

THE MELANESIAN DIASPORA IN INDONESIA

FROM PREHISTORY TO THE PRESENT



Directorate of History
Directorate General of Culture
Ministry of Education and Culture
Republic of Indonesia





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Published in 2016 by
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National Library of Indonesia: Cataloging in Publication (CIP)
A catalogue record for this book is available from the National Library of Indonesia

English Edition
ISBN : 978-602-1289-38-9

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FOREWORD

Minister of Education and Culture

Assalamu'alaikum Wr. Wb.

Praise and thanks to God the Almighty for His blessing and guidance that the Ministry of Education and Culture has completed the book *The Melanesian Diaspora in Indonesia: From Prehistory to the Present*. Indonesians make up 8% of all Melanesians, the rest being from Papua New Guinea and the Pacific. Melanesia has a unique culture and a long history in contact with Indonesia. Melanesians in Indonesia are found primarily in East Nusa Tenggara, Maluku, North Maluku, Papua and West Papua.

In commissioning this book the Ministry is hopeful that it will contribute to a wider understanding of the Melanesia in Indonesia, and its rich cultural heritage. The Melanesians have lived with the majority Austronesian population for millennia. During that time, the contact and interaction has been widespread and many Indonesians today share joint ancestry. In addition, culture and language have also interacted to create the unique diversity found all across Indonesia today.

The book's authors present a variety of perspectives on Melanesia in Indonesia, starting from the distant past and going through important historical periods to the present. The writers look through different perspectives, archaeology, genetics, linguistics, history, geology and culture.

The picture is one of the complex relationships that permeate all aspects of our lives in the present and provide a rationale for the unity of Indonesia – its motto being unity in diversity. We very much hope that inquisitive and discerning readers will find the book can help them better understand Indonesia's unity and diversity, especially with respect to Melanesia in Indonesia.

Wassalamu'alaikum warahmatullahi wabarakatuh.

Jakarta, September, 2016
Minister of Education and Culture

Prof. Dr. Muhajir Effendy



PREFACE

Director General of Culture

Assalamu'alaikum Wr. Wb.

This book has been commissioned to provide the public with up to date and objective information about Indonesian Melanesia.

It enlists the help of a number of academics, each with experience in a variety of fields that can help throw light on the nature of Melanesia.

The book's title is *The Melanesian Diaspora in Indonesia: From Prehistory to the Present*, and this reflects the broad historical scope of the book, from the earliest times to the present.

As the book's authors show, the reality of life in the Indonesian archipelago, with its great diversity of peoples, languages and cultures, is a complex one, better defined by contacts, accommodation and co-existence, than by simplistic, black and white divisions. It shows that beyond superficial generalizations, the Melanesians are an integral part of Indonesia today, and along with the majority Austronesian population, share not only language, and culture, but also ancestry.

The book is intended to make a contribution to interdisciplinary works on Melanesia and Indonesia. Melanesia is both a geographical and cultural region, and a good part of Melanesia falls within Indonesia's borders. In addition, the largest Melanesian population of any country is found in Indonesia. Indonesia's Melanesians are found in East Nusa Tenggara, Maluku, North Maluku, Papua and West Papua provinces. The people there are diverse and their language, culture and ancestry have links to thousands of years of contact and mixing between different groups.

The chapters look at Melanesia in Indonesia from the perspectives of the different scientific disciplines. An overview of the book's chapters is given here.

Chapter 1, *The Prehistory of Melanesia in the Indonesian Archipelago* by Harry Truman Simanjuntak reports on the prehistory of Indonesia, from the perspective of archaeology. This wide-ranging chapter reveals what we know about life in the archipelago from the earliest times. Chapter 2, *The Genetics of Indonesian Melanesia*, by Herawati Sudoyo, provides evidence from research in genetics about the biological makeup of the population in Indonesia. It is clear that there are not two distinct groups, Melanesian and Austronesian, but that intermarriage over the millennia have led to

a great deal of mixing. Chapter 3, *Language Diversity and Endangerment in the Melanesian Cultural Area*, by Multamia RMT Lauder and Allan F. Lauder provides a linguistic perspective on the hundreds of languages in Indonesia. It highlights the great diversity in languages and the value of this diversity in society. It also describes the worrying trend for some of these languages to be lost and describes efforts needed to maintain them.

Chapter 4 *Language Contact: Austronesian and Papuan Languages in North Maluku, Indonesia*, by Ninuk Kleden Probonegoro, takes an anthropological and linguistic perspective, but focuses on an area in eastern Indonesia where Melanesian and Austronesian communities are in contact. It describes the processes of contact, borrowing and accommodation that go on.

In Chapter 5, *Geological and Climatic Influences on Early Human Migrations in the Indonesian Archipelago*, Rovicky Dwi Putrohari looks at the Indonesian archipelago from a geological perspective and describes in particular the way that the environment, land and climate formed a context that enabled early modern humans to populate all parts of the archipelago.

Chapters 6 and 7 are from the perspective of history. Chapter 6, *The Dynamics of Melanesian History in Indonesia* by Desy Usmany and Yudha P. N. Yapsenang, provides a good overview of the status of Melanesia in Indonesia across different periods of history to the near present. Chapter 7, *The History of Maritime Networks and Cross-Cultural Contexts in Indonesia* by Edward L. Poelinggomang, focuses on how Indonesia's identity as a maritime nation is rooted in history. Maritime trade and international contacts have been going on for at least two millennia.

The final two chapters, Chapters 8 and 9, are both by Gregorius Neonbasu, a Catholic priest and anthropologist who is himself Melanesian. He paints a highly personal, and richly informed picture of life from this perspective. In Chapter 8, *Anthropology and Oral Traditions in the Melanesian World*, he focuses on the Melanesian identity as can be seen through

the oral traditions of the people. Meanwhile, in Chapter 9, *Searching for the Essence of Melanesia: History, Culture, Ecology and Spirituality*, he weaves a picture of Indonesia where the focus is on how philosophy, culture, ecology and the religious or spiritual experience of Melanesians forms an important part of the Melanesian identity.

We hope that the different and independent views provided by the authors will help to broaden our understanding of Melanesia in Indonesia. We also hope that it serves to show that the complex inter-relationships of Melanesia in Indonesia cannot easily be separated from the unity of the country and that getting along, as Melanesians have done for millennia with the Austronesian majority, is surely the best path to prosperity and dignity for all citizens in Indonesia in the future.

We hope that readers will find the book informative and useful.

Wassalamu'alaikum Wr. Wb.

Jakarta, September, 2016
Director General of Culture

A handwritten signature in black ink, appearing to read 'Hilmar Farid', with a stylized, cursive script.

Hilmar Farid

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INTRODUCTION

Taufik Abdullah

Cultural Situations in Geographical and Historical Diversity

“Like the moon of the sun, is the beauty of palace in incomparable Majapahit
The housing glooms, in such a fabulous arrangement, neatly grouped
Like the kingdom’s star light to other parts, especially Daha,
The countries in Nusantara World all bow down and abide by the Majapahit”

Then in the script he left, Nagarakrtagama, the Pujangga (the court poet), Mpu Prapanca listed the names of the regions under the supremacy—more precisely—the dominance of Majapahit, the great kingdom with center in the present day Trowulan. This great 14th century poet also mentioned the names of the regions conquered by Majapahit. He started the list of the regions from the Western part of Nusantara islands, continued to the middle part and ended in the Eastern region.

“There goes the islands of Makassar, Buton, Banggawi
Kunir, Galiyan, and Selayar, Sumba, Solot, Muar
Besides, Wandan, Ambon, or Maluku, Waini,
Seram, Timor and other islands are adjacent”

By mentioning those regions—from the West to the East of Nusantara islands—the script written in the Kawi language actually explains the question previously asked on how everybody imagined the above poem.

Through various historical events recorded in so many inscriptions and scripts written in the same period or one to two centuries afterwards—not just in oral traditions but also and more importantly in the witnesses of so many foreign resource persons, then it can be understood that the era of the Majapahit still stays in the memory of the inhabitants of the islands, who have scientifically been named “Indonesia”—a set of islands in the Indian

ocean, since more than a hundred years ago. By those explanations of the event which once took place in the region so called in order to unite all of the islands, then should it be doubtful if the border between history—the authentic events happening in the past—and the legend—the events that might have happened—has blurred and even instantly mixed up? Therefore it is understandable if the historical certainties of the region of the Majapahit Kingdom can also be blurred. In such a context, it can also be understood that in some regions, even in the Eastern part of the Indonesian archipelago, various types of oral traditions and collective memories of the Majapahit can also be told. Many stories about Gajah Mada have been repeated up to now. In a village's tradition in Bima, Sumbawa for example, there is a story which tells that this well-known Prime Minister of Majapahit was actually born in that village. In his teens, he left the village as he went wandering and finally arrived at the capital of the Majapahit. In his old days he came back home. After he died, he was buried in his birthplace.

Is it something weird if the past romanticism is made as one of the bases when the desired ideological rights, order and basis of the society are being fought for? Is the historical romanticism, which dreams of the return of the past imagined as a lost glorious era, a gaffe when the pride as a nation is rising up? Whatever the answer might be, a certainty in the historical experience shall not be forgotten—a historical romanticism is not only the basis of legitimization of a struggle to get a desired future but also the description and even idealism of the desired condition of the nation's socio-politics. Historical romanticism does usually accompany nationalistic desire because in such a feeling, one of the foundations as well as boosters of the spirit of struggle can be maintained. Isn't nationalism an ideological basis which dreams of creating a socio-political order which is ideal for the unity of the socio-politics already called a "nation"? So this romantic attitude has been growing up in seeing the past since the modern nationalism awareness.

Modern nationalism stems from political desire and socio-cultural desire to create a modern society and country—a situation which exceeds the level of welfare, the civilization level and the value of various societal bonds which used to be enjoyed by the ancestors. When the modern political desire has started to blossom in the society's hearts then the romantic vision of the nation's history is grown and spread more. In such a situation of feeling and ideal, the shadow of glory in the past becomes the source of inspiration even as the basis of aspiration in the future which is dreamt of and fought for. Nationalism indeed is an idealism which dreams of establishing a modern nation-society which has the tendency to get a romantic vision of the past moments which were not distracted by colonialism.

Didn't Bung Karno, in his well-known defending speech, *Indonesia Menggugat* (Indonesia Accuses, 1930), divide Indonesian history into three eras? With the courageous spirit in his defending speech before the colonial trial of the Dutch in Bandung, this famous PNI figure, revealed his "secrets" of campaigns.

And what were his ways of developing nationalism, his ways of making it alive? There were three ways:

First : we show the society that it has old days, the beautiful old days;

Second : we add up society's awareness that it has present days, the gloomy present days;

Third : we show the society the light of future days which are cheerful and bright, with the ways to create future days which are full of promises.

The glorious past, gloomy present, and very promising future? So there was his national struggle conducted; not to take away something which had never been owned. The national struggle was also a scrimmage full of idealism to regain the glory of the past imagined to have been owned, no matter that the glory has at present been forged by the nationalism desire which had been filled with an ideal to obtain the future full of hope. Nationalism has never been separated from idealism—either the one coming from the day of hope to get the variety and righteousness of the future desired, or the one having been nurtured with romanticism of the glory of the past which allegedly used to be owned.

In such a context, Muhammad Yamin (1903-1962)—a poet and an activist of youth organizations in his teens, a lawyer who was active in the national movement after growing up and a historian with a nationalist vision which was romantic till the end of his life—said undoubtedly that in terms of historical review the Republic of Indonesia was the third country which united Nusantara. After the golden era of Sriwijaya (7th-13th centuries) almost came to an end, then at that time the uniting power came into existence as well. In the glorious era to come, Majapahit Kingdom centralized in the eastern part of the North coast of Java island showed itself not only as the most dominant political power in the Nusantara world but also the uniting power of the entire region. Did the poet of the Kingdom, Mpu Prapanca, tell about these in *Nagarakrtagama* as a reality of present time?

However, in the turbulent time travel, Majapahit eventually experienced crises as well. When this happened, then Java also entered a new period in the flow of its history—an Islamic kingdom established in the Javanese world. Once it happened then the desire to go back to Majapahit era has since then become an impossibility, no matter the memories

even the shadow of its glory would still be told about the great stories repeated in a nostalgic moment. That's it—if a historical romanticism Yamin created is kept on track then the fall of Majapahit shall mean the second era of Nusantara in unity shall come to an end as well. But, in the turbulent never ending history, the power of history which has been exposed by the boost of nationalist spirit eventually succeeded in establishing a modern country—the Republic of Indonesia, a unity of national politics which went ashore to the coast of hopes to fight for.

If only there is or isn't any note to be used as a measurement to determine the level of luck of the center of power then indeed it has to be said that the Sriwijaya kingdom—a system of power which Yamin said as the first uniting power in the history of the nation—is not as lucky as Majapahit. Wasn't the glory of Majapahit recorded and remembered and even its fall was said in a saying—“sirna ilang krta ning bhumi”? This saying did not only express the coming of “the end period”, but also functioned as the number of years (1470 Caka or 1478 AD). However, it was not like that with Sriwijaya—its dynamics of historical journey was known but its initial era could only be identified after the understanding on the historical symbol was obtained, which was presented by the inscriptions left, while its ending was based more on the hypothesis which came from the understanding of various sets of events it experienced—the attack from the Chola kingdom and Pamalayu which was conducted by Kertanagara from the Singasari kingdom at the end of 13th century. Moreover, was what happened approaching the end of 14th century when Sriwijaya, which showed the impression of not wanting to admit the dominance of Majapahit, which was attacked and destroyed by this center of power rising up at the eastern tip of Java island. Then, allegedly after experiencing the almost total damage, the remains of the center of Sriwijaya kingdom became a stopover and inhabitation of Chinese pirates. As of the incidence, the name of Sriwijaya was slowly forgotten and eventually just disappeared in memory, but its historical appearance was unlikely to just vanish. So, no wonder there had been debates up to 1970s on the location of the center of Sriwijaya kingdom.

If the pages of history shall be turned over again then it will be clear that once in the era of Sriwijaya kingdom was not only a center of political power with trading and maritime activities incomparable in the Nusantara waters. According to a foreign report, especially from China and India, the capital of Sriwijaya was one of the centers of knowledge where the scientists thoroughly learned the teaching and philosophy of Buddhism. The role of Sriwijaya as the center of knowledge was told by I Tsing, a Buddhist monk, who purposefully came to live in Sriwijaya to explore Buddhism before continuing his study

in Nalanda (India), the most important center of thoughts and teaching of Buddhism. However, unlike Majapahit which left so many memories on record, Sriwijaya hardly left any scripts which could tell the dynamics of its political life—especially on the romanticism of the situation of the kingdom, such as those told on the kings of Majapahit—and also not on the wide area of its influence. Yet, the foreign report also said that Sriwijaya was a kingdom which once ruled the maritime waters of Nusantara. Perhaps this rare news was caused by, allegedly in the 11th century to start with, the Chinese sources gave the impressions that this maritime kingdom which originally centralized in Palembang, moved to Melayu or Jambi. Since then, Sriwijaya was mixed up with the name Melayu or even was likely to be forgotten, but the historicity blur of internal dynamics once experienced turned to strengthen the mythical values attached. Therefore it could be understood also that later a maritime kingdom which succeeded in becoming itself as one of the centers of world trading, Malaka, stated that the origin came from the arrival and the success of Prameshwara, a descendant of Sang Sapurba who got the support from Demang Lebar Daun, the ruler of Palembang, after going down from Bukit Seguntang. The incident allegedly happened in the beginning of the 15th century.

But who were the immigrants from Bukit Seguntang supported by this ruler of Palembang? If the claims considered authentic were to be used then it could be said that its origin was Sriwijaya—a kingdom which declared its existence in the three inscriptions from 17th century (as can be read and interpreted for the first time by Coedes, in 1913. So Palembang is the relic of the old Sriwijaya kingdom, whose historical existence is always remembered but its name once forgotten. This kind of origin of Malaka is the one told by Sulalatus Solihin or more known as Sejarah Melayu, written by Tun Sri Lanang, the former treasurer of Johor, who then became the head of district, Uluebalang, Samalanga, in the Sultanate of Aceh Darussalam, in the ruling era of Sultan Iskandar Muda (1581-1636).

Whether it was fate or just a coincidence of history, but in almost the same time with the fall of Malaka (1511) to the Portuguese, Majapahit was also in a critical situation of authority and power. An Islamic kingdom, Demak, which allegedly came from the family of Majapahit, had declared its existence and even expanded its influence to the outskirts and outside Java (among others was Banjarmasin in Kalimantan island). Since the fall of Malaka and Majapahit, the Nusantara world was not only the area of trade and political competition of some Islamic kingdoms which kept growing—such as Aceh-Darussalam, Banten, Mataram, and then Goa-Tallo (Makasar) as well as Ternate and Tidore—but also

the face-to-face moment with the immigrants, the traders and the missionary from the Western world with complete weapons supported by well tested shipping systems.

Hence, it may be said that since the 16th century when the Nusantara world was entered, it became an open competition area. In such a situation was the relationship between the kingdoms to take place as an ally or an enemy—two possibilities which may come and go consecutively. An old “enemy” can now become an “ally” or be slipped into the opposite dynamics of history. At this moment is another kind of relationship to be developed—between the overlord kingdom and the vassal kingdom. However, similar to the dynamics of ally-and-enemy, overlord and vassal are also a kind of relationship which is not stable. What is also important is that since the fall of Malaka, the region of Nusantara looked like slipping into a race of religions—Islam and Christian. Therefore it could be understood as well if the 17th century was not just the century when the accelerating process of Islamization took place but also the beginning of Christianization process. If only our view were centralized at the historical dynamics of the Eastern part of Nusantara islands then the statement from B. Schrieke (Indonesian Sociological Studies, 2nd edition) that the major factor of Islamic distribution was a “race with Christianity”—somehow would be true.

In the socio-political situations of imagining the three types of instability—the first, the flare of overlord-vassal relationships; the second, ally-enemy relationships which came and went easily; and the third, the start of Islam-Christian competition—then all of the friendly situations sung by Nagarakrtagama seemed to just disappear in an instant. But in a situation of imagining “a stable instability” between the centers of power then the historical friendliness from various centers of power got more developed. Another important thing was the tendency how in this period some newly grown centers of power started to also show the meaning of their existence in the dynamics of historical journey. So, in an “instability” situation when the socio-economic and political turmoils were flowing, then the political power from the Eastern part of Nusantara got more to record.

When Goa-Tallo had succeeded in persuading Bone, the biggest Bugis kingdom, and other kingdoms in South Sulawesi to embrace Islam, then this kingdom of Makasar people also started to expand its political and religion influences to the islands located in the Eastern part such as Buton island and others. When these twin kingdoms of Goa-Tallo succeeded in helping Bima’s heir to regain its reign which once was taken by the uncle, then this kingdom of Makasar was also successful in taking Bima to go back to Islam.

Since early 17th century, it could be said that all of Sumbawa island was already under the influence of Goa-Tallo. The same was with Manggarai, in the Western part of Flores Island. This area was once also under the influence of Makasar kingdom's culture and religion, before eventually—two generations afterwards—succeeded in releasing itself and embraced Catholics.

In the meantime, other islands had also succeeded in making themselves as the center of power individually. Ternate, Tidore, Makian, and Bacan had become the producers of cloves which allegedly were abundant. The same thing could be said with Jailolo, which was more known as Halmahera Island, a big island which was located in the Eastern part of small islands, Ternate and Tidore. Mythologically, Ternate and Tidore were in brotherhood but in reality of history both were always in a competitive competition. Maybe because of a mythological relationship which was always on guard under a marriage bonding, Ternate and Tidore expanded its own political influence to different directions. While Tidore expanded to the Western and Northern parts—the islands in the Eastern parts of Sulawesi—Tidore directed its attention to the South. So the Northern coast of Papua and the region or Raja Empat island (the Southern part of Papua island) were under the political influence of Tidore. Therefore, it could be understood why the inhabitants in both regions became Islamic followers. Tidore came not only for ruling and gaining economic advantage but also developing the religion. The same was with the regions under the influence of Ternate.

However—since the 17th century—both kingdoms in the small islands near Halmahera had had to face the dynamics of conflicts between Portuguese and Spain. The two European kingdoms with the strength and the power uprising after succeeding in conquering the Islamic sultanate which had existed in the Iberian Peninsula (the region of Spain, Portuguese and Catalan) since the 7th century—but their political dynamics would not come to an end. Therefore it was understandable if various stories imagining heroism and even romanticism met the historical page of the two small islands. But in this situation was also the attachment of both islands to Islam became bigger as well.

In such a situation of the growing desire of strengthening faith and knowledge on religion, Sultan Zainal Abidin of Ternate purposefully came to Makasar and then continued to the review center of Sunan Giri in Gresik, a city near the center of Majapahit kingdom. When the story of Sultan Zainal Abidin—may be the third Islam king in Ternate—had been told, then the role of Sunan Giri in the Islamic process in the Eastern region of Indonesian islands could not be forgotten.

In the meantime, the trade and political competition had also become more international. There were times when the European power—Spain, Portuguese, Dutch, and then UK too—was competing and even defeating one another, but there were also times when they let go off their own position. In the meantime, the local kingdoms kept joyfully searching for opportunities to maintain dignity or even expand their influence. In this situation when the competition was multi-faceted, Timor Island was practically split into two—the Western part was ruled by the Dutch, while the Eastern part by the Portuguese. The Majority of the indigenous people of Timor Island were Christian.

When various events leaving strong impressions were thought about, then there came also a question of what was the meaning of united situation expressed by Prapanca in Nagarakrtagama? What was the real meaning of unity of the entire Nusantara world he described? Were all of these just political desires poured into historical descriptions in a mythological situation as once uttered by a well-known Dutch scientist (CC. Berg)? Or in other words, was a situation imagining a political unity under Majapahit just a myth? Were all of these only real in the historical stories resulted from a political illusion? Or the claim of power unity in real was an authentic description of historical reality as what Mohammad Yamin wanted to focus on? Whatever the answer might be given, an admittance of a simple reality was unavoidable—since the incidence was recorded or just a part of collective memories, the Nusantara region from the Western tip to the Eastern tip had been involved in the series of incidence and events which were related. There were times when the relationship was pretty intensive but there were also times when aloofness of relationship also took place.

If the old stories inherited from generation to generation and the collective memories which might have mixed up with myths or even fantasies were learned then various stories on the dynamics of maritime life would just reveal like that. When the political incidence and the beginning of cultural bond which had been recorded in the inscriptions or remembered in the traditional historiography or collective memories had been taken care of then besides the stories on the dynamics of maritime traditions, the stories on various physical anatomy and the differences of language systems as well as vocabulary would be obtained. The fall of a big power such as Sriwijaya (at the end of 13th century) and then Malaka and Majapahit (in the beginning of 16th century) turned out not just as the cause of the setbacks in the maritime traditions. The fall of the two big powers even widened the area of cruise, sailing and even trading.

In such a situation, the trading and maritime relationships between the coast of Papua—Biak and Numfor—and the other islands took place. The merchants brought along their trade to Tidore, Ternate, Seram and Selayar as well as other regions when the Eastern muson came by. When the Western muson had blown, then it was the turn of the merchants and the Javanese sailors to go along the coast of Sumatra to the North. In these maritime dynamics then there were various kinds of trading networks and cultural relationships to take place. It was when the transfer of inhabitants to possibly happen and even the conflict could not be avoided forever. The maritime tradition was usually to blur all kinds of differences. In such a situation then all kinds of cultural foreignness as if enjoyed trying to hide their authenticity. The world of maritime and trading was the area which got used to blur all kinds of cultural differences in the communication system—an event which took place in a diversified situation.

When the crisis in political power was already unavoidable, then there were also many possibilities in the trading and maritime world which were tried to take place. In the dynamics of relationships which demand trading advantage, the process towards adjusting the meaning of the symbols for the sake of realizing the communicative relationship was possible to happen. The maritime and trading situation not only created a more open cultural relationship—in a sense of possibility to comprehend cultural symbols of other culture—but also explored the growth of intermediary society—between the foreign maritime world and the remote society who was likely to stay in the situation of cultural origin.

Despite all of the political claims to be proud of, Nagarakartagama could also be seen as a historical witness on how relativity of the cultural limits between Majapahit and the centers of local power and the cultural world of the Western region had happened. However, what was not less important was this script also confirmed that Majapahit was also the center of power which had the relationship with some locations in the Eastern part of Nusantara world—a region consisting of so many kinds of cultural traditions, centers of power and hundreds of remote communities in the suburbs of big and small islands. Such situations did not experience fundamental changes but also after Western nations came along and succeeded in dominating the maritime and commercial relationship. The existence and competition among them—Portuguese, Spain and Dutch—and even their success to hold monopoly in trade and government just strengthened further the cultural tendency which was open in nature. When eventually the Dutch succeeded to put aside the

Portuguese and Spain from Tidore, Ternate, and Halmahera, the close relationship of this Maluku kie raha island and the surrounding area did not experience a lot of decline.

So be it, it could be ensured that the inhabitants of big islands in the Western part of Nusantara world had long been involved in the trading relationship and even sometimes in politics as well, with the inhabitants residing in the small islands in the Eastern part. If the possibility of relationship dynamics were already like this then should we still wonder if the blood mixture was also a frequent thing—even very likely—to happen? This reciprocal relationship had started even since the period of kingdom system which was not equal yet to become part of the political tradition in these small islands. When the maritime talk and historical bond had become more friendly then the differences in languages—not just the difference in vocabulary—as if they had just become meaningless constraints. A system of cultural communication seemed to have just been created like that. Even the difference in anatomy among the inhabitants who seemed to come from different races had just vanished when the trading and cultural relationship were involved.

However, when the academic desire has instantly attracted scientists to find out the weird culture being faced, then at that time there are many kinds of differences to be questioned. How many languages are used by the people all over the country? Why is a small island possible to have two to three even more different languages? How was it possible that the differences in physical and languages happen to those who live in different islands? When such questions have been asked then the cultural relationship and even the differences of civilization rate are allegedly just making more problems.

Melanesia and Austronesia in Historical Dynamics

After moving around for some time in Indonesian islands, finally—in 1859—Alfred Russell Wallace, a British scientist and explorer, came to a conclusion that the region actually consisted of two parts—the West and the East—which were different. The animals existing in both regions, which were separated by the strait between Kalimantan and Sulawesi and went on to the strait of Lombok, turned out not to be the same. There were animals only found in the West which did not exist in the East or if the same animal was found in both areas, its physical characteristics were different. When Thomas Huxley popularized the findings of Wallace (1868) then the world of knowledge knew more about what was called the Wallace Line. Wallace’s book entitled *The Malay Archipelago* (1869) was a classic work describing the structure and history of the nature in the Nusantara

world. He was the first scientist who academically said that the Western part was inhabited by the “Melayu” race, while the Papuan race inhabited the Eastern part—in Papua island and the surrounding. Wallace did not mention the term “Melanesia” in his book although it was already introduced by a French scientist, Dumont D’Urville in 1832. However, it did not make sense because unlike Wallace, D’Urville’s attention was Oceanic region—a region with the inhabitants consisting of four groups based on physical characteristics, which were “Malaysia, Polynesia, Micronesia and Melanesia”. In the next development, the four concepts visualized more on the cultural traits than racial characteristics.

The meaning of Wallace’s existence in the development of science was also interesting because he had the chance to write a letter to Charles Darwin, a scientist who was already well-known. He wrote it when suffering from malaria in Ternate. Allegedly when Wallace’s letter was received, Darwin happened to be in search of the correct answer to a scientific problem being faced. It was perhaps just a coincidence but in his letter, Wallace said that he had come to a conclusion that not all of the living creatures could always survive—some just came to extinction although some also made it to adapt to various kinds of natural changes that had happened. Wallace believed that the natural tendency seemed to show the implementation of the principle “survival of the most fitted”. Under the opinion visualizing such a pure academic inspiration, it could also be understood why many scientists could not let go of the contribution and the meaning of Wallace’s existence in the development of knowledge. But, indeed, Wallace could not compete with Darwin’s reputation, the scientist he looked up to. Either directly or indirectly to Wallace’s influence, Darwin turned out with the definition which has now become classic in the development of knowledge—“survival of the fittest?”

The story of Wallace is good to remember—although it is just for pride. Didn’t he write that very inspirational letter from Ternate, one of the kingdoms which used to be glorious in the history of the country? So, it was reasonable if in 2008, the Indonesian Academy of Sciences (*Akademi Ilmu Pengetahuan Indonesia*) held an international seminar in Makasar under the theme of the **Letter from Ternate**. Besides talking about scientific matters, this international seminar was also aimed at commemorating 150 years of Wallace’s writing the letter from the small island which used to be a big kingdom, to Darwin. The seminar, attended among others by the scientists from some countries such as Europe, America, Australia and Asia, was held one year before the international commemoration of 150 years of “the invention” of Darwin’s theory of evolution being commemorated everywhere. But, aside from the dispute on “who was faster than whom”, the difference between the West

and the East of our country is also important to note down. Aren't big islands located in the Western part, such as Sumatra, Java, and Kalimantan but surrounded by small islands? Isn't the Eastern part mostly dominated by relatively small islands? Not less important is—although in the historical dynamics the mixture has happened, but generally it can be said that, if the Western part is dominated by the Austronesian descendants then the Eastern part is by the Melanesians.

If the story or to be exact the academic reconstruction effort of the formation process of geographical region has been discussed then it means the efforts to review the story of thousands of years of geological history shall also be reviewed. Based on the result of academic reconstruction on the age and the growth of geographical region, Sumatra, Java and Kalimantan originally were part of Asia continent. But tens of thousands of years ago when the iced age passed by, the islands started to separate themselves. Hundreds years afterwards, the inhabiting process of some part of these separated islands commenced. The Initial Modern People—Australomelanesians—had started to enter the islands which are now called as Indonesia. Although they—the ancient people—were still living in the caves and seemed to have used stone tools. It was around 4,000-3,000 years before Anno Domine or—known right now as B.P. (Before Present)—the Austronesian element, which had been mixed with the Mongoloid element, came over through two paths of the West path—from the Malay Peninsula to Sumatra, Java, and Kalimantan, and the East path to Taiwan, Philippines to Sulawesi and Kalimantan. When the Austronesian groups had started to inhabit in this region then the Australomelanesian groups (the ancestors of Melanesia) started to leave the Western part of Indonesia. However, it could also be predicted—as shown by a few hills—the mixture between some elements of the two races did take place. If the situation should be extreme then it could be said that the sub-race of Melanesia of Australomelanesia inhabited the Eastern part and continued to the region now known as Melanesia in the Pacific Ocean; in the meantime the Austronesian race more inhabited the Western part of Indonesia. However, the spread of Austronesia to the Eastern part also took place—the Northern part of Papua and the surrounding islands and even there were those who kept moving to some islands in the region now called as Melanesia. It was just, as a scientist (Paul Silltoe) once said in one of his writings, “not easy to determine exactly whether based on geography, culture, biology or anything, when Melanesia started over and the neighboring region ... ended”.

But in general, it can be said that Fiji, Papua, New Guinea, Solomon, Vanuatu and New Caledonia (France's property) are included in the Melanesian region. All of these are outside

the region of Nusantara islands; has Nagarakertagama never mentioned this region? In the meantime, the majority of the inhabitants from the Eastern part of the islands are included in the Melanesian race. In other words, the majority of indigenous people of Maluku islands (and of course the province of North Maluku), East Nusa Tenggara and Papua belong to the Melanesian race.

The dynamics of moving out and even mixing up which happened in a couple of thousands of years left the relics which were not in the languages used but also more or less in the physical features. Therefore it is also understandable that Indonesian islands belong to a rich region with a number of languages used and various kinds of physical features as well as colors of skin. It is just that right now either the region with Austronesian or that of Melanesian majority can be concluded as a region with so many languages being endangered. Moribund languages is one of the characteristics of the Indonesian islands right now. That's why it can be understood that speaking about the number of languages which are now still being used by the society can create disputes too. How many languages are still being used? In a small island in the Eastern part of Indonesia, LIPI researchers once found a language which was only known by one old man.

If so, how many languages are still being used for communication in the region of Indonesia right now? According to Grimes (2000) there are 719 languages recorded in Indonesian islands—but 13 may have been extinct. So the languages still actively used are 706 languages. But this figure seems a problem too, because according to the record of Badan Bahasa (National Language Agency) the number of languages which are still in use is just 649 languages. Which number is then considered correct? But if we think of a certainty without any dispute then it will be hard to get. It is because the spread of languages and the limitation in the number of users are not an easy field to come to and not an easy constraint to cope with either. How many users are there so the existence of languages can still be considered? However, out of the disputes on this certainty, what is clear is that most of the active languages include a Austronesian group—the users are generally in big islands such as Java, Sumatra, Kalimantan and Sulawesi, and other islands in the Western part of Indonesian islands. According to the last estimate, 69.91% of the total Indonesian population are users of one of 13 big languages used by the inhabitants of four big islands besides Bali, Lombok, and Madura. Those big languages are—according to the order of size—Javanese, Sundanese, Malay, Madurese, Minangkabau, Batak, Bugis, Balinese, Aceh, Sasak, Makasar, Lampung and Rejang. The language mostly used is Javanese of around 75,200,000 users, while Rejang language (1,000,000 users) of South Sumatra is the smallest “big language”.

Is the language used by around 39% of the other total population in Indonesian islands? In fact most of them are users of non-Austronesian languages. The users of the languages including in this language group are mostly spread out in the Eastern part of Indonesian islands, such as the islands of Maluku, East Nusa Tenggara and Papua. Under such a situation, it can be understood that each island, even small islands, can also have some languages. All are included in the Melanesian language group.

Through a more advanced transportation and easier temporary or permanent moving out—despite of course the more usage of various kinds of modern communication starting from school to newspaper, radio, TV and the like—it can also be understood that many of the languages with less users are threatened by the danger of extinction. Around 52 languages, for example, just have around 100 people or less users. Around 169 languages are still the language media for 500 users. An example is given by a newspaper. The Yamdena island in Tanimbar islands (West Maluku Tenggara municipality) is of 3,333 square kilometer but has two different languages. The Makatian, who live in the West coast, speak Seluwasan language, while the Sangliat Dol village uses the Yamdena language, in fact the distance between the two regions is just 70 kilometer and both are not constrained with meaningful natural constraints. As news, this simple fact might also be amazing, isn't it weird if we remember the situation of a big city? However, each research wishes to record a language situation in the islands in the Eastern region, even also in small islands in most of the Indonesian region will easily start its research report with the case study like this news. In Buton Island there are four different languages while in Sumba Island there are seven languages and so forth. Therefore it can be understood that besides Badan Bahasa there also some research institutions—among others is a research center within LIPI—which has joyfully recorded and studies these almost extinct languages. Of course the plan of the Ministry of Education and Culture to oblige the first graders to learn the local language is an effort to extend the age of these languages, besides, of course, maintaining the richness of the nation's culture.

If the geographical description of Indonesian islands has been remembered, then what will be remembered in the first place if not the big islands adjacent one another, while the small islands often are felt to be far away and even remote. It is just the set of what used to be called Small Sunda islands but now has been called—according to what Muhammad Yamin suggests—Nusa Tenggara, which looks almost well arranged side by side. When this geographical description has been made a means of the inhabitants then what is immediately imagined is the spread of so many different languages—sometimes a

bit adjacent, but quite often have high diversity levels, especially in terms of vocabulary. If it happens in a language situation then it can be imagined that the difference in traditions and habits of local society, assuming that various cultural foundation is not so much different. Finally, shall it be questioned if a simple but fundamental question is also asked—what are the possible things to possibly involve the relationships of hundreds of ethnicities who inhabit hundreds of islands and have hundreds of languages as well—so that they also feel the bonding under the jargon *Bhinneka Tunggal Ika*—which came from an old language seldom or even never used now? The question is more important because more than one third of population in the Indonesian islands include other races. If the majority of the ethnics are said to be included in the Austronesian race, then the other and smaller race, the Melanesian—so in fact their language and biological characteristics are closer to the indigenous of various islands such as Solomon and Vanuatu and of course Papua New Guinea, is located in the Pacific ocean?

Once the question has been asked, then should we doubt if the traditions of trading and sailing which have taken place since the old times—at least since the era of big kingdoms to have expanded their exploration—are just remembered in an instant? But, in the old times when moving out and transferring without any stop as if filling out the regions with permanent inhabitants, now sailing gets the tendency to widen the region known or searching for food and items needed. The sailing exploration did not just give some influence to the immigrants but also left some impressions for the place visited. One of the impacts of such exploration and sailing was communication. If the visited area gave the possibility to show what was wanted then it could be imagined that when the direction of wind was already suitable then it would be revisited. In the next process, some areas would be known better as a popular stopover of the sailing ships. If the trading prospect was good and the direction of wind was also regular, moreover the ruler and his people could serve the migrants well, then it could be imagined that the next development was this ship stopover might then be a popular trading port. What was the consequence if this tendency kept happening continuously? Indeed if each event was compared it might not look the same but a general pattern could also be found.

It could be understood that if a port was frequently visited then it would develop more and—if compared—the port not only became one of the trading centers but also an area where there was a melting pot of cultures. One of the classical examples in this sense—considered classic because of its fame—was Malaka, a very famous trading center in the 15th century and the beginning of the 16th century. So some foreign reports once also said

that Malaka was a city where people were talking in “one thousand languages”. In other words, the trading port was one of the main doors for cultural communication to take place. When a port had been able to survive then a city had also been born. The society which was “mixed up” in nature had also realized itself. Once it happened then a door to a more open cross-cultural communication also started. Therefore, should we wonder if in the port cities there was a mixed Malay language which could also be a communication language? Was it a strange thing if under such a situation the influence of a new religion could also enter the awareness of the local people? This was what happened when Ternate, Tidore and others got acquainted with Islam and also in this situation the Malay language started to enter the life of the local people. When the two kingdoms expanded their trading and political influences then we could tell that they did enjoy spreading out what they had got in the process of cultural interactions.

The cases in Ambon and Ternate were quite unique too. Sultan Zainal Abidin left for Giri to master the knowledge of religion. Here he met a great figure from Tanah Hitu (Ambon). When Sultan Zainal Abidin returned to Ternate, he made his kingdom into a power for Islam and succeeded in attracting the small kings around Ternate, which among others was Gorontalo-Limbotto. The ally became the channel of Islam distribution in North Sulawesi. In the meantime, it was said (like told in Hikayat Tanah Hitu) “when the Prime Minister of Pati, Tuban, came from the land of Java, then Hitu embraced the belief in Allah and Mohammad as well as the religion of Rasulullah ‘allahi wa sallam”.

This case was an example of how trading and sailing as well as the growth of coastal cities brought about the arrival of the desire to visit other regions. In this situation, there were two things to happen consecutively—which were the spread of Islam and the use of Malay language. The pairing of Islam and the Malay language had become very ordinary in the Eastern part of Indonesian islands since the drawback of the two big powers—Majapahit and Malaka. Then it could be said that the trading relationship was the bond between Islam and the Malay language. However, was it something unique?

Well, in the period of what Schrieke told as “the race with Christianity”, the same thing also happened with Christianity—the Malay language became the channel of spreading out and understanding the religion. When Fransiscus Xaverius spread out Christian in Ambon island—in a region next to Tanah Hitu—he had used the Bible in the Malay language, the translated version done in Malaka, which after having been ruled by the Portuguese since 1511 fell to the Dutch in 1640 but was always under the threat of trading power and local military in the waters of Malaka Bay and the Java Sea. Allegedly because of the ability of

the Christian Ambonese to use the Malay language then the Dutch government used them in the government and—of course—the military.

In the meantime the historical dynamics kept going on. The 17th century to the end of the 19th century was a critical era for the islands now called as Indonesia. It was at that time when the power of the kingdom which had shown itself since the fall of Malaka and Majapahit—Aceh-Darussalam, Banten, Goa-Tallo and even Ternate and Tidore—should face the power of the West, which got more successful to be dominated by the Dutch. The period of three centuries could also be said as a period full of agitation. So when the 19th century had been entered then there were just some sultanates which were still strong to face the Dutch that had made its existence official as a “colonial country”. It was in this era also that the Dutch not only succeeded in establishing new cities in some regions which had been ruled but also started to run government affairs. Even since the middle of the 19th century, the Dutch government established schools for the purpose of employee candidates which might help in arranging the local people. This effort had been tried by the Dutch since the end of its power. But it could be imagined that the regions with most chances to the study—except in two-three cases—were also the regions with the longest time of Dutch occupation. When the 20th century came, then all of the regions of Nusantara world could be said under the power of the Dutch India. At that time there were some regions where the local societies had begun to know the life of the city, with heterogeneity and racism-discrimination in nature.

It can be imagined how unavoidable the colonial nature is but the life of the city can also be more open for opportunities for various groups despite the differences in ethnic, religion and even economic level to get to know even understand each other. In religious education, which is always maintained, it has been accompanied by general education, it can also be imagined that the barriers which distract the relationship among ethnic groups get more open. If since the end of the 19th century some cities in Java Island and one-two cities in Sumatra have known the newspaper, then since the beginning of 20th century some other cities outside Java and Sumatra has also started to know the newspaper and realized the meaning of news exchange in societal life. If the printing culture has started to become part of society’s life then it will be not just what happens in other places can possibly be known but also what is being thought of or considered about by the people from other regions might have also been understood.

That is about life in the city, which is heterogeneous and discriminative, which can give awareness of equality with some part of immigrants and the people who inhabit other

places but also the feeling of difference with other groups, which are in power. With the spread of education—although mostly is in the lower level only—but they have started to know the events and various thoughts in other places then should we still wonder if the feeling of being in the same fate can also develop. If this has started then the process towards developing nationalism which exceeds loyalty among the people of the same village or even region with the same cultural legacy has also developed.

Then when the story has to come to an end, who will be wondering if when the time has come and is over, the proud of being an Indonesian, which allegedly starts to develop in the region of the Austronesians, has also become the belonging which cannot be apart from the Eastern part of Indonesia, included in the Melanesians?

CHAPTER 1

Truman Simanjuntak

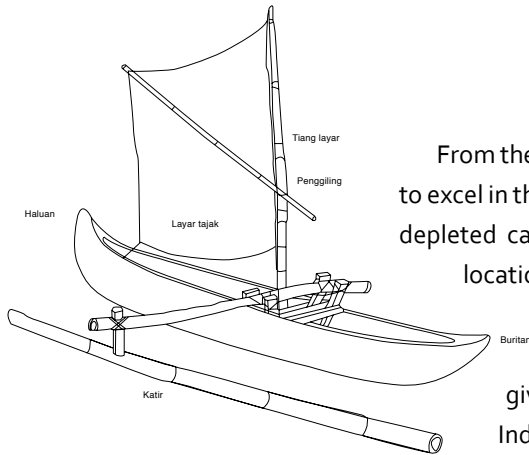
The Prehistory of Melanesia in the Indonesian Archipelago

Introduction

Melanesia, Melanesoid and Melanesid are three names or terms with the same prefix, and questions are often asked about similarities and differences in meaning. Melanesia is the most widely used name and it refers to the population and area they reside in. It originates from Greek: *melas* which means black and *nesoi* which means islands. It was Jules Dumont d'Urville (1790-1842), a French explorer and botanist who in 1832 coined the name to refer to the population with dark skin residing in the archipelagic area starting from the western edge of the Pacific Oceans through the Arafura Sea to Fiji. Melanesoid is a bio-anthropological term referring to the taxonomy of the indigenous population residing in the Melanesian region.

Together with the peoples of Micronesia and Polynesia, the Melanesians inhabit the vast Pacific archipelagic region. To the west of this region, there is the vast neighboring archipelago–Indonesia.

All four of these regions, Indonesia, Melanesia, Polynesia and Micronesia, have the word ending –nesia, and are surrounded by the continents of Asia, America and Australia. The Indonesian archipelago is composed of many islands of widely varying size. The region is considered to be a part of Southeast Asia, and has a number of big islands such as Sumatra, Java, and Kalimantan, and also Papua which is shared with Papua New Guinea (PNG), while the other –nesia regions do not have such big islands. Micronesia and Polynesia are comprised of small islands which are mostly just dots on the world map. In the past, when the choice of settlement areas was really available, the balance between the group of people and the environment of small islands, especially the isolated ones was extremely fragile. The limitation of resources which were found on the islands often became resources for exploitation only, not for inhabitation. It was different if the resources were promising, where people were interested in settling down and with a limited community had the tendency to possess strong group ties, developing languages, and binding social regulations.



Outrigger canoe: a single rudder of fishing canoe.
Source: Yopie 1981

From the perspective of archipelagic geography, the four regions have the opportunity to excel in their maritime context. The ability to manage marine resources which are rarely depleted can help build strong countries with a maritime identity. Their geographical locations are very strategic at the crossing paths that connect the three continents Asia, America, and Australia. The geographical position of the –nesia countries gives them a strong bargaining position geopolitically as well as giving them opportunities for economic development and maritime technology. Indonesia, and the three Pacific regions Melanesia, Polynesia and Micronesia have strong links in their history and cultural roots. Indonesia, Micronesia and Polynesia (and part of Melanesia) on the one hand have a joint history regarding the origin and distribution of their ancestors who, based on archeological and linguistic evidence, originated from Taiwan (Bellwood, 2000). Belonging to the Mongolic group, speaking Austronesian languages and exhibiting Neolithic Culture, they entered the Indonesian archipelago around 4,000 years ago and subsequently migrated eastward till they reached Melanesia around 3,500 years ago. From there, the migration continued to the other islands in the Pacific eventually developing into the populations we see today.

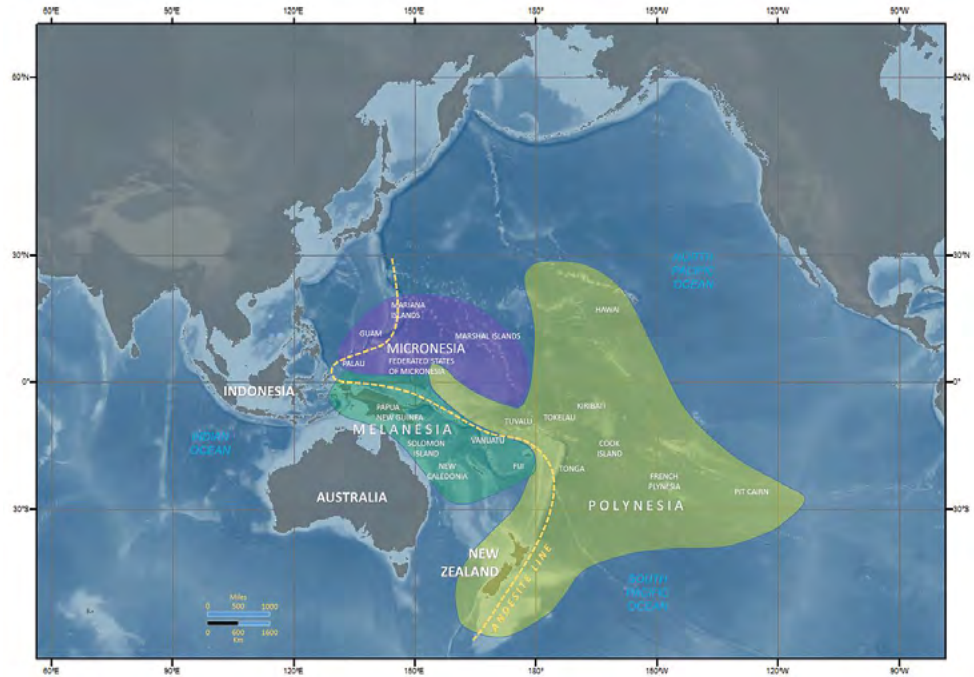
Indonesia and Melanesia have another joint history, long before the arrival of Austronesian language speakers. Both have the same ancestors which the experts refer to as early modern humans (EMH) or anatomically modern humans (AMH).

These early modern humans entered Indonesia from their migration out of Africa and then spread out to western Melanesia and Australia. Considering the existence of the initial ancestors tens of thousands years ago in the archipelago, the genetic journey from generation to generation up to now has been very long. In this context, we can see that both the Indonesian and Melanesian regions have had interconnections from thousands of years ago, and they form the root of the history of Indonesian civilization in particular and in both regions generally.

The Melanesian Population

The Melanesian population is often treated as a race hence the term “Melanesian race”. However, this term is not appropriate from the science of biology. Correctly speaking, the Melanesians are a subgroup within the human race.

Map of Indonesia, Melanesia, Micronesia and Polynesia: a very vast archipelago which have a related history and culture.



The meaning of race within the framework of taxonomy is a subspecies-level of evolution under species. All human populations living in the world now are grouped in one species called *Homo sapiens*. The evolution process formed physical characteristics which created population groups which are different one another. These groups are what the experts group as subspecies or as races. When in one race there is another group with characteristics which are different from one another, then this group is categorized as a sub-race or part of a race. Based on this explanation, the Melanesian population is a sub-race and together with the other sub-races, it is grouped as the Australomelanesoid race (Jacob, 1967), a term which includes Australia and Melanesia based on settlement geography. The Australomelanesoid race and other races in the world all belong to the species of *Homo sapiens*.

Regarding the genetics of races or sub-species, because part of a species applies an open genetics system in a sense among the races, there is the possibility of gene switching. Because of this, the difference between races is not as clear as that between species. Races also change faster than species and there is often a graded physical character among races, which make us difficult to find an unambiguous border between one and another (Jacob,

1978). This type of gradation has made it difficult to count the number of races in the world and there are a number of opinions on this. Some say that races do not even exist, only differences in gradation of the gene frequency called clines. Others generalize species and races so that they see there being only one race, *Homo sapiens*.

However, in the global population, there is clearly a phenotype or set of distinct differences in the physical appearance of the human population groups. Through the grouping of such characteristics we can distinguish three main races: Mongolic, Caucasoid, and Negroid. Further, two more smaller groups can be distinguished on the basis of physical characteristics: Australoid and Choisanid (Jacob, 1967). There are many other views on this, the most complex or detailed distinguishes 53 human races (Barbujani, 2005). Despite these different views on the classification of races, we need to understand that at present time there is almost no such thing as a pure race because inter-race marriage fertility has created mixed descendants everywhere. Because of this, the concept of race is being left behind, especially because its usage is often misunderstood as a viewpoint that supports racism. Many anthropologists and linguists avoid these terms precisely to avoid falling victim to being accused of being racists.

Evolution, which creates typical population characteristics which may be grouped in races and then in sub-races, actually happens because of the combination of external influences and local evolution of different intensity. External influences, for example, can happen through cultural or biological interactions with other populations nearby, or with those that have come from a distance. These interactions with visitors can influence the dietary habits or the nutrition patterns of the indigenous population so that they gradually lead to physical changes. The biological interactions through marriage can create descendants with mixed characteristics. These mixed descendants may gradually form a population with their own typical characteristics. Local evolution happens when the population living secludedly in a region experiences desperation or limitation of gene flows with the initial population. This condition makes the natural processes of mutation, isolation and selection gradually form specific physical characters so as to create populations which are different from other populations.

Races in Indonesia

The concept of race owes much to the anthropological descriptions developed around the 20th century and which still are used as references by many researchers up to now. There are two main opinions on the existence of races in Indonesia and the surrounding area. The



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Melanesian people from Eastern Indonesia, Melanesia and Australia.

first connects it with the arrival of four migration waves that happened at different times. These are: Negrito, Australic, Proto-Malaya and Deutro-Malaya. In addition to these four races, three others may be added: Veddoid, Dravida and Melanesoid in different layers (Jacob, 1967). The second opinion recognizes just two migration waves, the Australid and Mongolic. Australid is grouped as a separate race comprising the sub-races of Australid itself, Melanesid, Papuid and Dwarves (Coon and Hunt, 1965).

Australid has been defined as a sub-race which together with the sub-races Arafurid, Melanesid, Papuid, and Tasmanid, can be grouped into Australomelanesid Race. The Australomelanesid race has the characteristics of: average to tall appearance though some are short, muscular, dark-brown to dark skin, curly to spiral black hair with some exceptions of corn red hair, hairy, big noses, thick lips, sloping, narrow forehead, average to oval and high head shape, long oval face, deep nose root, short to tall body. This race resides in the eastern part of Indonesia, Melanesia, Australia, Tasmania and the neighboring geographical regions (Jacob, 1976, 1978).

The sub-race Australid refers to the indigenous Australians whose ancestors arrived at least 45,000 years ago. Evidence can be found of the human remains found in Lake Munggo, Keilor, Kow Swamp, Cohuna, and so on (Hiscock, 2008, Smith and Sharp, 1993); they have long heads, flat foreheads, small skulls (1280 cc), wavy to curly hair usually of dark brown to reddish gold, protruding forehead, short-wide and flat face, wide nose, and thick lips. The Australid population includes the Australian Aborigines and those residing in Southeast Asia at the end of the Pleistocene. The rest were found in Niah Cave, Kalimantan, Malaysia with the age of around 46,000 years ago (Harrison, 1959) and in Tabon, the Philippines with an age of around 30,000 years ago (Barker et al., 2007) and the newest maximum age was around 47,000 years ago (Fox, 1970). These findings were

considered general phenotypes of most of the inhabitants in the southern part of India, Sri Lanka, and some population groups in the Southeast Asia, Papua, Melanesia and Australia at that time.

The sub-race of Melanesid is found in the Indonesian and Pacific regions, including Fiji, New Caledonia, New Hebrides, Banks, Santa Cruz, Solomon, New Britain, New Ireland, and Admiralty. The average height was 165 cm, with dark-brown skin, sometimes very dark or copper red, stiff hair, curly, spiral or wavy with black or reddish color or dark brown. Their head was high-narrow oval in shape but more circular than that of the Negroid. Their forehead was circular, wide and low but some tilted backwards. Their face was long, sometimes average in shape, their noses were big, flat and wide. There was a mixture with Polynesian in Fiji, New Caledonia, and Loyalty. The relics of Melanesid were found in the shell hill of Binjai-Tamiang with the characteristics of short appearance with oval skull. Together with the similar relics in the Southeast Asia Land, they were called Paleomelanesid (Dizon et al., 2002). The findings of human remains in Lawa Cave, Sampung, East Java also depicted the dominant characters of Melanesid with some Australid features (Heekeren, 1972). The same thing was with the findings of human skeleton in the caves in the karst region of Tuban in the north coast and Puger in the southern part of Java.

The sub-race of Papuid residing in the remote areas of Papua regionally experienced differentiation with the growth of local characteristics. Their body was short to tall, with brown to dark brown skin, quite thick body hair and beard, varied head shapes from round to oval, and their hair was dark brown to reddish brown, rarely black, and curly. Their forehead was narrow and high, round and flat, their face was narrowly oval to square, with a long convex nose, and average lips. The mixture of this sub-race with Melanesid was found in islands of New Britain, New Ireland, Admiralty, and Irian (Papua). In this context, Melanesid and Papuid were differentiated as separate sub-races but at the present time the general consensus is to consider both the same: Melanesia, sometimes even grouping them as a race.

There were still other population groups which belonged to Negrito race with small appearance, dark skin, curly hair, round eyes, big nose, full lips, and short bodies. The grouping is disputed. Some grouped Negritos as a population in Negrid society in Africa but others consider them as the descendants of a Paleolithic culture residing in the Southeast Asia (Thangaraj et al., 2003). Jacob saw it not as a separate race but as pigmization in one race, for example the Australomelanesid race or Mongolic. Their physical characteristics were the same as those of the initial race, but the body size was smaller, especially their

height which did not exceed 150 cm. The communities of Negrito who still are found are the Aetan in the Philippines, the inhabitants of Andaman islands, and the Semang in Malaysia (Brandt, 1965).

Early Modern Humans: The Melanesians' Distant Ancestors

To further understand the Melanesian population, we need to go back to the oldest *Homo sapiens* in Nusantara, their distant ancestors. Since their arrival in Nusantara, the people who are already like us bred from one generation to another till the end of Pleistocene and continued to the beginning of Holocene in the population which was considered as the Australomelanesid race. This race kept growing till inherited the population groups which one of them was the sub-race known as the Melanesia population right now. The origin of Early Modern Humans (EMH) was claimed to be from Africa. Their arrival according to the experts was the third migration (Out of Africa 3) after the first migration of *Homo erectus* which reached Indonesia in more than 1.5 ma and the second migration of *Homo erectus* which brought along the Acheulean culture reaching Indonesia and China around 0.8 ma (Foley and Lahr, 1997, Simanjuntak et al., 2010, Simanjuntak, 2013).

Early Modern Humans (EMH)

When EMH went out of Africa to Europe and Asia is still being debated. It has been suggested that the migration took place around 100,000 years ago. These migrants developed and changed the local archaic population in the new places (Cann et al., 1987). One of the branches of migration went to Indonesia then spread out further to West Melanesia and Australia. These first migrants were the ancestors of the indigenous population who now inhabit the region. Newer genetic research tends to show newer dates on the migration from Africa, even filled with the opinions on a single migration (single dispersal model) or more (multiple dispersal model). To the supporters of a multiple model (Rasmussen et al., 2011), there were at least two waves of migration. The first wave took place around 62,000-75,000 years ago towards the east up to Indonesia and then Australia. The second wave was around 25,000-38,000 years ago to Europe and Asia, then over to America.

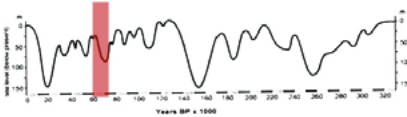
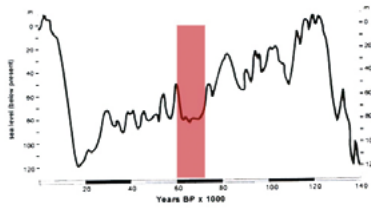
In the other camp, the supporters of a single migration see migration from Africa as an event when EMH dispersed to Europe and Asia and finally reached West Melanesia and Australia through Indonesia (HUGO Pan-Asian SNP Consortium, 2009). On this path to the east, when they were still in Asia, there was a branch going to East Asia. The genetic evidence showed >90% of East Asian genetic signs (haplotypes) are found in the Southeast

A map of the migration paths of Early Modern Humans (Out of Africa) according to Howells (1995).



Asian or Central South Asian population with the depreciation of haplotype diversity from south to north. Furthermore, there was also a 50% East Asian haplotype found in Southeast Asia and just 5% in the Central South Asia. This data supports the view that Southeast Asia was the main geographical source of the East Asian population.

Despite the controversy on the migration date above, based on the regional archeology data, early modern humans were thought to have entered Indonesia around 60,000 years ago (Simanjuntak, 2006, 2011). Their lives up to the end of Pleistocene were shaped by the fluctuating climate which drove the increase and decrease of sea level. Research done in the Huon Peninsula, PNG, showed that around 70,000-60,000 years ago a decrease in sea level occurred (Chappell and Shackleton, 1986). After that, the sea level kept increasing and decreasing up to the end of the Pleistocene. The lowest point reached happened around 18,000 years ago, at around 120 meters below present day sea levels. Since then, sea levels have increased steadily to reach the present level. The period of sea level decrease of around 70,000-60,000 years ago seemed to be the momentum for EMH's entering Indonesia. The decrease of sea level at that time (of around 80 m from the present sea level) did not create a land bridge connecting the Asian mainland and Indonesia (Hantoro, 1997). Any migration that might have occurred would have had to involve some sea crossing, and therefore, capability in seafaring technology would have been essential for the dispersion.

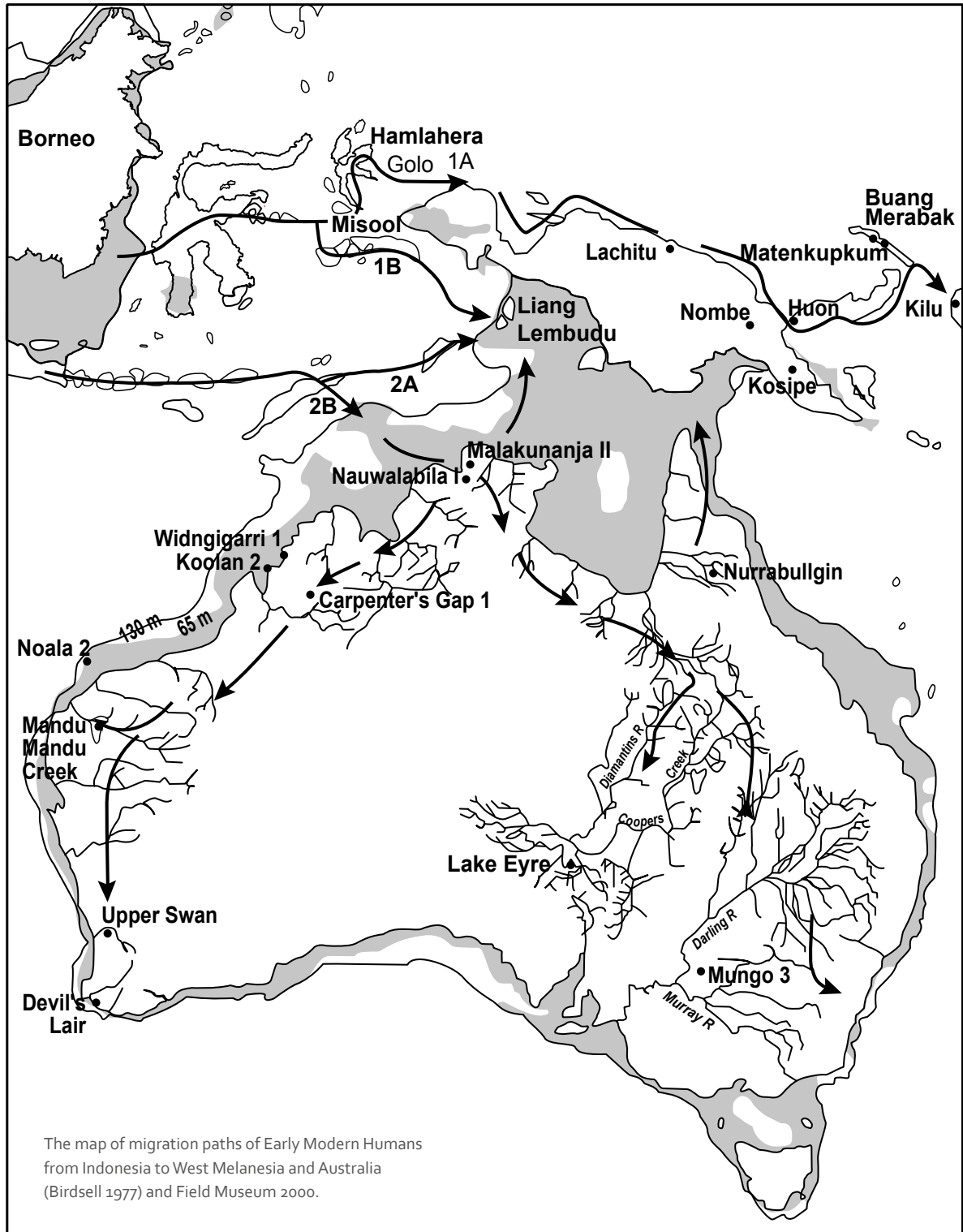


Fluctuation of sea level in 330 ka based on the data from Huon Peninsula (Chappel, 1982).

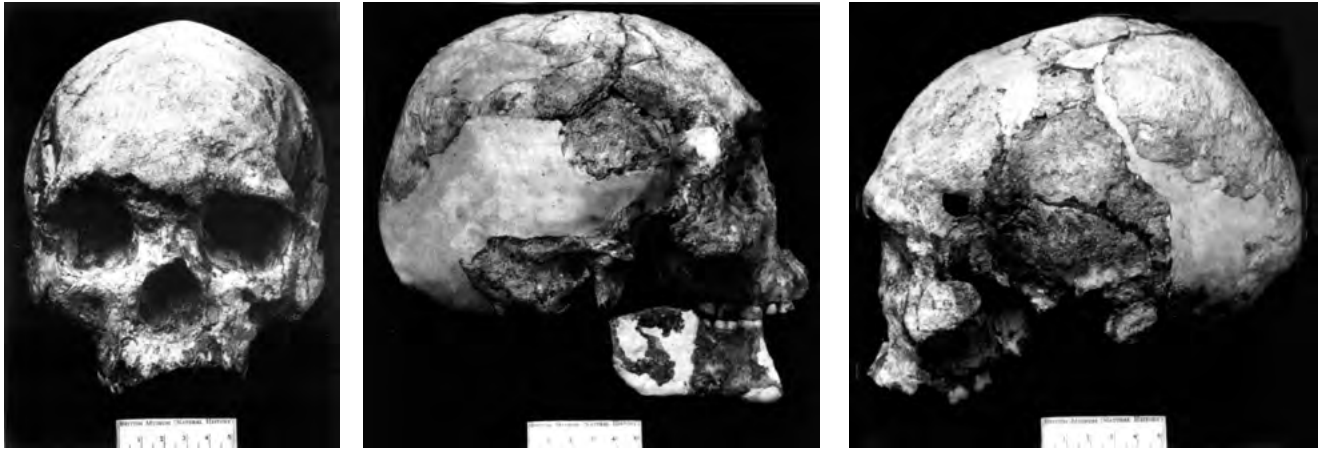
The dates of the existence of the oldest EMH in Indonesia has so far been limited to around 53,000 years ago from Song Terus and around 45,000 years ago from Tabuhan Cave. Both are located in the Punung region, East Java (Hameau, 2004, Sémah et al., 2003, Sémah et al., 2004). In Southeast Asia, human remains which are more or less contemporary have been found in Niah Cave, Sarawak, Malaysia dated at around 46,000 years ago (Barker et al., 2007). Older remains have been found but they still need observation and supporting data. One of these was the discovery of the third metatarsal of a human skeleton thought to be *Homo sapiens* from Callao Cave of North Luzon, the Phillipines with the date of around 67,000 years ago (Détroit et al., 2004, Dizon et al., 2002). Another finding came from Kota Tampan, Malaysia in a form of a group of artifacts under the ash layer of Mount Toba dated at around 70,000 years ago (Mijares et al., 2010).

Based on the finding above and strengthened by the findings in Australia, the dates of Punung may not be the oldest (Majid, 1990). It is believed that the EMH migration to Melanesia and Australia was from Indonesia (Bellwood, 2000). The spreading out from Nusantara to Australia and West Melanesia went along several routes (Birdsell, 1977). If we follow this view on the existence of EMH in Indonesia, it should be older or at least a little older than that in the Sahul region. However, it was most likely not like that. The evidence of the early existence of humans in Australia, which was supposed to be the last destination of migration happened to be much older, at 50,000-60,000 years ago (Habgood and Franklin, 2008, Roberts et al., 1990). The disparity with the Indonesian dates might have been because the research had not found the true oldest site or because any such sites had already been submerged under the sea.

Regarding the earliest migrations to West Melanesia, the oldest dates for sites of this region were similar to the oldest dates in Indonesia (40,000-30,000 years ago) (Gosden, 1995, Hope and Gosden, 1995, Loy et al., 1992). One of them was the site of a Fortification in Huon Peninsula, PNG dated at around 40,000 years ago with the finding of waisted axes in the volcanic ash layer. There are a good number of early sites that provide evidence of EMH settlement in West Melanesia. These include the Lachitu Site near the border of Indonesia at around 35,000 years ago, Kosipe and Nombé Niche at around 26,000 years ago in PNG (Gosden, 1995, Groube et al., 1986). In the Bismarck islands there was the Matenkupkum Site dated at around 33,000 years ago and Yombon at around 35,000 years ago, Buang Marabak at around 32,000 years ago, and Matembek at around 20,000 years



The map of migration paths of Early Modern Humans from Indonesia to West Melanesia and Australia (Birdsell 1977) and Field Museum 2000.



The skull of *Homo Wajakensis* seen from different angles (Storm, 1995).

ago. In the Solomon Islands there was the Kilu Site at around 28,000 years ago (Gosden, 1995, Hope and Gosden, 1995). The inhabitants of these sites were the ancestors of the indigenous population residing in Melanesia right now.

Findings

The evidence for the existence of EMH in Indonesia within a time frame of 45,000-12,000 years ago is mostly restricted to tools. Few sites with human remains have been discovered and so far are limited to that found in Wajak Village, Tulungagung and Leang Lembudu, Aru (Veth et al., 1998). Outside Indonesia but still within the Southeast Asia, human remains with Australid features have been found in Niah Cave, North Kalimantan in Malaysia and Tabon Cave in the Philippines. This finding was the basis of the opinion that the EMH inhabitants of Southeast Asia at around the end of Pleistocene belonged to the Australid Race (Bellwood, 2000). A finding with a contested date was *Homo Wajakensis* from Wajak Village, Tulungagung. Dubois estimated the age to be very old (a great Pleistocene age) on the basis of the jaw density of Wajak 2 which was 40% higher than the fresh bone (Storm et al., 2013). It has also been described as something contemporary or older than typical for the Niah and Tabon people (Jacob, 1976). Another date was younger, around 10,560 ± 75 years ago; 6,560 ± 140 years ago (Shutler, 1995). Recently, another, more likely date has been proposed which is between 37,000-28,000 years ago (Marliac and Simanjuntak, 1998, Storm et al., 2013). Regarding the taxonomic identification, it has been grouped as Proto-Australid, or alternatively as the mixture of Australid and Mongolic—the ancestors of Proto-Malay and Australomelanesoid (Jacob, 1967). Other human remains found came

The distribution map of Early Modern Humans in South East Asia.



from Liang Bua in Flores. However, the taxonomic identification is still contested as either a new species⁴⁸ or *Homo sapiens* (Morwood et al., 2004).

Evidence for inhabitation without human remains from 30,000 years ago have been found in dozens of sites, among which are Song Keplek and Braholo Cave in Mount Sewu region (Jacob et al., 2006); Liang Burung 2 and Leang Sakapao in Maros-Pangkep, South Sulawesi (Sémah et al., 2003, Sémah et al., 2004, Simanjuntak, 2002); Leang Sarru in Talaud Islands (Bulbeck et al., 2004, Glover, 1981); Lua Meko in Rote Island (Tanudirjo, 2005), Golo Cave in Maluku (Mahirta, 2009), and Toe Cave in Papua. The Toe Cave so far is the only finding of traces of early inhabitation (around 26,000 years ago) in Papua with remains of lithic and bone tools together with marsupial remains (*Dorcopsis muelleri*), types of wallaby, kangaroo, cuscus, birds, pigs, and mollusks. On the upper inhabited layer were earthenware fragments of Neolithic pottery (Bellwood, 1998). All of these sites show a wide EMH distribution which is not only limited to big islands but also found in small islands. One of the big islands which is questionable is Sumatra but through items found in the inhabiting layer aged around 15,000 years ago during intensive research being conducted in the Tiger Cave, OKU, South Sumatra, the gap in the data is starting to be filled (Pasveer, 2003).

The Tiger Cave, one of the pre-historic settlements with the finding of tens of human burial sites, and the remains of early human inhabitants.



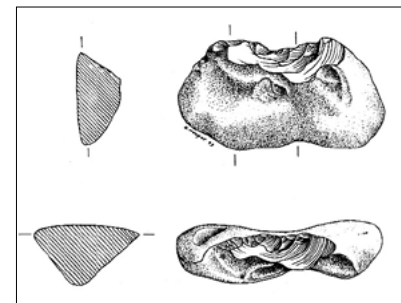
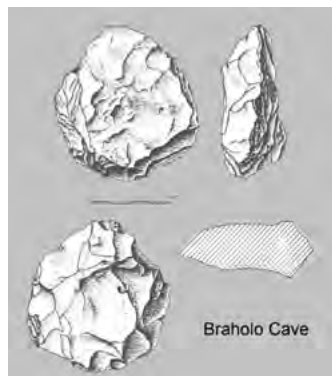
The sites above are not likely to be representative of the real number, considering that there are still many sites not yet researched. In the meantime, those that have already been or are being excavated are still limited to the inhabited layer of the Holocene period. We should also note that evidence also comes from outside Indonesia, the Niah Cave, Tabon Cave and Callao Cave, some sites in West Melanesia and dozens of sites in Australia (Simanjuntak and Fauzi, 2015). Unlike in Indonesia, these cave sites in Australia and West Melanesia predominantly are open natural sites. They include the site at Lake Mungo where a human skeleton of at least 45,000 years ago was found (Gorecki et al., 1991, Gosden, 1995, Smith and Sharp, 1993), and the sites at Maribyrnong river terrace, Keilor (36,000-25,000 years ago) and Greenough river, West Australia of around 37,000 years ago (Hiscock, 2008). All of these findings showed that EMH had been living at the same time in Southeast Asia, West Melanesia, and Australia since at least around 30 years ago.

Life Style and Behavior

Different from the life styles of *Homo erectus*, the predecessors, who led a solely outdoor existence, EMH started to settle down in caves and natural niches although still relying on their subsistence lifestyle of hunting and gathering. The caves were not just used for



Stone tools found in some sites in Indonesia from the end of the Pleistocene.



Artifacts from Song Terus.

← Stone artifacts from the Limestone of Braholo Cave.

shelter, but as also places to bury their dead, and sometimes as workshops. They went out from the cave hunting for animals and searching for tubers and grains.

We know from the animal remains found in the inhabited caves around the Mount Sewu region, that they hunted types of cow and buffalo (*bovidae*), deer (*cervidae*), pigs (*suidae*), and Cercopithecidae group such as Colobine monkeys (genus *Trachypithecus*). It was possible that elephants (*elephantidae*) and rhinos (*rhinocerotidae*) were also hunted animals as their bones were also found with the other animal remains. In the Niah Cave, North Kalimantan, Malaysia, it was slightly different. The dominant hunted animals in the beginning were wild boars (*Sus barbatus*) and rodents later changing to monkeys in the next inhabited period. Pangolin (*Manispalaeojavanica*), tapir, orangutan, deer, and buffalos (*bovidae*) were the hunted at the end of the inhabited Pleistocene (Bowdler, 1990, Jones, 1979). Among the coastline inhabitants, there was a tendency to rely on the sea biota. In the Golo Cave, Gebe Island (North Maluku) for example, only shellfish were found along the inhabited layer, with no land animals found except in the Holocene layer with remains of wallaby and cuscus (Bellwood, 2000). Interestingly, the research in Leang Sarru (Talaud Islands) did not find any land animal or fish remains, just shellfish (Bellwood, 1998).

EMH made tools by using available rocks in the neighborhood environment. Generally they were flake tools or tools made from stone flakes (lithic). In the beginning, the primary flakes released through the cutting of a raw material were used directly. Subsequently, there were efforts at retouching to try and achieve the shape and sharpness wanted. The flake tools were used for a variety of purposes such as to slice, cut, scratch, and perforate.

Apart from flake tools, sometimes primary stone tools were also produced, although this was very rare (Tanudirjo, 2001, 2005). The types of tools could differ in each region

Left: Some bone tools from Song Terus.

Right: The fireplace from Song Terus.



because of availability of stone and tradition of technology which were followed by the community making them. Chert stone, a fine-grained silica-rich sedimentary rock, became the most common choice because of its hardness and fragility making it was easy to work with. Where available in the surrounding environment, two other stones, Jasper and Chalcedony, were among those commonly used. The absence of silicified stone often led cave dwellers to use whatever stones were available in the surrounding environment. For example, in Braholo Cave, Mount Kidul, limestone was used because silicified stones were hard to get. In the Golo Cave, Maluku, tools were found made of volcanic and metamorphic stones available in the southern part of Gebe Island (Simanjuntak, 2002).

Around this time, organic materials such as bones and shells as simple tools had started although it was still rare. In Braholo Cave and Song Terus, bone tools were made by working on one of the material tips for a blade (*tajaman*) using a nonstandard technique (Bellwood, 1998).

There were some simple pointed tools made of a cercopithecoid fibula (a kind of monkey) and other mammal bones including ivory. In Golo Cave, Maluku, located in the coastline, in the layer aged 32,000-28,000 years ago, a tool made of sea mollusk shell was found, like *opercula* of *turbo marmaratus* (Ansyori, 2010). In the Jerimalai niche, in Timor Leste, a hook of bone was found, which so far was known as the oldest in the world of around 20,000 years ago (Szabó et al., 2007).

Fireplaces started to appear in this period. In Song Terus, Punung, an Indonesian-French team found the remains of two fireplaces in a layer with a date of between 39,000 and 20,000 years old with limestone rocks arranged in a circle (O'Connor, 2007). The effect of fire was clear on the surface of the limestone rocks and on other artifacts, bone fragments, and sediments around the fireplace. Another finding from Golo Cave, Maluku, was burned shells (Fauzi, 2008, Hameau, 2004) together with flaked stones in the layer

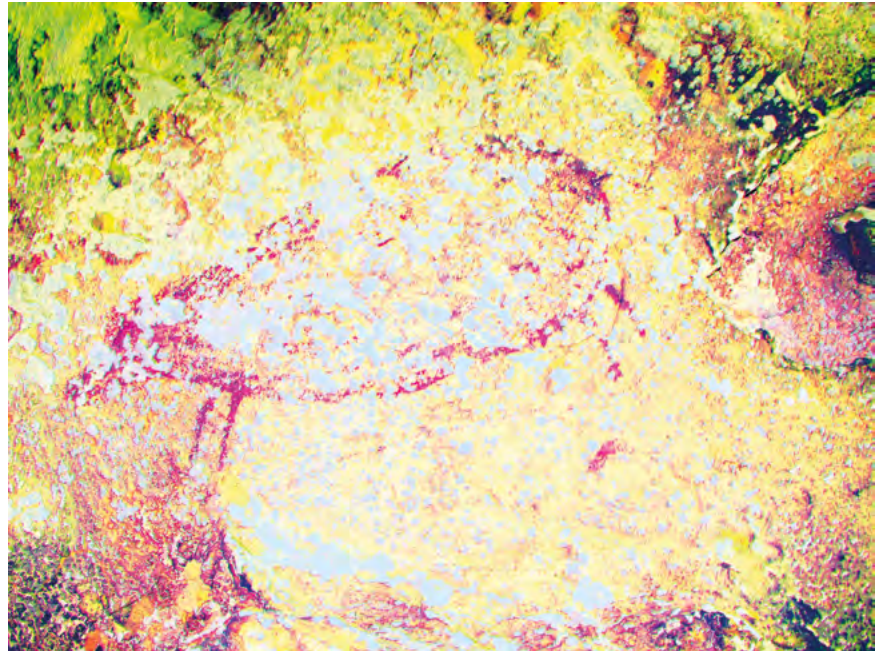
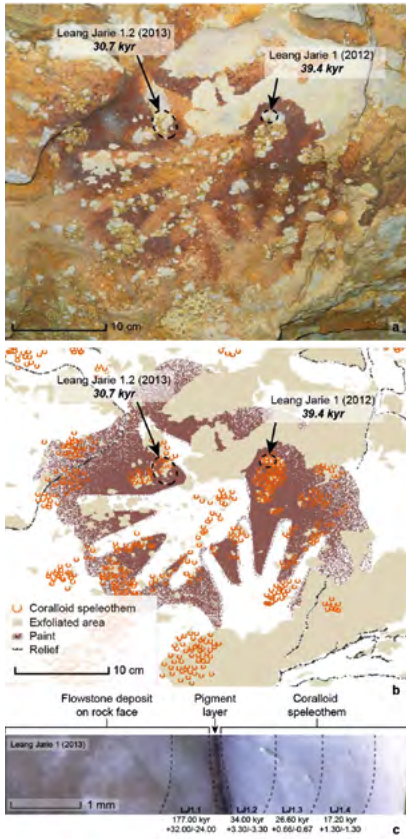
above the cave ground aged around 32,000 years ago (Bellwood et al., 1998). Another finding was a number of stones called coral cooking stones, which were blackened because of burning (Bellwood et al., 1998). In the upper layer two lines of coral forming a circle and a semi-circle were found. Inside one of the lines were small volcanic stones, shells and lithic artifacts (Szabó et al., 2007). Outside Indonesia, fireplace remains were also found in Niah Cave, Sarawak, Malaysia (Bellwood et al., 1998).

Recently, evidence about very early art was discovered. The karst region of Maros, South Sulawesi, is a very rich location for cave sites with pre-historic paintings. At Liang Timpuseng, a rock painting was found in the form of a very old finger stamp aged around 39,900 years ago. It was the oldest finger stamp painting known in the world. Close to the finger stamp was a painting of a pig-deer dated as a bit younger of 35,400 years ago (Barker et al., 2007). The finding was stunning because of its extreme age and proved that Indonesian EMH, the ancestors of the Melanesians, in fact had local genius, evolved thought and an aesthetic sense which has not been observed EMH in the other parts of the world. The only work which is comparable to the painting in Liang Timpuseng can be found in El Castillo Cave, North Spain in a form of disc motive with the date of around 40,800 years ago (Aubert et al., 2014). The date of the paintings in some other caves in Maros showed an old age between 40,700-17,770 years. These findings showed the distant ancestors of Melanesian had at a very early date produced art works that only appeared much later in other parts of the world, and which deserve a place in the history of world art.

There is also evidence of the development of human cognition in EMH. They had started to think of “who they were and where they wanted to go”, the embryo of the concept of belief which would emerge fully in the early Holocene.

The manifestation of that thought started to appear through the intentional arrangement of bodies found in burial sites.

In Leang Lemdubu a half complete skeleton of a woman with the height of around 166 cm and age of around 30 years old was found and dated at 30,000 years ago. A second skeleton was more complete, of a woman of around 25 years old dated at 17,000 years ago buried in crouched position and covered with a pile of stones (Pike et al., 2012). What such an intentional treatment signified has not yet been satisfactorily explained (Bulbeck, 2007). Such burial practices have also been found in the tombs in Niah Cave, Sarawak, Malaysia dated 44,000 years ago. The findings of skeletons consciously arranged in different positions are considered to be the early manifestation of the appearance of the conception of belief in life after death and which further developed during the Holocene.



Above: Early hand stencil paintings from caves in Leang and Maros, South Sulawesi.

Top right: Leang Timpuseng, Maros, South Sulawesi.

Bottom right: The painting of a pig-deer in Leang Timpuseng, Maros, South Sulawesi.

Important sites at the end of the Pleistocene-Holocene period related to different groups in Indonesia and surrounding areas.

Site	Oldest Date	Human Remains and Affiliates	Cultural Heritage Material	Reference
Song Terus, Pacitan	c. 53,000 BP	-	Lithic artifact and bone, fireplace and animal remains	(Hameau, 2004, Sémah et al., 2004)
Tabuhan Cave, Pacitan	c. 45,000 BP	-	Lithic artifact and animal remains	(Sémah et al., 2003)
Braholo Cave, Wonosari	c. 34,000 BP	Australo-melanesid	Lithic artifact and bone, and animal remain	(Simanjuntak, 2002)
Liang Burung 2, Maros	c. 31,000 BP	-	Lithic artifact and bone, and animal remains	(Glover, 1981)
Liang Sarru, Talaud	c. 30,000 BP	-	Lithic artifact and animal remains	(Tanudirjo, 2005)
Liang Sakapao 1, Maros	c. 30,000 BP	-	Lithic artifact and animal remains	(Bulbeck et al., 2004)
Golo Cave, Maluku	c. 33,000 BP	-	Lithic artifact, fireplace and animal remains	(Bellwood et al., 1998)
Wajak, Tulungagung	37,000 – 28,000 BP?	Proto-Australid		Dubois ???
Australid & Mongolic	Lithic artifact flake tools, and animal remains			(Storm et al., 2013)
Lawa Cave, Ponorogo	-	Melanesid – Australid	Lithic artifact and bone, fireplace, animal remains and human remains	(Jacob, 1967)
Petpuruh, Situbondo	-	Papua – Australid	Lithic artifact, animal remains, and human remains	(Heekeren, 1972)
Marjan, Jember	-	Papumelanesid	Lithic artifact, animal remains, and human remains	(Heekeren, 1972)
Bojonogero Caves	-	Papumelanesid	Lithic artifact, animal remains, and human remain	(Heekeren, 1972)
Pager Caves	-	Malay/ Australomelanesid	Lithic artifact, animal remains, and human remains	(Heekeren, 1972)
Liang Toge, Flores	4,000 – 3,000 BP	Australomelanesid	Lithic artifact, animal remains, and human remains	(Jacob, 1967)
Gilimanuk, Bali	Ca. 2,000 BP	Mongolic	Shell artifact, pottery, animal remains, and human remains	(Soejono, 1984)
Melolo, Sumba	-	Paleomelanesia/ Mongolic	Lithic artifact, pottery, animal remains, and human remain	(Soejono, 1984)
Lewoleha, Lombok	-	Negrito Malay/Veddid	Lithic artifact, pottery, animal remains, and human remains	(Bellwood, 2000)
Bukit Kerang	Ca. 10,000 BP	Melanesid	Lithic artifact and animal remains	(Heekeren, 1972)
Song Keplek, Pacitan	c. 24,000 BP	Australomelanesid	Lithic artifact and animal remains	(Simanjuntak, 2002)
Lua Meko, Rote	c. 24,000 BP	-	Lithic artifact and animal remains	(Mahirta, 2009)
Liang Bua, Flores	c. 18,000 BP	EMH/ new species?	Lithic artifact, animal remains, and human remain	(Jacob et al., 2006, Morwood et al., 2004)
Liang Lemdubu, Aru Islands	c. 28,000 BP	EMH	Lithic artifact, animal remains, and human remains	(Bulbeck, 2007, Veth et al., 1998)
Toe Cave, Kepala Burung	c. 26,000 BP	-	Lithic artifact and animal remains	(Pasveer, 2003)
Niah, Malaysia	46,000 BP	Australid	Lithic artifact and animal remains	(Barker et al., 2007, Bellwood, 2000)
Tabon, Philippines	47,000 BP	Australid	Lithic artifact and animal remains	(Dizon et al., 2002)
Callao, Philippines	67,000 BP	EMH	Animal remains	(Mijares et al., 2010)
Cha Cave, Malaysia	10,000 – 2,000 BP	Melanesid	Artifact and animal remains	(Taha, 1985)
Kepah Cave, Malaysia	-	Australomelanesid & Mongolic	Artifact and animal remains	(Jacob, 1967)

The End of the Ice Age and the Ancestors of Near Melanesia

The end of the ice age which occurred at the end of Pleistocene and the beginning of Holocene around 11,800 years ago was at the heart of changes with complex impacts (Barker et al., 2002, Harrison, 1957).

Climate change, which is influenced by the periodical change of Earth's position in relation to the Sun caused a change in the total energy from the Sun and its distribution on the Earth (De Lumley, 1976). In the glacial period, freezing temperatures, locked huge quantities of water as ice in the polar regions and the mountains, decreasing content of the sea water, which led to a drop in the level of the sea. In interglacial periods, there are warmer temperatures and polar and glacial ice melts leading to a rise in the sea level.

One of the most fundamental impacts of the sea level increase was changes to the Indonesian archipelago's paleogeography. During the glacial periods, the land areas merged into three large regions: Sunda Land, Wallacea and Sahul Land. With the rise in temperatures, much of these were inundated by the rising sea, leaving the high ground as islands. Sunda Land became the islands of Kalimantan, Sumatra and Java. Sahul Land divided into Australia, Papua, Aru, and other islands.

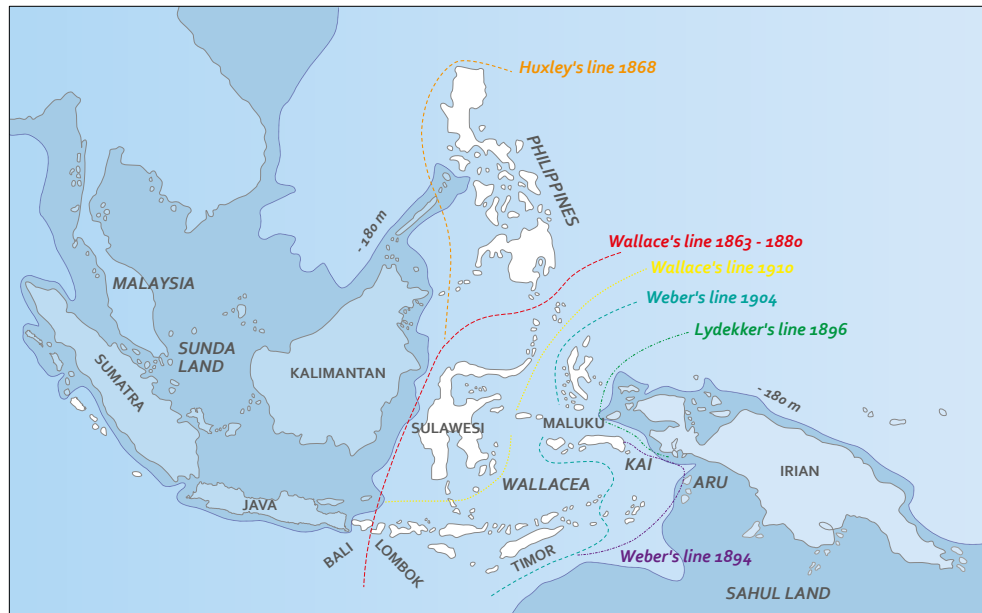
In addition to geographical changes driven by climate change tectonic events led to uplift and sinking of parts of the earth's surface contributing to the present shape of the archipelago (Hays et al., 1976, Sémah et al., 1990). The increase of sea level height was not the same throughout the world, because it was influenced by climate condition, its proximity to the cross-line of the Sun and other factors. However, in a study of the Huon Peninsula, PNG, it has been suggested that a sea level of around 120 meters beneath the present sea level would be typical of the entire Indonesian-Oceania region (Chappell and Shackleton, 1986).

The rise of the sea level also led to changes in ecosystems. Coastal areas and low lying land which were inundated by rising seas caused a displacement of the coast line landward so that the ecosystems formerly found in the hills changed into beach ecosystems.

Furthermore, the forming of the islands also extended the length of the coastline, which tended to enrich environmental resources. These changes to climate and the natural environment brought about changes to the inhabitants and their culture. The drastic sea level increase forced the Neolithic peoples and also animals to migrate inland and these migrations continued to all corners of the archipelago (Sartono, 1991).

Far from being a disaster that limited populations, the sea level rise led to increases in populations and stimulated significant cultural development (Simanjuntak, 2015). This

Floral and faunal boundary lines in Indonesia (Geotge, 1964 in Whitmore, 1981).



can be explained as due to climatic factors driving increasing biodiversity which was more stable than in the previous period.

Another impact concerned the life of animals. The amelioration of climate and more stable temperature (getting warmer and more humid), had expanded the tropical rain forest and decreased the area of savannah. New environment with many different varieties of landscapes had resulted in growing numbers of different kinds of plants. Since the forest areas were getting bigger, the population of big animals was declined. Nevertheless, the population of arboreal animals was increased. Medway (1977) recorded that around 200 species of *Pleistocene* mega-fauna in the world were extinct due to climate changes, 11 species were from South East Asia, such as *Elephas maximus*, *Bubalus sp.*, *Cervus eldi*, *Rhinoceros sondaicus*, *Manis palaeojavanica*, and *Tapirus indicus* (Bellwood, 2000).

The amelioration of climate and diversities of flora and fauna following the Ice Age was a momentum for the beginning of culture change. Since then, in 12 thousand years up to present times, many rapid changes has happened, started from Pre-Neolithic to Neolithic in the prehistoric Age, continuing to Paleometal Age in Proto-historic periods, until the infiltration of the influences of Hinduism-Buddhism, Islam, Colonial in Historic Age, and in the independent era up to present time. Compared to previous period, millions of years of the Pleistocene, the development of Paleolithic culture had been gradual and

monotonous. There were some determining factors of changes: firstly, the availability of environmental resources that encourages the development of local cultures by making use of resources available to create the diversities of cultures and life-styles.

Secondly, the ability to respond to challenges concerning the connections across islands by developing marine technology made room for interactions across populations and cultures. The development of marine technology was probably initiated by a try-out cruise using a wooden beam or a simple raft. A success of the first cruise had motivated further development and then later, a simple sailing boat was made. The remains of sailing gears of this Era are not easy to find. Nevertheless, it is presumably that the sailing boats were made of wooden beams, knotted barks or reeds, perforated timber, or rafts made of mangrove or bamboo (Birdsell, 1977). The latest should be noted well because of their availability in tropical environments. Mangrove and bamboo are durable and easily afloat. Besides that, Mangrove and bamboo are not easily decaying and they are easily knotted.

Population increases themselves can be considered as a third cause. Climatic amelioration, diversification of animals and plants, and improvements in the cognitive capacities of EMH can be seen as conditions that supported the demographic growth. The increase population brought with it greater needs and along with efforts to survive, drove a diversification of the behaviors and the tools for making better use of the available natural resources. Population increases drove cultural development by responding to the challenge to fulfill the increased needs for survival.

The Australomelanesid People Inhabiting the Indonesian Archipelago and Melanesia

Changes in the map of the early inhabitants of the region around the end of Ice Age created the question of who continued to inhabit the Indonesian Archipelago. The short answer was that it was the descendants of the previous EMH inhabitants. Indeed, the population increase would have been behind the dispersals to new corners of the available land. However, the archipelago had not been totally submerged. The transformation of Sunda Land and Sahul Land into an archipelago did not discount the possibility that those migrating people would have been able to cross to other islands and beyond. If the EMH did have that capability, then it was they who were the ancestors of the resulting populations. But this in itself does not rule out the possibility of newcomers from outside the archipelago (Birdsell, 1977). Through earlier evolutionary processes, the inhabitants in the early Holocene showed physical characteristics that were typically found in the

population inhabiting the other Southeast Asian regions, also including Melanesia, Australia, and Tasmania. On the grounds of this similarity and in order to differentiate them from other populations, they have been grouped as the Australomelanesid Race, the two parts of the name indicating both Australia and Melanesia. This race were the ancestors of the indigenous population living in Indonesia, Melanesia, and Australia right now. The Australomenasid Race can therefore be considered to be the close ancestors of the present day Melanesian population. These ancestors of the Melanesians inhabited two regions, the Indonesian region in the west and the Melanesian region in the east.

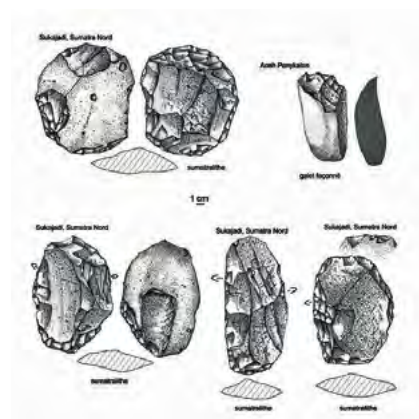
The ancestral Melanesia population in the Indonesian region dispersed widely to other islands building and enriching the culture of the ancestral EMH. The same was true with the population inhabiting Melanesia, as they spread out to various islands within the region and even further to the east to the neighboring islands in the region of Polynesia. While the movement of peoples eastward is uncontested, the question of whether there was any westward movement into the Indonesian region remains. There is evidence suggesting that this might be possible.

Based on the existence of agricultural center which developed in Kuk Swamp, PNG, at around 10,000 years ago, such a migration seems very possible, at least from the cultural center of Kuk Swamp entering Papua and this does not forego the possibility of migrations continuing as far as Maluku and East Nusa Tenggara (Jacob, 2002). On that point, so far there have been some early indications supporting the idea. There is also evidence from linguistics. The non-Austronesian languages which belong to the Trans New Papuan phylum are spoken by certain populations in Nusa Tenggara and Maluku (Denham et al., 2003). In addition, a human skeleton with Melanesian characteristics was found in the Tanjung Pinang site with a relatively young date of 2,000 years ago (Bellwood, 2000, Wurm, 1977), although this does not rule out the possibility of migration from the west. These findings call for further research to establish with greater certainty if there were indeed movements westward. Although the dominant movement appears at present to have been from west to east Melanesia, the possibility of movement in the opposite direction deserves consideration.

Life Style and Behavior

The ancestors of the Melanesians found in Indonesia are known to have inhabited caves or natural niches or recesses. Such cave inhabitance is noteworthy.

Left: Binjai Shell Hill.
 Right: Sumatran axe (Sumatralith),
 typical of the Hoabinhian Culture,
 found in shell sites on the eastern
 coast of North Sumatra—Aceh.



EMH pioneered the use of caves after their arrival in the archipelago in the second half of the Upper Pleistocene. Since then, it became more intensive and spread to new karst areas. The intensification and extensification of cave dwelling so that the period of their life could be considered the peak of cave dwelling in the history of the dawn of civilization. In this period, groups of cave inhabiting individuals spread widely across the Indonesian archipelago. All of the known inhabited cave sites would make a long list. Examples include caves in the karst region of Padang Bindu in OKU region (Bellwood, 1998, Tanudirjo, 2001), in the Semanding Mountains in Tuban, Bojonegoro, Ponorogo, Tulungagung, and Besuki in the eastern part of Java, Bangko and Kerinci in Jambi (Heekeren, 1972, Marliac and Simanjuntak, 1998, Soejono, 1984), Maros-Pangkep in South Sulawesi, Flores (Bronson and Asmar, 1975), East Timor (Jacob, 1967, Verhoeven, 1953), Meratus Mountains and Berau Bay in Kalimantan (Glover, 1972), Aru Islands (Widiyanto et al., 1997), Halmahera (Spriggs, 1998), and Skoumabo in Papua (Bellwood, 1998).

The wider the karst region was, the greater the potential for having more caves, and the bigger the inhabiting community was. The karst region of Mount Sewu in the southern mountains of Java with 60 odd sites of inhabited cave sites is an example of an inhabited center of Australomelanesians in the early Holocene. Besides human remains in burial sites and elsewhere, the caves yielded a wealth of findings of various things including the remains of hunted animals of various species, lithic tools and charred remains related to activities of the inhabitants, very outstanding bone tools and types of jewelry of various materials. It was very likely that the caves were inhabited by groups with family ties. These groups interacted with other cave inhabiting groups within the same karst environment, so that they built a larger community with the same culture and behavior.

Left: Obsidian flakes from Silabe Cave, Padang Bindu, OKU, South Sumatra.

Right: The Site of Passo Tondano, North Sulawesi.



There are number of factors that would have made caves attractive to them as places to inhabit. Caves give protection from the elements in the open air, from rain, storms, and the heat of the sun. Where the cave entrance was small, it aided security from intrusions by wild animals. Caves were used for a range of purposes, as places to produce tools, to build a fireplace for processing food stuffs, and as a burial site for group members who had died. The evidence for these functions is in the various kinds of artefacts and biofacts (ecofacts) unearthed at different inhabited layers inside the cave.

When caves were not available, they lived in the open air and built simple pile houses. This can be seen in the shell hills (*kijokenmoddinger*) spread out 130 km along the eastern coast of North Sumatra and Aceh (between Percut and Lhok Sumawe). The original location was on the coast but the site is now 15 kilometers inland (Simanjuntak, 1998). Coastal dwellings such as this was part of the Hoabinhian Culture which developed widely in Southeast Asia around 14,000-3,000 years ago (McKinnon, 1988). The members were of the Australomelanesid Race, the continued descendants of EMH inhabiting Asia and Australia (Gorman, 1971).

Hoabinhian spread to reach the western part of Burma and the northern part of South China, possibly as far as Taiwan. In the Hoabinhian Culture, there were two kinds of exploitation of inhabitation, living in open coastal areas with a subsistence lifestyle making use of the sea, and cave or niche dwelling with a subsistence lifestyle of hunting in remote interior areas. This dual lifestyle pattern is found in North Sumatra where there are coast inhabiting as well as the indication of remote inhabiting from the finding of some Sumatralith in Kampret Cave, Leuser mountains dozens of years ago. The existence of Hoabinhian sites in such areas showed that this typical cultural distribution spread to southern areas, crossing Malaka Bay up to the coast of Sumatra.

The Hoabinhin Culture developed in North Sumatra—Aceh around 10,000-3,000 years ago characterized by the inhabiting of pile houses along the coast, and by making use of sea shells as their main staple food. The disposal of sea shells around the inhabited area sooner or later piled up so as to form a shell hill. The existence of human beings with lithic artifacts and eco-facts of other animal remains inside the shell hill provide convincing evidence of their life style. Another typical aspect of this culture was the stone tools which were flaked only on one face (monofacial) with retouched sides. Because they were first found in this region, they were called "Sumatraliths" (Matsumura et al., 2011). Shells were not only found as food remains disposed of in piles but also in burial sites. A human skeleton of one of the inhabitants of Australomelanesid Race was found in the shell hill at Stabat, North Sumatra with an estimated age of 5,000-7,000 years ago (Heekeren, 1972, Soejono, 1984).

The sites with sea shells in Sumatra are very important as evidence that the Australomelanesian population of around the end of Ice Age was very likely to have been not just moving outside the archipelago, but include people who had arrived in the archipelago from Southeast Asia. Another open air inhabited site is in Paso, at the edge of Lake Tondano, North Sulawesi. It is characterized by shell exploitation and industry for making lithic tools made of obsidian and other stones. Based on radiometric dating, the site was already inhabited at least $7,530 \pm 450$ years ago (Budhisampoerno, 1985). No remains of any inhabitants have been found at this site, but based on its ancient dating the inhabitants were very likely to have been Australomelanesid.

In terms of subsistence life styles, while the coastal inhabitants made use more of the sea biota without ignoring the land animals and plants, the cave inhabitants made more use of various kinds of animals living around them. Various kinds of pigs (*Suidae*), and deer (*Cervidae*) were the most hunted species, while other animals hunted according to their availability in the neighborhood. In the region of Mount Sewu monkeys (*cercopithecidae*) became the dominant hunted animals. In Song Keplek, for example, the remains of these arboreal animals were dominant, especially in the inhabited layer aged between 8,000-4,000 years ago (Bellwood, 1979). This finding indicated that monkeys were one of the main foods, in an environment which was rich with trees and fruits at that time. Monkey bones were also found used as tools, presumably because of availability and them being relatively easy to work. Meanwhile, in the Cha Cave in Malaysia, pigs (*Sus scrofa* and *Sus barbatus*) were the main hunted animals among all along the cave inhabitants, the rest are deer, bear, monkey, rhino, and cow (Simanjuntak, 2002).



Braholo Cave, Mount Kidul. The site had a continuous fireplace layer of 3 meters representing 5,000 years of use 9,000-4,000 years ago.

Evidence of sea shells has also been found at sites which are some distance from the sea. In Braholo Cave and Song Keplek, Mount Sewu, for example, which is 17 km from the coast line of the Indian Ocean, sea shells were found on top of the freshwater and land mollusks shells. One explanation for this is that the cave inhabitants themselves journeyed to the sea to collect them, and the other is they obtained them through barter with the coast inhabiting community. Evidence from other cave sites along the southern coast make the second possibility the more likely. The kinds of sea mollusks frequently seen were *Pelecypoda* of the types of *Cardidae*, *Veneridae*, and *Arcidae* as well as *Gastropoda* of the types of *Cypraeidae*, *Neritidae*, and *Muricidae* (Taha, 1985).

Their subsistence lifestyle which included foraging and gathering was always coupled with hunting. The cave inhabitants made use of the tubers and the grains which were found in the surrounding area as sources of food. The finding in Braholo Cave and Song Keplek showed that nutsand grains such as almond (*Canarium sp.*), candlenut (*Alleurites moluccan*), and tropical almond (*Terminalia catoppa*) were mostly used in particular around 6,000 years ago. The same kinds of nutswere found in the upper layer in Song Gentong,

Tulungagung. Evidence of this early use of nuts and grains has also been found outside Indonesia, in Spirit Cave (Thailand). A variety of nuts, seeds, grains, gourds and vegetables were found there: almonds (*Prunus*, catappa (*Terminalia*), areca nut (*Areca*), beans (*Vicia*, *Pisum*, *Trape*, *Madhuca*), calabash (*Lagenaria*), pepper (*Piper*), canarium nut (*Canarium*), candlenut (*Aleurites*), and cucumber (*Cucumis*) of the border layer of Pleistocene-Holocene (Simanjuntak, 2002).

At a site in Kuk Swamp, in the highlands in Papua New Guinea, swamp drying ditches for farming were found. These were among the oldest in the world. It is thought that this development had been going on from at least since 10,000 years ago with three stages of development: (1) exploitation and cultivation at the edge of the wetlands occurring around 10,220-9,910 years ago; (2) mounding cultivation that took place around 6,950-6,440 years ago; and (3) ditched cultivation of around 4,350-3,980 years ago. The main plant cultivated from the beginning of Holocene was Caladium (*Colocasia esculenta*), while banana (*Musa spp.*) started to be cultivated intensively from 6,950-6,440 years ago.

Grain findings are generally still rare and usually loose finds in various sites in the archipelago suggest these were subsidiary activities to the major subsistence activity of hunting. In this case, it is worth mentioning the report about the flake-blade tools with edge gloss found in cave sites in Timor and South Sulawesi (Denham et al., 2003) which are thought to have been used for cutting grasses, including cereals and grains such as barley or millet (Glover, 1981). Such a claim needs to be further investigated to find out the types of cereals and their dating. There is not yet widespread evidence for the widespread domestication of animals during this period. Research findings are still rare. There is evidence of pig domestication in Papua New Guinea dated at around 6,000-5,000 years ago (Bellwood, 1979), but this is not enough to assume it occurred also in other regions. However, agricultural activity had developed well in this region and pigs were already being domesticated (Golson and Hughes, 1980).

Fireplace activities were more intensive among the cave inhabitants. Often, the fireplace remains formed a thick layer showing their sustained use by the inhabitants. In Braholo Cave, Mount Kidul, for example, there was a continuous layer 3 cm thick representing a period of use of 5,000 years between 9,000-4,000 years ago. In Song Keplek, the fireplace layers moved around in the western part of the cave, but they were not as thick as those in Braholo Cave. Often there were tools and animal bones inside the fireplace, which were partly burned, perhaps by accident because they had been too close to the fire. Signs of utilization can be seen in certain tools made of bones; where traces of burning at the sharp

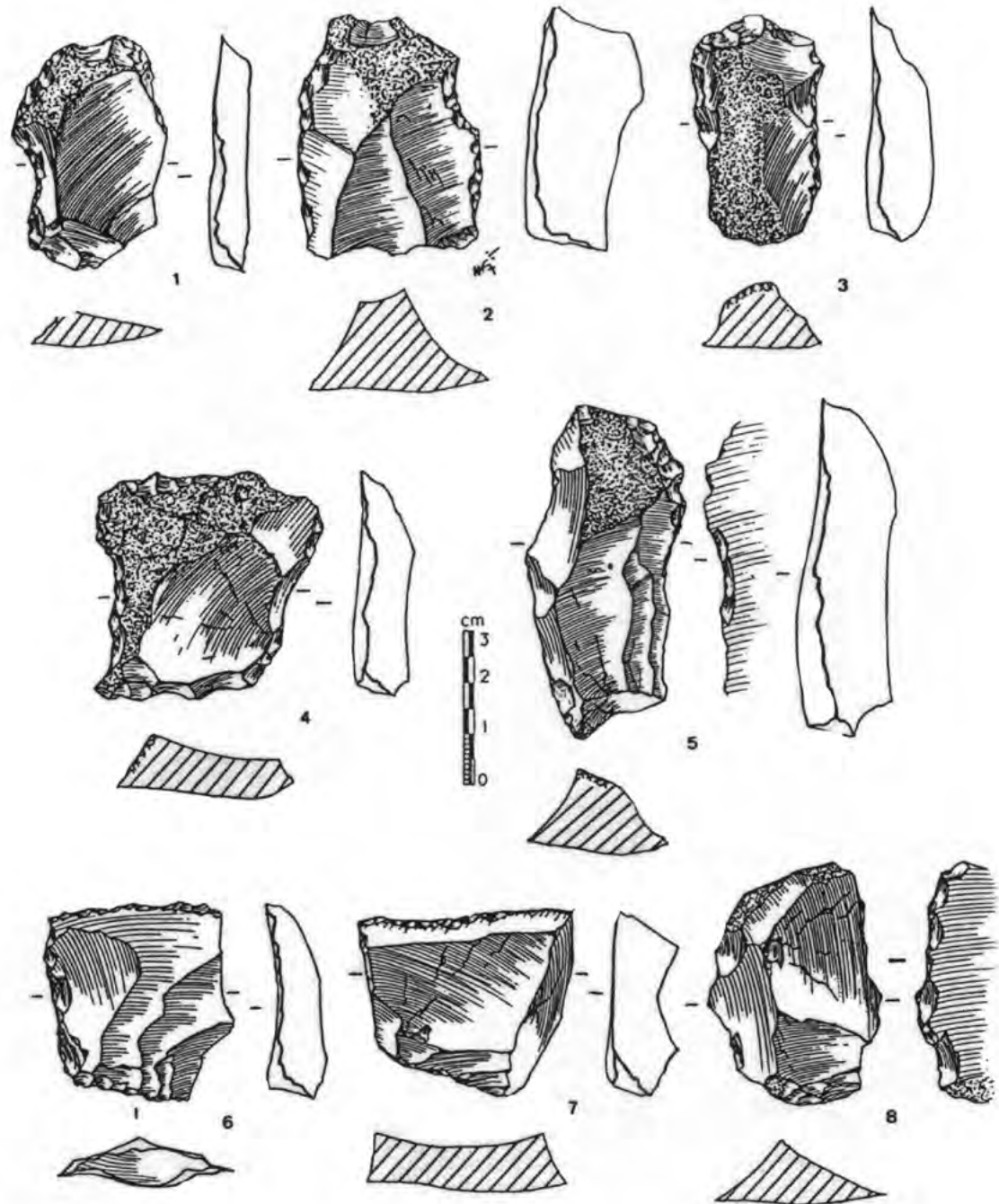
edges are obvious. Apparently, the active part of the tools had been put close to the fire to harden them so that the tools would be more durable and effective.

During this era, technology became more advanced. Evidence can be observed in the diversity of materials used to produce a variety of tools. Besides stone, organic materials were also utilized. The tools using lithic technology were still dominant and increasingly used. Generally, the process of making stone tools took place in the caves as supported by the findings of flakes, trimmer tools, and stone tools. As their predecessors had done, silicified rock was mostly used to produce the tools, because it was flexible yet solid and its fragments tended to be sharp so that they could immediately be used for various purposes. But, when circumstances did not allow the use of silicified rock, other kinds of stone were also used. In the Eastern part of Mount Sewu, chert stones were used to produce tools as they were abundant and easily found.

The advancement of flaking methods had produced a variety of flake tools, such as planes for shaving, points (tapering), drills or borers, notched scrapers, denticulate (notched) saws, arrowheads, and blades. Various types of planes were the most common flake stone found at every archaeological site. At Song Keplek, there were 13 types of planes found with a higher percentage of plane types than other kinds of flake tools (Simanjuntak, 2002). In this Era, local tools emerged as the result of the development of basic flake-tool techniques. There were typical convex-bottom arrowheads in the eastern part of Java, and there were also concave-base arrowheads with serrated sides (Maros Points) in Maros, Pangkep, South Sulawesi (Forestier, 1999). In East Timor, a typical pointed tool with a wooden handle was developed (Heekeren, 1972), while along the Nulbaki River in West Timor, long denticulate scrapers with rows of notches similar to fish scales were dominant. These typical local tools are evidence of the advancement of cultural advancement in the Indonesian archipelago during the Australomelanesian occupation.

Specifically, the information about the existence of flake tools made of obsidian in some parts of the regions, such as South Sulawesi (Glover, 1973), Bangko and Kerinci (Heekeren, 1972), Flores (Bronson and Asmar, 1975), and also East Timor (Heekeren, 1955-1957) should be added. These tiny tools (some could only have 0.5 centimeters long or even less) are assumed to have had a function similar to what we now know as jack-planes, a tool with a wooden stick handle used for cutting or slicing. Other lithic tools found included pestles and mortars which usually contained traces of some red substance or hematite on their surface. Probably, these tiny tools were also used to make hematite powder, a colored substance which was poured over a dead body as part of ancient funeral rituals performed

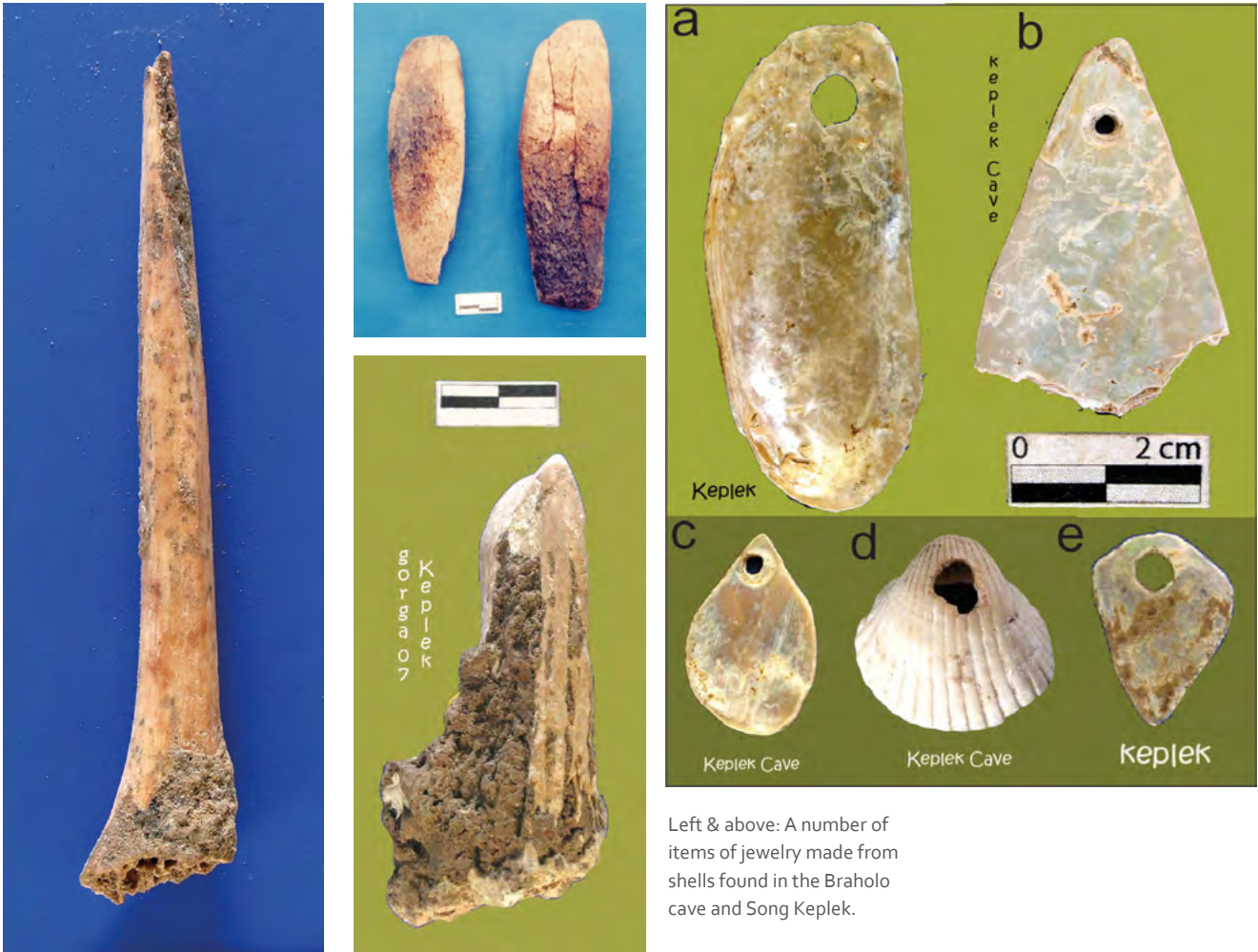
Flake tools from Song keplek, Mount Sewu in Punung, Pacitan.



at that time. It is thought that the pestles and mortars were also used to crush grains, nuts and seeds.

Some tools were made of organic materials, such as bones, animal horn and clamshells (Glover, 1972). Wood and bamboo would also likely have been used since they were abundant and easily found in the inhabitants' surroundings. However, since wood and bamboo decay easily, they are not preserved by nature. Similar to lithic tools, tools made of bones were an innovation in EMH culture; the manufacturing process was well thought out and planned in advance. The center of the industry of tools made of bones was found in an area extending from Gunung Kidul to the Easternmost tip of Java Island. The first findings were in Lawa Cave, Sampung, Ponorogo, and it is known as the "Sampung bone-tool industry". In the cave sites around this area, tools made of bones were more prevalent than lithic tools. Trowels, or spatulas (tools with a flat blade used for spreading substances) and awls and gimlets (tools with a sharp pointed end) were the dominant types of the tools. Besides trowels and awls, there are also different kinds of needles, scrapers, and other tools. In addition to tools made of bones, there were also tools made of antlers and clamshells although they are quite rare. In the Mount Sewu area, clamshells were used not only for making planes, but also for making needles, scrapers and spatulas. In this area, clamshells, bones, teeth, and antlers were also used for jewelry.

The EMH achievements in rock art continued and saw significant development in techniques and variations. Besides rock painting, there was also an emerging culture of rock carving and rock engraving, either on the walls and ceilings of the caves or on cliffs in hills. These cultural practices spread far throughout the eastern part of Indonesia including Papua, Maluku, South East Sulawesi, South Sulawesi, and Flores. More recently, these practices were also observed in Kalimantan, Java, and Sumatra. Researchers have categorized the paintings mentioned above as part of the culture of Austronesia (Heekeren, 1972), but, they had been widely found in cave dwellings since the Holocene era. From the recorded dates of the cave paintings in a regional context, it is possible that these paintings were originally made by the ancestors of the Melanesians. However, some of the paintings could have been produced by the Austronesians who arrived later. Besides findings in Indonesia, these kinds of paintings have also been found in Australia and the Pacific, the Philippines and in Thailand. There is considerable variation in the design of the paintings but it is possible to divide them into two types: figurative designs depicting real things in nature, and non-figurative designs with symbols which are difficult to interpret.



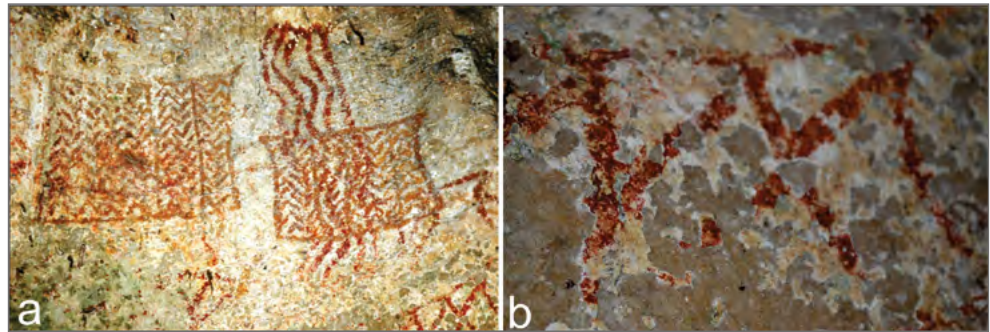
Above: Tools made from bone and antler horn from Braholo cave and Song Keplek.

Left & above: A number of items of jewelry made from shells found in the Braholo cave and Song Keplek.

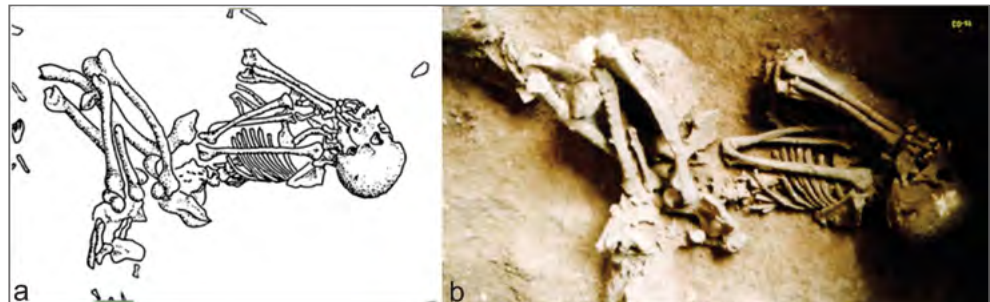
Art in the form of scraping or engraving and carving of blocks of stone or coral is rare. However, there are quite a number of such objects found in Tutari Hills, Sentani, and Papua. On the surface of blocks of gabbro (a dark, coarse-grained plutonic rock of crystalline texture, consisting mainly of pyroxene, plagioclase feldspar, and often olivine), found in an extensive are of land on the hills there is evidence of such scraping and sculpting art depicting animals, plants, humans in a standing position with bent legs spread, tools such as axes with wooden handles, and geometric designs (Ballard, 1992, Wilsen, 2003). The existence of this rock art speaks of the cognitive capacity of their creators. The exact chronological order of this art is not known, but based on the complexity of the designs it is probably from the protohistoric period.

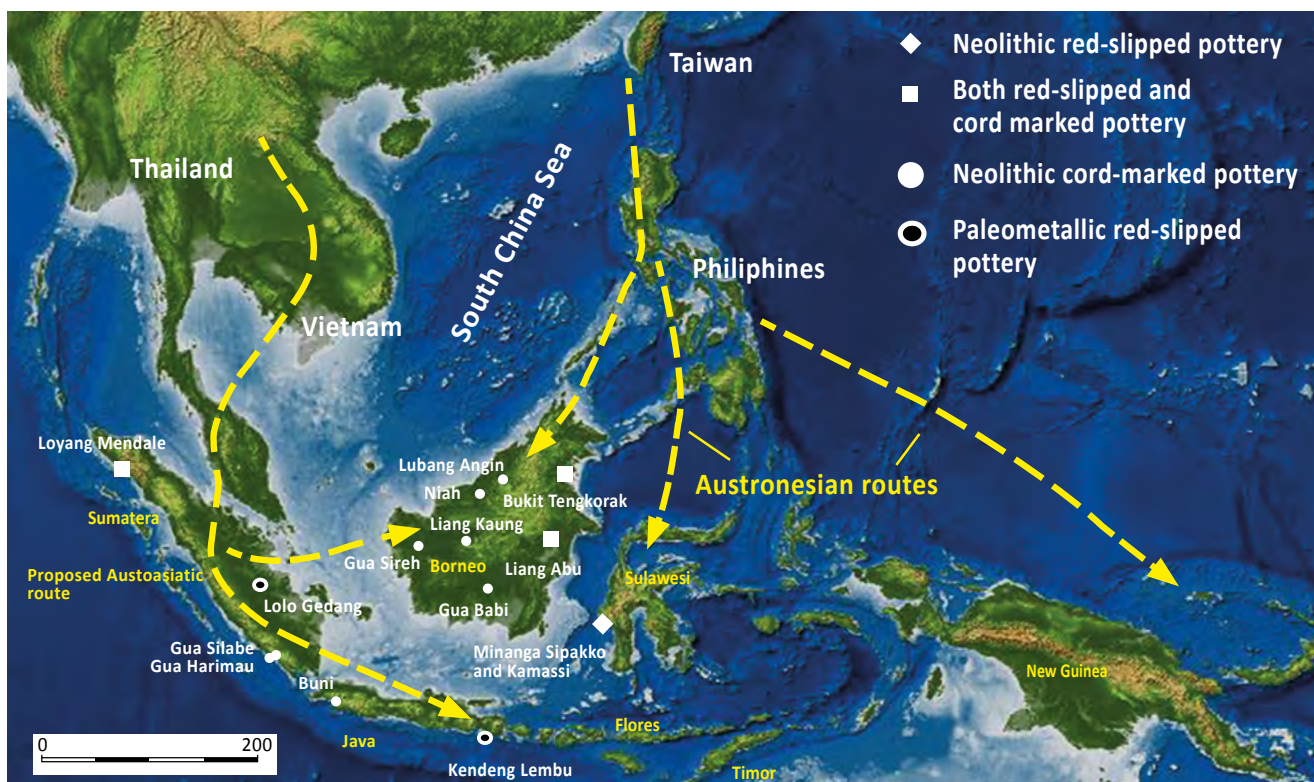
Material evidence of burials that underlie emerging belief systems have been found among the population of Australo-Melanesian. This includes both primary and secondary burial practices. In primary burial practices, the body was generally folded in a fetus-like position which is thought to be symbol of being reborn in a new world. Burial systems varied according to whether there were grave provisions or not, stones covering the grave or not, and a variety of positions for the dead body. Dead bodies could be laid out in a variety of directions. They could be placed lying east-west with the head facing east symbolizing a new life. Bodies were also placed facing a mountain or the sea which has been interpreted as the origin of a belief that this symbolized their return to the home they had come from. Usually, primary burial systems in Song Kepek saw the bodies folded lying sideways or flat on their back. Other orientations have been found. In one grave, the body was buried lying on its back (Simanjuntak, 1998). Using the C-14 method, the body was identified as being from the Mongolic Race and dated back to $7,020 \pm 180$ years ago. However, this date has been questioned. Later analysis suggested that it was from a period dated to $2,035 \pm 65$ years ago. (cal. 2,987 – 3,118 year ago) (Widianto, 2002). This second recorded date is in line with the regional Neolithic date. The first recorded date was a lot older and so far

Right: A few motifs in rock paintings in Harimau cave, OKU, South Sumatra.



Right: Folded burial position from Song Kepek.





Above: The main migratory routes into the Indonesian archipelago.

no comparable date has been recorded. If further evidence comes to light supporting this older date, it would have a significant impact on our present view about the timeline of Austronesians in the Indonesian archipelago.

In Braholo cave, primary burials were also carried in the folded manner. The dead were placed lying flat on their back with both legs folded so that the knees were close to the hips, while the left hand was folded and put on the chest and the right hand was folded with fingers touching the mouth. Pieces of limestone were put neatly covering the corpse's stomach and chest area. In secondary burials, either at Keplek Cave or Braholo Cave, the skulls, along with the hip bones and other long bones were considered the most important remains. The folded burial system was also found in Song Gentong (Tulungagung), Lawa Cave (Sampung), Ceruk Sodong (Puger), and Betpuruh Cave (Situbondo). In Song Gentong, the dead were sprinkled with hematic powder and a hematic ball (Noerwidhi, 2012) placed near the feet of the dead. At Lawa Cave, the folded dead body was covered with stones in a manner similar to that found in Braholo Cave.

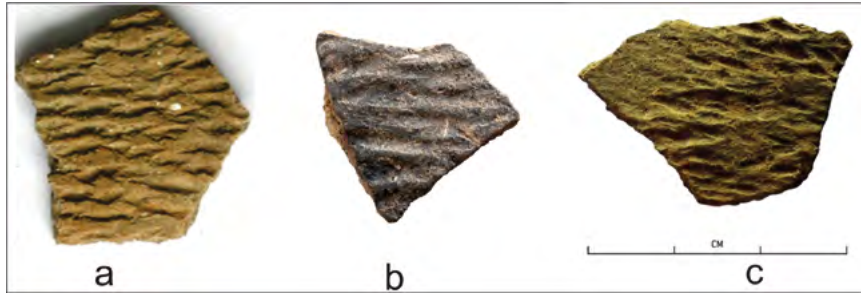
Outside Indonesia, variation in burial techniques can be observed at Niah Cave. In the inhabited layers dated between 12,000 – 1,500 BC. Both folded and sitting burial arrangements were found, and also secondary burial practices. The burial practices at this Cave had were being performed until 2.000 years ago when the dead began to be put in a casket and rolled inside a mat lying down in a flat position (Marliac and Simanjuntak, 1998). At the Cha Cave, Malaysia between 10,000 – 2,000 years ago, folded burial practices were used. The dead were sprinkled with hematic powder and covered with stones. At Kepah Cave (Malaysia), in a secondary burial practice, the corpse was also sprinkled with hematic powder (Brooks et al., 1977, Harrison, 1957). At Lan Rongrien Niche (Thailand), in the younger inhabited layers, the bodies were buried lying down flat on their back. In secondary burial practice aged 3,720 years (approximately ± 140 years ago) a number of provisions, such as a sharpened axe and a legged pot, were buried in the grave along with the dead (van Stein Callenfels, 1936).

The Arrival of the Austronesians

Around 4,000 – 3,000 years ago, depending on the area, Australo-Melanesians saw the arrival of new settlers who brought with them their Neolithic culture. Physically, they could be categorized as belonging to the Mongolic Race (Anderson, 1990). Present evidence suggests that they might have come from two or more different routes at different times (HUGO Pan-Asian SNP Consortium, 2009). The first route or “western route” is likely older. This route was taken by newcomers from Indochina, and probably from the China and Vietnam border. After passing down along the Malaysian Peninsula, they entered Sumatra, Java and Kalimantan. They spoke a proto-version of Austroasiatic languages, a language spoken by dwellers in mainland Asia, and related to Mon-Khmer and Munda. Cultural evidence supporting the western migratory route include the existence of adorned terracotta ceramics or decorated rope ceramics, shielding axes, and pickaxes. So far, the distribution of these show that these people’s dispersal was confined to the western part of Indonesia, with decorated rope ceramics found in Loyang Mendale, Takengon (Simanjuntak and Fauzi, 2015), Silabe Cave (Wiradnyana and Taufikurrahman, 2011), and Harimau Cave in South Sumatra, Buni in West Java (Simanjuntak and Forestier, 2004), Niah Cave and other caves in Kalimantan (Sutayasa, 1972). The western migratory route was proposed by linguists and archeologists (Plutniak et al., 2014). Subsequent evidence from further research in these and other disciplines has continued to support this view (Duff, 1970, Geldern, 1945).

The second route, “the eastern-path” started in Taiwan, with these early people moving southward first through the Philippines, and then entering Sulawesi and Kalimantan. Material evidence to support this route include red slipped ceramics, shoulder pickaxes, ladder pickaxes, and oblong axes which have been found in North Sulawesi. This group of newcomers are thought to have spoken a proto-version of the present day Austronesian family of languages. They are thought to have migrated later than those taking the mainland and peninsular western route, most likely 4,000 years ago. The oldest evidence has been obtained from Neolithic sites in Sulawesi. One of them is Minanga Sipakko site, in a remote area of Kalumpang. This archaeological site, near Karama River was a dwelling-place connected by a river with the outside world, possessing ample natural resources (stream fish, land animals, and grains) for food, and also with sources of schist and slate stones to make pickaxes and hatchets (Simanjuntak and Fauzi, 2015). From Sulawesi, the Austronesian speaking settlers spread widely across many islands in the Indonesian Archipelago, and, eventually, with populations in Malaysia, and small pockets in Vietnam, moved out eastward into the islands of the Pacific, eventually also moving westward and arriving in Madagascar on the coast of Africa. The spread of Austronesians in the west of Indonesia influenced the Austroasiatic-speaking people. Today, all populations in Western Indonesia speak only Austronesian languages. This restricted the growth of local Austroasiatic groups, so that the Austroasiatic speaking population is restricted to western Indonesia.

The arrival of Neolithic Austronesians resulted in interaction between them and the indigenous population so that mixing of cultures occurred. The evidence of this cultural mixing can be seen in almost all of the archaeological Neolithic sites. Ceramics and also hatchets, indicative of the Neolithic period, were always found in the upper layers in caves mixed with pre-Neolithic artifacts such as flake tools, and the remains of animals and grains or seeds. These discoveries have supported the view that the newly arrived Austronesians tended to live in caves and that they assimilated with the existing cave inhabitants. The material evidence found in the layers of Neolithic inhabitation showed that the new inhabitants had adopted aspects of the indigenous cultures. The evidence of interaction between the new settlers and the indigenous dwellers were further supported by the discovery of graves in Harimau Cave, Ogan Komering Ulu (OKU), where the Mongoloid burials in straight positions were found in association with Austramelanesian ones in a flexed position.



Belincung, a type of pickaxe, and decorated ceramics are the cultural symbols of the western path migration.

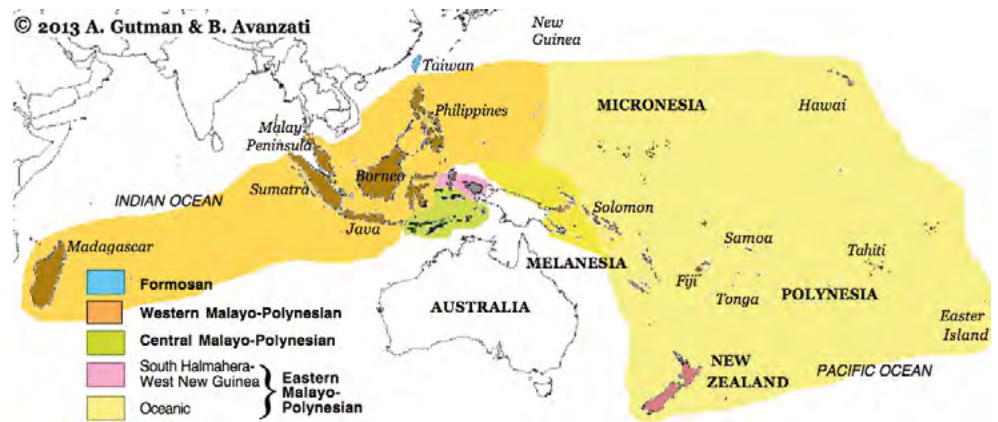


Oblong axes, shoulder axes, and red slipped ceramics are the cultural symbol of the eastern path migration.



Right: A map of the distribution of the peoples who speak languages in the Austronesian language family. These languages are found from Madagascar to Easter Island.

The different sub-regions of Austronesian are based on research in historical linguistics and represent sub-branches of the language family.



Patterns of Dispersal in the Indonesian Archipelago

The arrival of Mongolic settlers in the Indonesian Archipelago resulted in the disappearance of Austro-Melanesian dwellers, the ancestors of present day Melanesian population in Western Indonesia. Possibly around 4,000 years ago, the archaeological sites containing the remains of human beings and their Pre-Neolithic legacy disappeared. An explanation for this is needed. We know that in some communities, the two races intermarried as supported by the discovery of human bones whose characteristics were of a mixed type between Mongolic and Austro-Melanesian settlers. The findings at the Anyer archeological site, caves in East Java, Gilimanuk, and Sumba (Simanjuntak, 2008) provided support for the occurrence of interracial marriage in certain groups since proto-historic times. We could conclude that, these two races had coexisted in harmony since the proto-historic times (Heekeren, 1972, Soejono, 1984). But, we still need to explain why there wasn't any record of their coexistence before the pre-historic period? A tentative answer could be either because research has not revealed it yet; or because the population of Melanesia had completely absorbed the cultures of Neolithic Austroasiatic and Austronesian people so that the artifacts found were likely to exemplify the Neolithic culture.

Certainly, according to present day demographic mapping, the Melanesian population retreated to the eastern part of Indonesia, while the Austronesian speaking Mongolic population came to occupy the western part while also tending to spread to the east. This showed that the arrival of Mongolic settlers had forced the Austromelanesoid dwellers gradually into the eastern part of Indonesia, while the western part was gradually occupied completely by the Mongolic population. This happened also in mainland South East Asia,

but some remaining groups of Austromelanesoids can be found living in this region. They are the indigenous people of Malaysia, and Agta, the indigenous people of the Philippines. By and large, however, it can be said that the Austromelaneoids left the western part of Indonesia, and moved to eastern Indonesia for good.

Meanwhile, the native population living in the eastern part of Indonesia, in East Nusa Tenggara, Maluku, and coastal Papua, demonstrate the characteristics of Melanesians, but as one goes westward, the features gradually are seen less. For example, the physical appearance of the Flores population is different from those in the remote areas of Papua. Meanwhile, in at least some of the people of Maluku the characteristics of Mongolic peoples are more prominent than in the population of East Nusa Tenggara. The gradation of these characteristics may be caused by the intensified interracial marriage in Maluku because Maluku was the Mongolic population path as they migrated towards the Pacific.

While based on casual observation and the archaeological data, the findings above are supported by preliminary research done by Eijkman Institute about population diversities migrating to the Indonesian archipelago in the past. Out of nine samples so far analyzed, there were some genetic codes identifying the different waves of migration to Indonesia, from Taiwan (Haplogroup A), and the Southeast Asian mainland (Haplogroup M and F), and Haplogroup Q. The latter only had populations in Papua and Australia (Aborigines). They were the first EMH to arrive, the ancestors of Melanesian settlers. Apart from the mixed genetics of Austroasiatic and Mongolic population from Taiwan, there were also mixed genetics of Austroasiatic and Mongolic populations from the Mainland of South East Asia. The analysis shows that this mixing of populations happened gradually, and that the percentage of Austronesian genetics found in western Indonesia was higher getting gradually lower the further east one goes. Meanwhile, the percentage of Papuan genes was lower in the western part of Indonesia getting higher going west till reaching Papua.

The spread of Austronesian-speaking dwellers in East Indonesia is supported by the existence of Neolithic archaeological sites in this region. Recently, an Indonesia-IRD and French team found the sites of dwelling and burial places on Pain Haka beach, Tanjung Bunga in East Flores. They found at least 60 individuals, some of them buried in earthen crocks and others buried without. Along with the graves, they also discovered the remains of daily life activities, such as mollusk shells, fish bones, stone axes and also jewelry made of shells. These artifacts dated at 2,700 – 2,500 years ago¹⁴⁸. Other archaeological sites were Watokoba in Adonara, Lewoleba in Lembata dated to 2,990, around 160 years ago (Grn-14,308), Sulengwaseng in Solor, and Melolo in Sumba. Bellwood discovered many

Neolithic sites in Maluku, such as Golo Cave, Gebe Island, Uattamdi Cave in Kayoa Island, Tanjung Pinang Abris Sous Roche in Morotai, and Siti Nafsiah Cave in Halmahera (Bellwood, 1998, Simanjuntak et al., 2012a). Also discovered were the Neolithic inhabitation in caves in Timor Leste shown by the fossils of domesticated pigs (*susscrofa* and *suscelebensis*) along with fragments of earthen ceramics dated back to 2,500 – 2,000 BC (Glover, 1972, 1981, Glover, 1973). On Ai Island, near Banda, a Neolithic Site with domesticated pigs dated back to 3,100 years ago was also discovered (Bellwood, 2000). On the South coast of Seram, there are further Neolithic sites that have not yet been researched intensively.

There are plenty more Neolithic sites indicating the presence of Austronesian speaking settlers in these areas. The evidence shows that since 3,000 years ago, Austronesian speaking settlers occupied various islands. Different communities interacted with each other intensively using sea transportation. Their characteristic lifestyle consisted of hunting and domesticating certain animals and plants, and also making use of the water biosphere. Furthermore, they practiced a burial system without earthenware or without containers; they used axes, earthen ceramics, and other tools; they made clothes from tree bark; and they created jewelry made of clamshells and other materials (Lape, 2000). The Austronesian speaking dwellers in the western part of Indonesia also lived in caves where the Melanesian population lived, and some of them lived out in the open. Interactions among them happened easily, resulting in cultural adaptation and interracial marriage. The Golo Cave on Gebe Island, Leang Lemdubu on Aru Islands, and Abris Sous Roche of Tanjung Pinang in Morotai were caves where evidence reveals the continuity of inhabitation between the existing dwellers and the new settlers.

The Austronesian speaking migrants had continued spreading to the east, most probably along several routes and this kept recurring until the Proto-historic Era. The existence of Neolithic, Megalithic, and Paleolithic sites supports this. The influx of new settlers certainly influenced the existing culture including the language, and physical characteristics of the existing local population. One of the migration pathways was via the Maluku Islands continuing toward Papua. This is supported by the copious discovery of artifacts such as earthen ceramics ornamented with red paint in some archaeological sites in Papua. These artifacts have also been found in the Pacific, the Philippines, and Taiwan; they are associated with the culture introduced by Austronesian speaking settlers when they migrated from Taiwan. Stone pickaxes or clamshells and oblong axes found along with the earthen ceramics are indicative of Austronesian culture.

Generally, the Austronesian speaking settlers only spread along the northern coastline on the tip of South East Papua and around the islands near them, as shown at Neolithic Sites in Raja Ampat, Kepala Burung, Manokwari, Biak, Yapen and Sentani (Simanjuntak et al., 2012a). Skoumabo Cave located near the highway connecting Abepura and Skow Village near PNG border is also part of this (Mahmud, 2011). On the south-eastern coast, the evidence of their spread is seen in the cave paintings in the archaeological sites in Kaimana and the gulf of Berau. It was assumed that the Austronesian speaking dwellers came into this area around 3,000 years ago (Simanjuntak, 1998). The existence of paintings depicting ships and other tools made of metal in Indonesia indicated that some of those paintings were created by the Austronesian speaking dwellers, and some others were made by the descendants of the indigenous Melanesians.

Another migration route in the east was from Maluku to the Bismarck Islands. It was estimated that this was used around 3,500 years ago (Arifin and Delanghe, 2004). From there, migrations continued to the islands in Melanesia the Solomon Islands, Vanuatu, New Caledonia, and onward to Fiji and further east to Polynesia. From Bismarck Island, some of the settlers migrated to southern Papua and Papua New Guinea. The Austronesians demonstrated adaptive behavior during their migration to the Pacific. They enriched the original cultures by developing new cultures which were well-suited to the Pacific environment. This culture is known as Lapita. The Lapita culture is characterized by the existence of open dwelling places with square, stilt houses, food and vegetable collecting activities, and also the domestication of pigs, chickens, and dogs. The population consumed betel nut; they made earthen ceramics, axes, and jewelry made of clamshells; and they spoke some ancestral form of Austronesian (Kirch, 1996, Spriggs, 1999). Abundant Lapita earthen-ware ceramics have been discovered in various archaeological sites and are considered to provide convincing proof of the existence of the Austronesian speaking population. The development and enrichment of past cultures are depicted in the existence of anthropomorphic ornaments, and human figures portrayed in Lapita ceramics which previously had been discovered in the eastern part of Indonesia (Tanudirjo, 2011). Other developments included serration technique of ornamentation which had existed earlier in Kalumpang and red-ribbon pitchers in Halmahera (Simanjuntak et al., 2012a). If traced farther back, the Lapita earthen pitcher was similar to what was called the Magapit earthen pitcher in the Philippines. The existence of non-earthen ceramics, such as tools made of clamshells, ornaments, and axes made of stones and clamshells in east Indonesia were similar to those found in Lapita Sites in the Bismarck Islands added to the evidence.



Above: Lapita earthenware decorated with what appears to be a human face which was found in the Pain Haka site, East Flores.

If the direct migration to east Indonesia had reached only the coast of Papua, then it would have been similar to the migration of Bismarck Islands. There is evidence that the migration reached the eastern border of Jayapura, the Aitape Site on the northern coast of Papua New Guinea and the Manus Islands. The eastward migration went as far as Samoa (Kirch, 1996). Besides earthen ceramics, other evidence of the Austronesian's existence or migration included unique habitation patterns, economic strategies, tool making using other than earthen ceramics (scrapers, axes made of clamshells and stones, fishing equipment, and the use of shells as money). Shells became the currency used in trading with the coastal dwellers. The Mee tribe in remote Paniai used the word *mege* for the currency, while the Muyu Tribe in Mapi named it *ot* or *kauri* (Kirch, 1996, Tanudirjo, 2011). The western border of Austronesian migration was supported by the data of oceanic language spread; Austronesian language which was spoken in Pacific was also the evidence of the Austronesian spread at the most western tip reaching the eastern part of Jayapura (Mahmud, 2011). These findings were also supported by the genetic data. This showed that the indigenous people in the remote area of the high-peaks had difference genetics

compared to the settlers along the coast. They were generally darker and had dark curly hair similar to the Aborigines of Australia. Based on these differences bio-anthropologists classified them as the Papuan Race. Another classification which ignored these differences was as the Melanesian Race.

As happened in Papua, the migratory dispersal from the north to Papua New Guinea only existed as far as the eastern Jayapura coast, and from the Manus Islands to Samoa (Tanudirjo, 2011). The Austronesian speaking migrants seemed to be hesitant to penetrate the remote interior of this large island. Many assumed that the indigenous inhabitants had already established sophisticated cultures so that these cultures dominated and influenced the periphery cultures. The interior of Papua was one of the oldest centers of agricultural development in the world. Another reason was related to the cultures of the migrant settlers. The Austronesian speaking settlers, especially in the eastern part of Indonesia lived in a maritime environment, so they preferred living along the coast to moving into the interior. Movement in the interior was challenging and risky with its thick vegetation and mountainous areas, all of which would have been unfamiliar to the Austronesians (Kirch, 1997). Or perhaps, those who attempted journeys to the interior fell victim to illnesses which they did not have immunity to and so people over time learned to avoid the interior.

Entering the Proto-historic Era

The protohistory of Indonesia, a transition period between prehistory and history, is commonly described as starting around two thousand years ago. During this period, the thriving interactions between the indigenous settlers and the outside world are recorded in texts produced by the cultures they came into contact with. For example, the Ramayana and Mahabharata epics which were probably written between the fourth century B.C. and the second century of the Christian era, mentioned Sumatra (*Suvarnabhumi*) and Java (*Jawadwipa*). The names show that Indonesia and India had a relationship at that time (Tanudirjo, 2011). Moreover, in the early Han in China, writing by Ban Gu (32 – 92 AD) mentions that King Wu established a trading business with India which passed through South East Asia. Chinese traders traveled south using ships owned by Austronesians. This is supported by the discovery of ceramics dating back to the 2nd century BC in the Han Dynasty, found in Sumatra and other regions in Indonesia.

During this period, the seafaring was widespread and intensified contacts between Indonesians and traders from mainland South East Asia, China, India and Europe intensified. This international sea trade was driven by increasing demand from people



Maritime trade routes during the proto-historic era connected Indonesia to China, India, the Middle East and Africa.

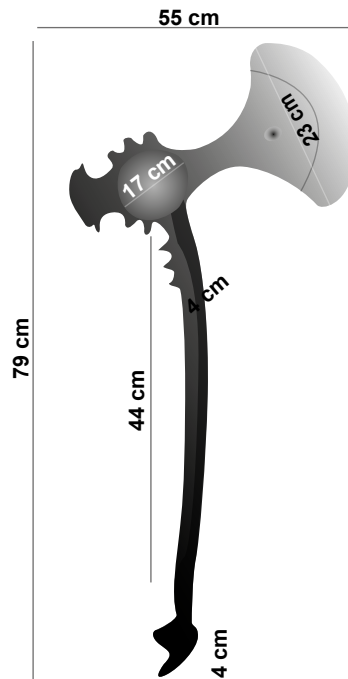
in the Mediterranean, India and China for exotic goods. The discovery of glass beads in Thailand, Vietnam, Malaysia, and Philippines dating back to the fourth century BC provides material evidence for this. Similar glass beads dated 195 BC and 6 AD (Coedès, 1968) were also found in Gilimanuk, Bali, along with the discovery of “Indian rouletted” earthen ceramics dated 1 – 2 AD in Kobak, Kendal and Cibadak, West Java (Glover and Henderson, 1995). The *Periplus* manuscript dating back to first century AD refers to connections with Europe. It describes the journey sailing through the Indian

Ocean (Ardika, 1996). Other information related to cloves from Maluku reaching the Mediterranean where the Romans traded in spices took place around 70 AD (Higham, 1989).

In the South East Asia region, the most important regional trade was the arrival of exotic goods of Dong Son culture into the Indonesian Archipelago. This trade included items such as musical instruments, jewelry, tools, weapons, bronze drums, various kinds of axes, fishhooks, arrowheads, blades, and swords. The population in the Indonesian Archipelago traded local commodities for all of these items. They sold items such as camphor, Sumatran incense, eaglewood and sandalwood from Nusa Tenggara, spices from Maluku, precious metals including gold and silver, and handicrafts. The evidence for trading of goods from the Dong Son culture can be found all over the archipelago, not only on the bigger islands, but also in small islands which likely were the transit points along the trading routes.

The discovery of bronze vessels in Jambi and Madura, kettle drums in Plawangan, Weleri, Manikliu, in the islands of Sangeang, Selayar, Leti, Luang and Kei along with the Seruti axes in Rote and Papua prove that regional trading not only involved the Austronesian population in the West, but also the Austro-Melanesian population in the East. In Papua, for example, some Dong Son bronze goods were discovered; there were different kinds of drums in Aimarua and funnel axes in Sentani (Bellwood, 2000). Other reported discoveries were bronze axes in Koor (Sorong) and Kwadeware (Simanjuntak, 2010). The discovery of this bronze-ware and the findings of Dong Son artifacts in the small islands of east Indonesia support their interaction with Austro-Melanesian population through trading.

Items of Dongson culture which were traded in Indonesia around the beginning of the Christian era.



Trading activities flourished because the people of the Indonesian archipelago had interacted with the rest of the world. It is possible that in coastal areas, and also perhaps inland, the rudimentary beginnings of some cities which often had connections with the outside world had been established. Social stratification based on specialization and expertise of certain population groups had been distinguished. There were population of traders who often had contacts with the outside world, populations of farmers, and there were also traditional leaders who got respect because of their seniority, experience and their capabilities in doing certain things. These leaders had greater access to the exotic goods although other social groups might also have been able to obtain them.

The developing complexity of life was resulting in the readiness of the people in the Indonesian archipelago to embrace outside influences, and foreign culture. But those cultures were not adopted wholesale as they were practiced in their original countries. In architecture, the structure of temples when Hindu and Buddhist cultures arrived in the Indonesian archipelago around early AD was influenced by Indian and Indonesian cultures. Hindu temples, for example, were a combination of Hindu temple architecture

and megalithic multilevel terraces. The function of temples in India was to worship their gods while in Indonesia they served as the King's Dharma embodied in certain deities (Prasetyo, 2011).

Other significant Austronesian influence in this period was megalithic culture; with veneration for big stones as the way to respect ancestral spirits. In Papua, the remains of megalithic culture are found in the fortresses at the site of Claudi in Tomolol village, Raja Ampat Misool. There were stone jars or crocks in Fafanlap and Misool; there were also figurines in Biak, and *menhir* at Sosoraweru Cave in Forir village, Fakfak. Other megalithic elements, such as offering places have been discovered in small islands surrounding Papua (Soekmono, 2005). In Tutari, besides engraving arts and stone sculpting, there were also *menhir* and stone enclosures (Mahmud, 2011).

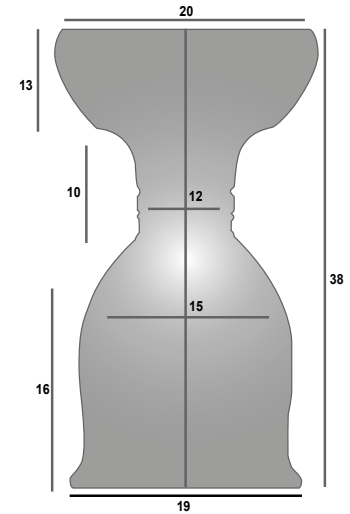
Sustainable Cultural Traditions

The Melanesian populations in Indonesia have pre-historic cultures either as their indigenous culture or as adopted Austronesian culture. Concerning material culture, one of sustainable traditions is the functions of *moko*, a small bronze kettledrum, which is still preserved by the people of Alor today. It is similar to bronze drums, and has an important role in social and cultural life of Alor community. It functions as a symbol of richness, pride, the existence of family and tribes. It is also used in as marriage dowry. Furthermore, *moko* can also be used as a payment for fines, or trading, and it is even used in unifying families and tribes (Prasetyo, 2011).

The origin of the *moko* kettledrum is not known with certainty, but historically, but it is similar to bronze drums of the Dong son, which is the most probably the product of Dong Son Culture that entered Indonesian archipelago in the early AD. The bronze drums found in other islands were predicted arrival from the activity of insular trading where the traders bartered their bronze wares of Dong Son with the commodities of the Indonesian archipelago. The bronze kettledrum which functioned as status symbol and was used for ceremonies had important role in social life of Alor community; it continued at a later time. Nevertheless, since the number of bronze kettledrums was decreasing, they substituted them with small bronze kettledrums made in Surabaya and Makasar. Interestingly, although the *moko* kettledrum was not produced by the Alor people, they were used from generation to generation not only as things of value, but also for several purposes described above. With these functions the *moko* kettle drum became a distinctive part of Alor cultural identity.



The Moko, a type of drum, still used for a variety of purposes to this day in Alor society.



Another cultural tradition was the round axe which was still found in Papua. Similar to the moko kettledrum, it seems that oblong axe was brought into Indonesia by the Austronesian speaking dwellers, including the Neolithic culture found in the eastern part of Indonesia. This culture had spread widely throughout many regions including the Philippines, Taiwan, mainland China and Japan. This culture arrived in Melanesia¹ from China or Japan through Taiwan, Philippines and Indonesia (Simanjuntak et al., 2012b). This tradition was followed not only by the population in the coastal area where the Austronesians and Melanesians interacted, but also by the indigenous people in the interior. Some regions which still preserve the tradition of producing oblong axes are at Cykloop Mountain, Ormu in Sentani, Ngolo Valley in the mountains of Jayawijaya, Jabodide and Kobutu in the mountains of Weylan, and Gatini Wonggeme village in Tolikara (Heine Geldern, 1945).

Two questions can be asked about the existence of the oblong-axe making in Papuan society; how did they know this culture, and how did they preserve the oblong axe which had practical and social functions in Papuan society? The most likely answer is that the oblong axe was an adopted Neolithic culture from the Austronesian speaking population. Its practical functions were suitable for the Papuan environment; it could be used as a tool to cut trees, for carpentry, and to open up sago stems. These might have been reasons for its adoption. Other functions, such as a status symbol, dowry, traditional fines, and ceremonial object made the oblong axe a part of the culture. It was also possible that the original oblong axe was part of Melanesian population culture. It could have been part of the give and take process between the populations. Austronesian speaking settlers,

adopted aspects of Melanesian culture, such as making use of sago, banana and caladium (Mahmud, 2011).

Betel chewing is still common in the Papuan community. This habit is assumed to be adopted from the Austronesian speaking population, but it has also been suggested that this it was originally from Indonesia. The first indication of betel chewing is found in a human grave dated back 3,000 BC at Duyong Cave in the Philippines (Rooney, 1993). At the Spirit Cave in north-west of Thailand, burned areca seeds dated 7,000 – 5,500 BC were also found (Bellwood, 1979), but determining whether they had any connection with betel chewing needs further research. Another source was in the records made by Chinese merchants. These records indicate that betel leaf and areca seed had been consumed since the 2nd century BC, as part of the betel chewing tradition (Gorman, 1970).

If all the findings and the records above were correct, the betel chewing tradition was known in south-east Asia during the Neolithic era, through the proto-historic era, and it has been a commonly practiced activity up until the present. Nowadays, among the Austronesian speaking population, this tradition is no longer popular. They have begun to leave the betel chewing tradition behind. Only certain tribes, mostly older people, who live far away from urban areas, keep this tradition alive. On the other hand, among the population of Melanesians, especially Papuan people, betel chewing is still preserved. It is not only done by females, but also by males. This adopted culture is well-preserved because just like cigarettes, in the beginning it is meant to eliminate the discomfort. But, along the way it becomes a habit and it is not easy to quit. Betel-chewing has a number of functions, such as keeping the teeth healthy, strengthening brotherhood and offerings in traditional ceremonies, which can keep this tradition alive. Another factor is the influence of modern culture. The influence in the western part of Indonesia is stronger than in eastern part of Indonesia. So, the betel-chewing tradition is getting abandoned in the west part of Indonesia while in the eastern part it is still preserved.

There are more traditions, either local, or adopted which are still well-preserved among the Melanesian. Local traditions such as making use of sago as a staple food, animal hunting, and fishing are still well preserved. The art of weaving, is still preserved with its unique local designs and motifs. Houses made of wood with a conical roof called *honai*, is also well preserved especially inland. The tradition of worshipping the ancestors' spirits and the belief in supernatural power being possessed by certain things, such as stones, axes, shells, and others that can influence their lives continues. These traditions are still practiced by the population living in the center of the mountainous regions and

by some tribes living in the south-coast of Papua (Reid, 1985). The tradition of adopted cultures, such as earthen ceramic making practice has been discovered in the North Coast, Cendrawasih Gulf, and in the area of Birds Head (Mahmud, 2011). These traditions and other traditions that have not been discussed here are interesting to research extensively to understand more about Austro-Melanesian original culture or the product of interaction culture with the Austronesians. It should be remembered that local wisdom needs to be elaborated and developed at present. Knowing more about cultural values and actualizing them will enrich Melanesian identity and also the culture of the nation.

Melanesia in Perspective

The Melanesian population living in the Indonesian Archipelago and the Pacific has gone through a long journey. Their ancestors were involved in the dynamic life of populations all around the islands since the second half of the early Pleistocene age. At that time, their ancestors, the early modern humans, lived across a vast area of Indonesia, South-east Asia, Melanesia and Australia. Their arrival was one of the four major events of the history of Melanesia. The existence, origins and the dynamic life of Melanesian population was clearer than for the Mongolic Race. The origins and the development of Mongolic, Austronesian speaking population are more complicated and still debatable and different from the origin and development of Austro-Melanesoid.

The Melanesian population's ancestors were early modern humans. These are thought to have originated in Africa, who over time dispersed to many parts of the world including to Indonesia and further to western Melanesia and Australia. Around 12,000 year ago, when the Ice Age ended, the sea level rose significantly. Subsequently, there was an increase in the rate of growth of the population, and these early humans spread to new areas which had never been inhabited before. In South-east Asia, West Melanesia, and Australia, the descendants of early modern humans have different features to other populations in the world (Suroto, 2011). Bio-anthropologists categorize them as the Australomelanesoid Race, a *Homo Sapiens* subspecies (Jacob, 1976). These early human populations are the ancestors of the present day Melanesians.

The descendants of this first wave of early humans produced developments in their culture, with intensification cave habitation, increase in variation or types of materials used to make devices, the development of art and the concept of belief. Their lives entered a new phase when the third big occurrence happened around 4,000 years ago, with the arrival of the Mongolic Race in the Indonesian Archipelago. The Austronesians came through two

routes. One was the western migration route through mainland and peninsular south-east Asia and they spoke an ancient form of Austroasiatic language. The other was the eastern route from Taiwan and these people spoke an ancient form of Austronesian language. The interaction between these two races is still being investigated. However, it is the Mongolic populations that now dominate, along with the many languages in the Austronesian family.

The presence of these new comers must have had an impact on the life of the indigenous Austromelanesoids. The interactions between these two different races led to a mixing of culture and biology. Archeological evidence reveals that there were co-habitation periods between these two races in the islands. There was a strong indication that the migrant populations had absorbed certain cultural aspects of the existing populations they interacted with. On the other hand, the meeting of these two races caused the Australomelanesoid populations, slowly but surely, to migrate towards and occupy the eastern part of Indonesia. The cultural and biological interactions kept taking place, especially in the contact zones of the eastern part of south-east Nusa Tenggara and Maluku. This led to a new population which had shared characteristics, blending Melanesian and Mongolic in different degrees, although the original characteristics were still dominant. Since the arrival of the Mongolic population, the interactions continued and colored the life and history of Indonesian Archipelago. The Austromelanesoids are better known as Melanesian.

The fourth major occurrence took place in the recent historical period when Indonesia was struggling for its independence from the Dutch. The people in the Indonesian Archipelago united to establish a unified state, the Republic of Indonesia. The interaction of these two populations was getting intense in various aspects of life, so that the biological and cultural bonds were formed. Hence, frictions between them also occurred particularly with Papuan population which had colored the political journey of our nation. Indonesian people have mobilized intensely from the East to the West or vice versa because of the concept of the united Republic of Indonesia, and it is likely to be more intense in the future. If this condition keeps going on, the cultural and biological amalgam between those two will be more resilient. One of the aspects that unite them is the Indonesian language, *Bahasa Indonesia*. In fact, the Papuans and people living in the eastern part of Indonesia in general, even people living in remote areas speak *Bahasa Indonesia* fluently, a lot better than their fellow-countrymen living in the inland of western Indonesia.

In the future, the synergy and unity of these two groups is the only way to keep up the nation's fighting spirit. The united Republic of Indonesia should be developed based on the principles of equality, togetherness and brotherhood. Interactions and communications



Above: Betel nut chewing, a practice which is still found widely in Papuan culture.

should be established so that the eastern and western populations can have a national synergy. Contextually, cross-cultural activities, such as festivals, mobilizations of students from universities, sports, cultural missions, and even promoting culture abroad are strategic ways to strengthen Indonesia's unity and to generate an amalgam. One thing that has not been discussed broadly is the lack of contribution of Papua and the eastern part of Indonesia in general to the development of national culture. Investigating and tracing the momentum of local culture, including

local wisdom must be done in the Eastern Indonesia to enrich Indonesian history and to create Indonesian civilization.

The Melanesian population faces the challenge of playing a greater role in the national development. The key to this is to promote better education and to alleviate poverty. Better education can contribute to a better population performance nationally, at the same levels or even better than their fellow-countrymen of the Mongolic Race. There are two important achievements known worldwide from the ancestors of Melanesians; the oldest finger paintings in the world discovered in Maros Cave and the oldest agricultural development center in the world. These two significant discoveries should be better known and should motivate and also inspire the development of local people in various fields at the present time not only nationally, but also globally.

Acknowledgments

I would like to extend my gratitude to my colleagues, Prof. Dr. François Sémah, Department of Prehistory, Museum National d'Histoire Naturelle, Paris, France, Dr. Daud Aris Tanudirjo, and Fr. Harry Widiyanto for their comments and advice given to refine this writing.

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CHAPTER 2

Herawati Sudoyo

The Genetics of Indonesian Melanesia

Introduction

In the last chapter of *The Malay Archipelago* (1869), Alfred Russel Wallace (1823-1913) concluded that there were two different races inhabiting the archipelago the Malays and the Papuans: "The Malays, occupying almost exclusively the larger western half of it, and the Papuans, whose headquarters are New Guinea and several of the adjacent islands. Between these in locality are found tribes who are also intermediate in their chief characteristics and it is sometimes a nice point to determine whether they belong to one or the other race, or have been formed by a mixture of the two."

Reference to the Malays and the Papuans as two different races has become politically sensitive nowadays. Population genetics expert Cavalli-Sforza (2000) has given strong evidence that dividing human into "races" is fallacious. Biologically, there is only one modern human race *Homo sapiens*. Therefore, the terms "Malay race" or "Papuan race", and any reference to groups of humans as races is avoided. Instead, the terms population, peoples, or group may be used, depending on context.

However, Wallace was not completely wrong in his attempt to divide the human population of the archipelago into two groups, based on the geographical distribution as was done with its flora and fauna. The phenotypes of people in the eastern part of Indonesia are indeed distinct from those in the west. As noted by Wallace, Papuans who inhabit islands in the eastern part of the archipelago (Alor, New Guinea, Papua), do have a distinctive appearance, for example their skin color that is "deep sooty-brown or black. The hair is very peculiar, being harsh, dry, and frizzy; growing in little tufts or curls..." These characteristics distinguish them from people in the western part of the archipelago, who, as Wallace said, had a skin color that was "light reddish brown, with more or less of an olive tinge... The hair is equally constant, being invariably straight, and of a rather coarse texture." Meanwhile, Wallace described the physical stature of Papuans as bigger than the Malays, even similar to or larger than the Europeans. "The legs are long and thin, and the hands and feet larger than in the Malays. The face is somewhat elongated, the forehead

flattish, the brows very prominent; the nose is large, rather arched and high, the base thick, the nostrils broad..." These features were different from people in the western part of archipelago who he noted as having faces which were "a little broad, and inclined to be flat; the forehead is rather rounded, the brows low, the eyes black and very slightly, if at all, oblique; the nose is rather small, not prominent, but straight and well-shaped, the apex a little rounded, the nostrils broad and slightly exposed; the cheek-bones are rather prominent, the mouth large, the lips broad and well cut, but not protruding, the chin round and well-formed."

Similarly, the two groups have marked differences in their languages. Populations in the west are speakers of languages in the Austronesian family and those in the east of the Papuan family. The term Melanesia was initially used by a French explorer, Jules Dumont d'Urville (1790-1842) to identify people with dark skin inhabiting the western Pacific. Therefore, Melanesia was first used to refer to a geographical zone. This Melanesian region was comprised of many islands stretching from New Guinea to the east, including the Bismarck archipelago, the Solomon islands and Vanuatu, New Caledonia, Fiji, and Australia. These areas were eventually referred to as Oceania by some scholars. The western Pacific was called Near Oceania, while the eastern Pacific was called Remote Oceania (Kayser, 2010). The archipelagic cluster is now coincidental with the territories of a number of countries including Fiji, Indonesia (East Nusa Tenggara, the Moluccas, Papua), Papua New Guinea, the Solomon Islands, Vanuatu, New Caledonia, East Timor, and Samoa. These countries joined the Melanesian Spearhead Group (MSG).

Although Melanesia was initially a geographical term coined by d'Urville, it was racially motivated in that it grouped people according to the color of their skin. Strangely, it has come to be accepted and widely used by people of the MSG countries. The Melanesian population is indeed distinct from the other *-nesians* (Austronesian, Polynesian, Micronesian) to some extent. Biological characteristics of populations in the Melanesian region are thought to be different, in particular with regard to differences of ABO blood type frequency in Java and Papuan populations. Blood type is one of the classic genetic markers along with red blood cell protein markers such as Gm, Gc, Transferrin, and Diego. Cavalli-Sforza et al. (1994) concluded that populations in the Melanesian region have at least eight different blood type alleles when compared to the other *-nesians*. However,

following advances in genetics, the concept of definitively separating Melanesia from other *-nesia* groups, especially from the Austronesian-speaking group, now faces significant challenges. The latest population genetic studies suggested a gradated mixture rather than clearly demarked separation. This chapter will try to explain Melanesian genetics and its perspective as part of Indonesia.

First Migration *Out of Africa*

Geneticists as well as anthropologists and archaeologists now agree that the ancestor of all modern humans (*Homo sapiens*) are descended from a single female individual, literally from the same womb, a woman who was part of a small group of early humans in Africa. Many of the oldest human fossils in Africa, one of them the approximately 200,000 year old remains from Omo Kibish in Ethiopia, are the basis of this theory. No fossils as old as this have been found anywhere other than Africa.

In genetics, the Mitochondrial Eve model presented by Rebecca Cann, Mark Stoneking, and Allan Wilson (1987) in *Nature* was an important contribution supporting the *Out of Africa* theory. They analyzed DNA, genetic material that is found in cell organelles called mitochondria. When an egg from a mother and a sperm from father are fused and

Map of early human migrations based on Y-chromosome data. The data shows the migratory paths of male ancestors originating in Africa and going to Asia.



fertilized, only mitochondria from the mother form part of newly-formed embryo cells. As a result, mitochondrial DNA (mtDNA) is only inherited from the maternal line and not from the DNA of both parents. In other words, a mother will pass on her mtDNA to all of her descendants and the daughters will in turn pass it on, and so on across the generations (Wallace, 1995). Therefore, the study of mitochondrial DNA provides us information about female kinship and migration history, all the way back to the first woman.

It is also possible to trace the journey of male ancestry through the Y-chromosome. The Y-chromosome is a long strand consisting of 60 million base pairs (bp) of one DNA copy from sperm that is also inherited from one parent. Inside the Y-chromosome there are repetitive short sequences of nucleotide bases called Short Tandem Repeats (STR) and other markers in the form of single nucleotide bases named Single Nucleotide Polymorphisms (SNP). Both of these can be used to reconstruct the history of male kinship and migration. These DNA markers are much more informative compared with classical genetic markers, which in the past used blood type. There are a number of reasons for this. First, there have been many characters collected to enable better past kinship analysis. Further, both mitochondrial DNA and Y-chromosomes are inherited from only one parent, female and male respectively, and this could illustrate recent demographic processes and the latest evolution history. Another supportive factor is that both are neutral markers because they do not affect phenotypes and therefore are free from environmental influence.

Genetic information, the blueprint of life in the form of DNA strands, is passed down to our children and subsequent generations. However, the multiplication or replication of DNA molecules which occurs during this is not always accurate. Errors in copying the genetic information can cause mutations or changes in the nucleotide bases of the DNA. These mutations are accumulated from one generation to another. The larger the number of mutations accumulated in the DNA of two individuals living at different times, the greater the kinship distance between them. The variation in bases or polymorphism resulting from this process is called SNPs. SNPs can be used to differentiate one individual from another and is the most commonly found DNA variation. SNPs can also play a role as a genetic background or as a predisposition factor which influences susceptibility or sensitivity to certain diseases. Data from various research reports also indicate that SNP is population specific.

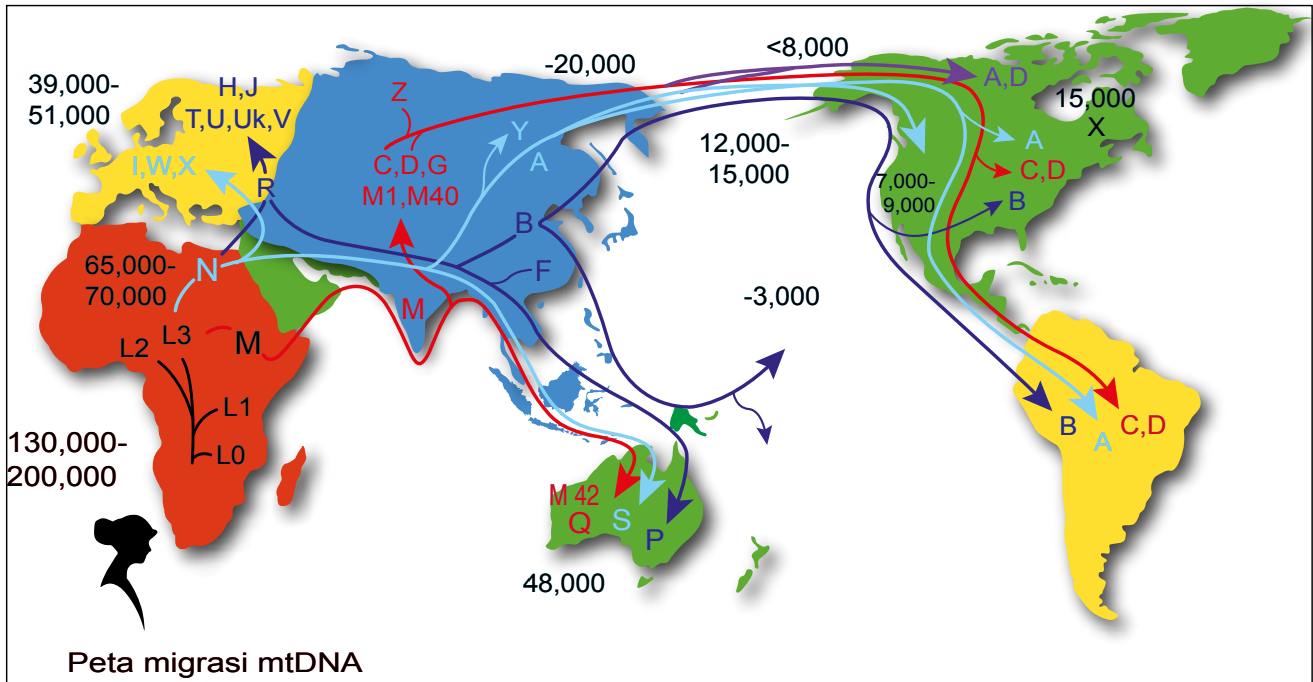
The combination of bases in certain locations in mtDNA is used to determine the maternal inheritance line. This combination is called the mtDNA haplotype and is generated based on polymorphism variations found in various locations in D-loop

mitochondrial DNA or in the coding areas in mtDNA. The grouping of several haplotypes are called haplogroups. These mtDNA variations are known to be linked with an individual's ethnicity and geographical origin, which is useful in molecular anthropology and forensic science. The outlook of haplogroups found in Indonesia is an expression of modern human population migration waves.

Such DNA variations can help create kinship trees or phylogenetic trees based on the DNA sequences. Sequences of D-loop mitochondrial DNA and coding areas are employed in order to build phylogenetic trees from the maternal line. Using this method, the earliest single maternal ancestor of all contemporary humans can be traced genetically to a woman who lived in Africa around 100,000 years ago. Meanwhile, male migrations can be traced using the Y-chromosome population marker. This evidence shows that their ancestor was from Africa, as was the female ancestor traced from the mtDNA. The male ancestor, referred to as "Adam" and female ancestor, "Eve", were found to have existed in the same period of time, that is around 100,000 years ago. After this time in Africa, for unknown reasons, they or their descendants then migrated out of the area in several waves and eventually spread to all corners of the planet, hence the description of this as the *out of Africa* theory.

The migration out of Africa was not a single occurrence, but rather a series of sporadic events. The population that left did so in many groups, many waves, and by different routes. The complete history of these ancestral journeys can be traced using mathematical calculations from DNA sequences of current populations. Population structures are established from the distribution of allele variations in populations as well as between populations. Beside the allele distributions, a phylogenetic or kinship tree analysis that is developed from various loci in the DNA can be employed to determine the hierarchy of ancestral orders of certain genetic variations. Phylogenetic trees give information about the order and distances of the birth period of generations of our ancestors. A phylogenetic tree can show the presence of non-African populations in a cluster or group of African variations in Y-chromosome as well as mitochondrial DNA, which both are the main population markers. Both of the markers can be used to differentiate the genetic grouping based on the continental origin.

The conclusion that the ancestors of modern humans came from Africa was also supported by comparing the genetic diversity of current populations in Africa with populations outside of Africa. It was found that Africa had far more genetic diversity than outside it. The site of genetic origin is usually highly diverse while the area at the end of

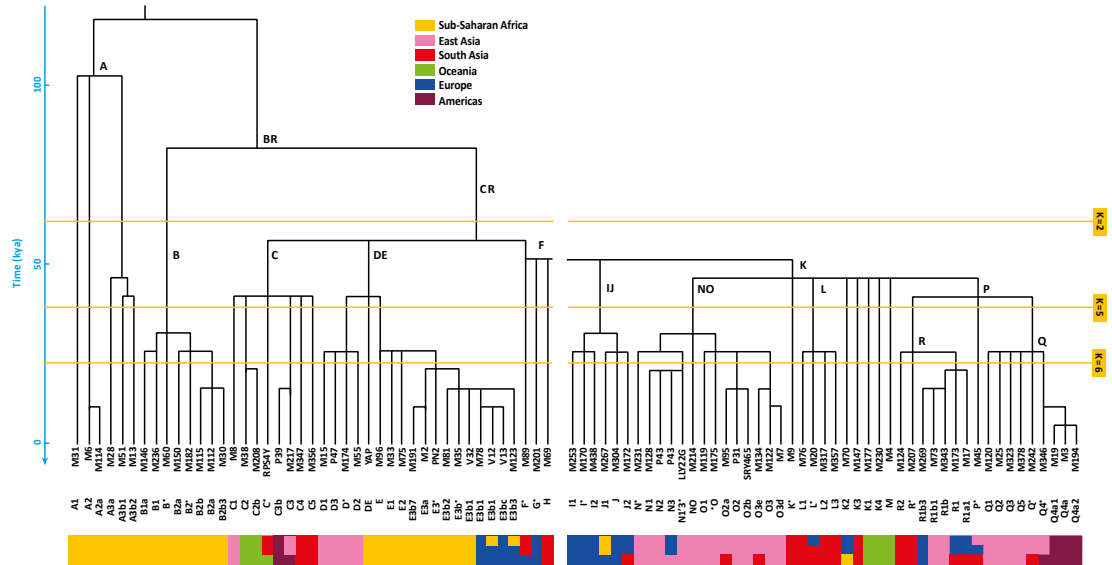


Map of early human migratory paths out of Africa based on Mitochondrial DNA. (Mitomap.org; 2013)

a migratory route is much more homogenous. So, there are several lines of evidence that support the theory. Nevertheless, there are three fundamental questions that need to be addressed about the *out of Africa* exodus. First, how many routes were taken during the initial journeys as evidenced by archaeological findings? Second, which archaeological findings support the modern human genetics evidence? Third, when did they move out and when did they settle in a particular location?

These questions can be answered after the discovery of sequencing technology which enable the reading of DNA sequence, as well as the Restriction Fragment Length Polymorphism (RFLP) method which is used to look at DNA bases variation at certain locations. These two methods allow the building of the mtDNA phylogenetic tree. By establishing a mtDNA phylogenetic tree we can get a detailed picture of female ancestral migration that tells us when they were separated into groups (haplogroups). Simply put, the original populations in Africa can be divided into three haplogroups: L1, L2, and L3. Haplogroup L3 migrated out while L1 and L2 stayed in Africa. After this migration, L3 then produced new haplotypes M and N (Quintana-Murci et al., 1999). In addition to these, several other haplotypes spread around the world as the branches of L3.

Right: Diagram of phylogenetic tree and its structural analysis for Y-chromosome haplogroups. The different colors represent the geographical regions. Cluster K in the tree shows primarily Asian and Oceanic groups. (Underhill & Kisivild, 2007)



The journey taken by our male ancestors can also be understood in a similar way to the tracing of our female ancestors through mtDNA. The male haplotype is determined by Short Tandem Repeats (STR). This method can produce a phylogenetic tree of Y-chromosomes which can be divided into haplogroups A and B which spread solely in Africa. Haplogroup A branched out as E and F, both of which eventually went out of Africa. However, haplogroup E stayed in Africa. Haplogroup E is called the African haplogroup while the ones which moved out are called non-African. Haplogroup E migrated to the north and gave rise to many branches of other haplotypes. Meanwhile haplogroup F followed the southern migratory route along the coastal areas, travelling through Indonesia and ending finally in Australia. The haplogroups that eventually spread to all places around the Earth were offshoots or combinations of these E and F groups. For example, E formed D and C. Then, C migrated from Asia to America. Meanwhile D formed O, which then went south to Indonesia (Figure 3). Recent research allows a more detailed analysis of each of the Y-chromosome haplogroups. In each of these haplogroups, there are sub-haplogroups such as CR which consists of three sub-branches C, DE (consists of D and E), and F. These are African and non-African haplogroups. Using a structural analysis, it was found that Africa and Asia shared haplogroup DE and non-African haplogroup C dispersed in East Asia, Oceania, and America. Other globally distributed non-African groups include F-M8g with its branch haplogroup K. These sub-haplogroups F and K provide proof of regionalization. Haplogroup F* and H are only found in Asia, while the geographical center of haplogroup

I and J is in Europe. In East Asia, haplogroups N and O which come from K are the most commonly found. Another important haplogroup is Q in northeastern Asia and America, as well as R whose phylogenetic distribution covers North Africa, West Asia, and Europe (Underhill and Kivisild, 2007).

The genetic traces of Y-chromosomes and mitochondrial DNA of the present day Indonesian people can also be used to identify their ancestors, and to trace the place and times of their early migrations. The evidence takes us back to Africa, at around 70,000 years ago. After being settled there for tens of thousands of years or maybe more, they began leaving Africa. This movement is referred to as Out of Africa. We do not know the reasons that led to this migration. There is some difference of opinion on the dates and numbers of these migrations. For example, geneticist from the University of Oxford, Stephen Oppenheimer believes the migration from Africa occurred in several waves. He suggests that the first phase happened even earlier, at around 120,000 years ago followed by another migration around 71,000 years ago (Lahr and Foley, 1998, Underhill et al., 2001).

Mitochondrial DNA analysis of female ancestors shows haplogroup M was the first group which arrived in Indonesia. Meanwhile the Y-chromosomes of the male ancestors suggest that the first group which migrated and arrived in Indonesia was haplogroup F. The groups that left Africa could have had no knowledge of the geography of the earth or have had their descendants' final destination in mind. They most likely moved when their present conditions were inhospitable enough for the risk involved in trying to find somewhere better. The early phases of migration were all from west to east. This follows the warm line of the sun's rotation. It led them along the coastal route of South Asia and onwards to Southeast Asia and eventually to Australia. Traces of these early modern humans have been found in Southeast Asia, dated about 50,000 years ago and in Australia dated about 46,000 years ago. Australia had never been occupied by the archaic human, *Homo erectus*.

For at least 40,000 years, these early modern humans which we refer to as Australoid were settling in Southeast Asia including across the Indonesian archipelago. They remained the only humans in the region until the next major migration wave which occurred around 4,000 to 5,000 years ago. This new group were the Austronesians. Their ancestral homeland was in Taiwan. They spoke a proto- version of present day Austronesian languages. They brought with them a culture which included mastery of metal processing, sailing and seafaring, and agriculture. This event has been called *out of Taiwan*. Around the time the Austronesians arrived in the Indonesian archipelago, their predecessors, who spoke

a number of Papuan languages, had been there for a very long time, tens of thousands of years. The Australoid people would go on to inhabit the area in the east now known as Melanesia and disappear from the rest of the region but at the time of the arrival of the Austronesians they were widely dispersed across the entire archipelago including the western part. Their descendants no longer occupy these areas, and have been replaced by the Austronesians. So the question is, what happened during the long period before the Austronesians arrived? Were there other migratory groups with different genetic characteristics? What happened when Austronesian and Australoid populations were in contact? Genetic research conducted by the Eijkman Institute for Molecular Biology since 1996 has helped to build a picture that can provide some answers to these questions about Indonesian population genetics.

Genetic Mapping in Indonesia

Studies of genetic diversity in Indonesia were primarily developed because of the urgent requirement to understand population structures in this area related to the management of tropical diseases which were the focus of our initial research. The research activities that began in 1996 also focused on the susceptibility and sensitivity of these populations toward certain infectious diseases, in addition to lifestyle diseases such as *diabetes mellitus* or metabolic syndromes. In order to understand the link between diseases and genetics, we need data about the genome diversity of the Indonesian population. Susceptibility or resistance to particular diseases varies from one ethnic group to another. But at that time, no data was available on genomic diversity structures.

The absence of such data was very surprising, considering Indonesia is a nation with a large population made up of a diverse range of ethno-linguistic groups located in an area stretching across Asia and the Pacific. There were many factors underlying this, one of them being difficulty of access related to the large number of languages in the archipelago, and also because at the time nobody knew how to obtain this data. However, because of the importance of the data, it was decided to start a long-term project to map the population genetic structure of the Indonesian people. The decision to do this was made based on at least two considerations. First of all, there little in the way of information about the population structure of the Southeast Asian archipelago, and this was especially the case in Indonesia. The studies that did exist focused on the Southeast Asia mainland and the Pacific. Secondly, it was known that management of genetic diseases connected to endemic malaria such as thalassemia and ovalocytosis were very diverse and ethnic-specific (Veenemans et al., 2011).

The Indonesian archipelago stretches nearly 5,000 km from the west to the east and one estimate suggests there may be as many as 700 languages. The majority of the languages belong to the Austronesian language family which occupies an area from Madagascar in the west to Easter Island (Rapa Nui) in the east of the Pacific Ocean. Within the Austronesian language family, there are branches. The Western-Malayo-Polynesian (WMP) branch is found in the west of Indonesia and the Philippines. the Central-Malayo-Polynesian (CMP) branch is found in the southern part of the Moluccas and Nusa Tenggara (Bellwood, 1997, Cribb, 2000). The South Halmahera West Papua New Guinea (WHWPNG) branch languages are spoken in the northern part of Maluku. Papuan languages are found in parts of the east of East Nusa Tenggara and North Maluku.

West Papua alone has a remarkable diversity of languages, with around 250 languages most of them spoken by only a few thousand or less. The languages can be divided into four language sub-groups, West Papuan, East Bird's Head, Geelvink Bay, and Trans-New Guinea. Several populations speaking Austronesian languages are also found in the Papuan coastal areas, notably in the northwest (Bellwood, 1997, Cribb, 2000). Language diversity contributes to variations in cultural characteristics, and may also reflect genomic diversity.

Attention to detail with all aspects of the research methodology started with consideration of how to ensure a high-quality sample collection that would accurately represent the dimensions of diversity among the Indonesian population.

Firstly, the possibility of bias because of sample collection from same location was avoided. Secondly, on all fieldwork visits the expedition team always included researchers with medical training or local medical officers who spoke the local languages in order to reduce misunderstandings and to help obtain informed consent. Detailed questionnaires were also used to identify cases of marriage with different ethnic groups over three generations, both from maternal and paternal sides. Third, the sampling strategy also included historical notes about events that would have had the potential to alter the original population structure such as war or government transmigration programs (Marzuki et al., 2003).

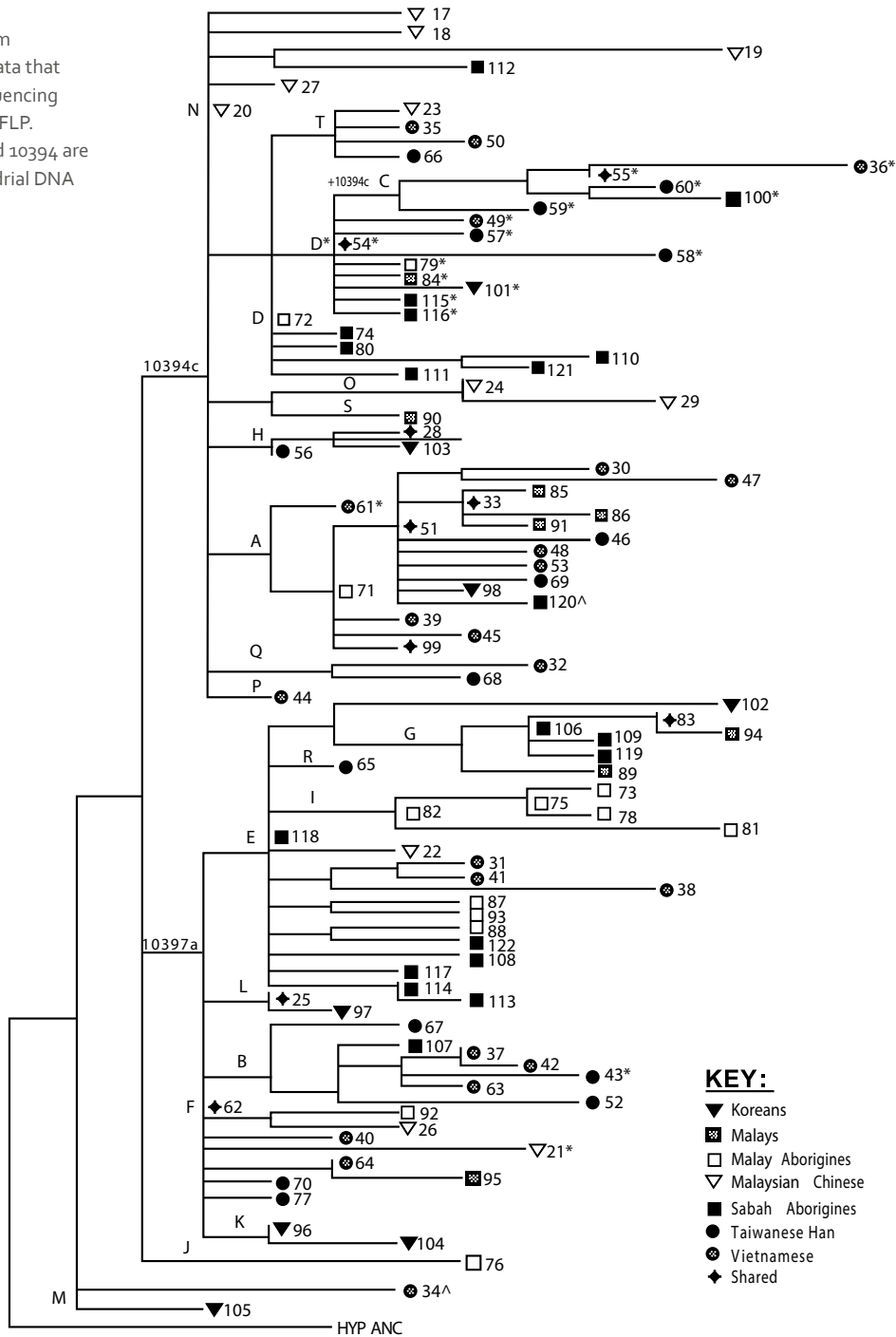
At the present time, DNA samples have been collected from approximately 6,000 individuals from more than 80 populations across the Indonesian archipelago. Sequences of mtDNA HVR1 have been obtained from more than 3,500 individuals. In the initial phase of the study, we found 474 haplotypes from the D-loop area from a total of 780 samples and they showed a certain level of difference between individuals. This demonstrates that Indonesia has haplotype diversity since almost half of the populations analyzed

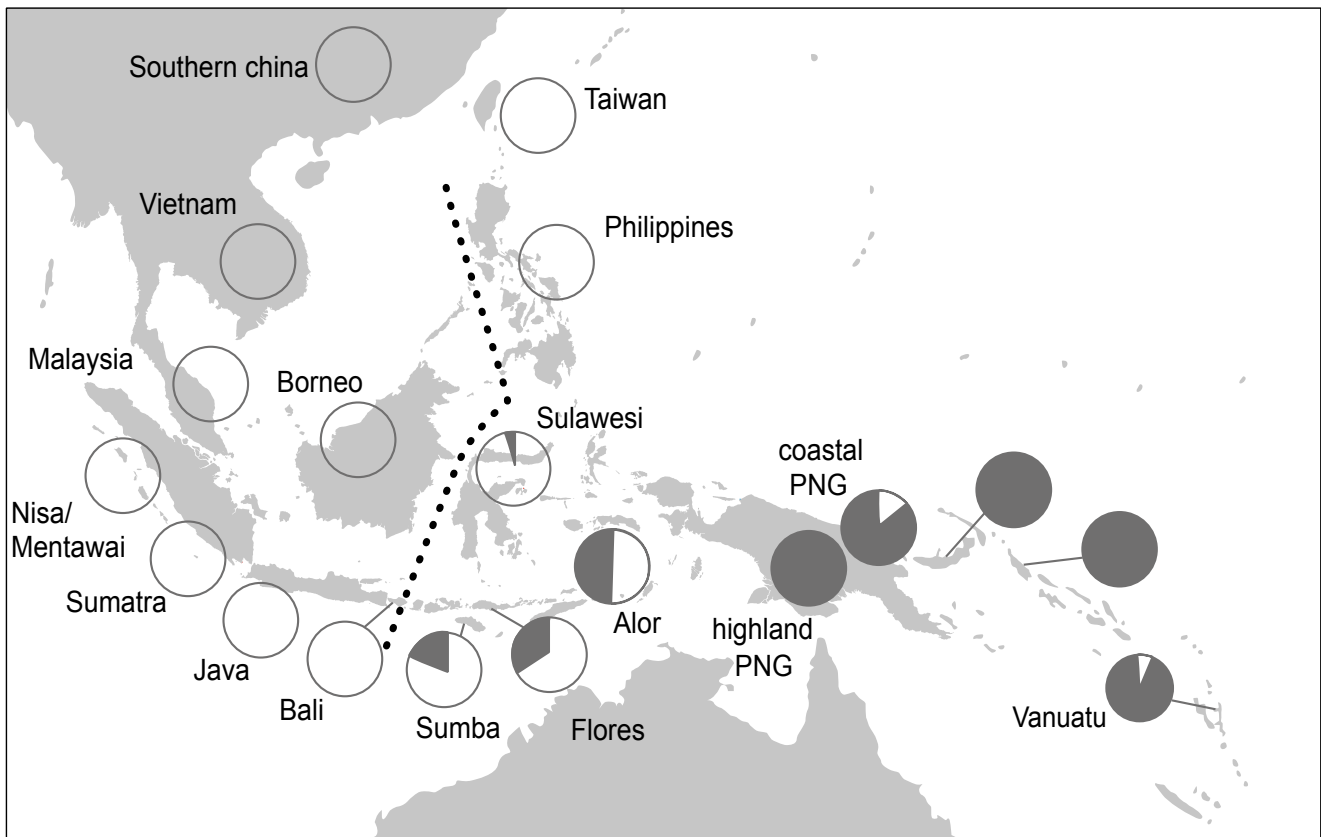
show distinct haplotypes. The other marker used for mitochondrial DNA analysis is the presence or absence a single base variation on the coding genes called Single Nucleotide Polymorphism (SNP). Another important population-specific marker is mtDNA deletion in the form of missing nine base pairs of DNA in the mtDNA. These markers found on the mtDNA increase the level of differentiation between individuals as well as between populations. For population genetic studies, a large data bank is needed because mtDNA does not experience recombination which means a particular mtDNA sequence or haplotype is treated as a single locus. The larger the number of unrelated individuals in the database, the more meaningful this is in the statistical calculations.

The genetic structure of the Indonesian people is better understood if placed in the context of the genetic map of Asia. According to Cann *et al.* (1987), all Asian mtDNA is divided into two macro haplogroups. This division is based on the presence or absence of SNP at nucleotide/base 10394 which also gives the branching of European mtDNA. In addition, every Asian mtDNA also has SNP at nucleotide 10397. The macro haplogroup which determined based on SNP₁₀₃₉₄ and SNP₁₀₃₉₇ is called macro haplogroup M. The constant relationship between these two SNPs (10394 and 10397) in Asia shows that 10397 might come from mtDNA at the SNP₁₀₃₉₄ site when women migrated from Africa to Asia. Besides the Asian mtDNA branching, there is also another type of haplogroup such as haplogroup A which has SNP₆₆₃ and a haplogroup which is determined based on 9-bp deletion between the COII gene and tRNA^{Lys} as well as SNP₁₆₅₁₇.

As one of the genetic source of dispersal, Southern China is known to have been inhabited by the Liujiang people from around 30,000 years ago. Many anthropology data support Southern China as the origin of many ethnic populations in East Asia as well as the Pacific. The important role of Southern China to the Indonesian archipelago is that it is believed to be the ancestral homeland of the Austronesian-speaking people. These people, believed to have originated in Southern China left Taiwan around 6,000 years ago, and moved southward, eventually reaching the Indonesian archipelago (Bellwood, 2005, Diamond, 1988). From a study of the Daic population, it was found that several major haplogroups like B_{4a}, F_{1a}, M_{7b1}, B_{5a}, M_{7b}, M*, R_{9a}, and R_{9b} made up 48.8% of all the haplogroups (Li *et al.*, 2007).

Phylogenetic tree from Mitochondrial DNA data that is produced from sequencing methods using PCR-RFLP. Nucleotides 10397 and 10394 are a source of mitochondrial DNA found in Asia.





Above: Genetic mixing in the Indo-Pacific region. The pie charts show the proportions of DNA in different present day populations which originated in two main ancestral populations, one from Taiwan (white) and another which arrived much earlier taking a route through South Asia (dark grey). The dark grey component is related to Papuan and Melanesian populations, but the proportion varies in different geographical areas. The Wallace line is shown with a dashed line (Cox M.P. et al. 2010).

In Southeast Asia, the major haplogroups are M, B, E, F, and G¹. Haplogroup F is the major haplogroup in parts of mainland Southeast Asia such as Vietnam (32%) and peninsular Malaysia (21%), but frequencies are lower in Korea and Tibet (15%), and not found in the Siberian population. Haplogroup B gives a distribution more commonly found in coastal Asia and Pacific islands, but is not found in Siberia, Central Asia, or America (Torroni et al., 1993). These haplogroups are described as Asian and American haplogroups based on the presence of polymorphism on the D-loop control region. When D-loop polymorphism and mtDNA haplogroup data are combined, it produces higher levels of discrimination among individuals. For instance, haplogroup A has variance T16362C, G16169A, C16290T, C16223T; haplogroup B has variance T16217 and T16189C; haplogroup C has variance C16327T, T16298C, C16223T; while haplogroup D has variance T16362C and C16223T (Torroni et al., 1993). There are two groups on haplogroup M which have two SNP characterizations

¹ See <http://www.mitomap.org>.

on HVR1 namely 16362 and 16390. In the Indonesian archipelago, haplogroup M+16362 and M+16362 + 16390 are the major haplogroups of Wallacea populations found in Nusa Tenggara and Sulawesi.

Studies from almost two decades ago found the presence of three derivatives of the major mtDNA which was carried by the Oceania residents namely B4a, P, and Q in which the frequency is very high in the Indo Pacific area. The derivative of B4a is not found in the highland or inland areas of Papua but is detected in the coastal regions of northern Papua, in the Melanesian islands, and in Fiji (Tommaseo-Ponzetta et al., 2002). Apparently B4a is not found in West Papua (Betty et al., 1996) or Australia (Cox et al., 2007) either. This suggests, therefore, that B4a is linked to the dispersal of the Austronesian-speaking people to the Oceanic area during the mid-Holocene period. This is considering that these motifs were never recorded in the Papuan highlands where Trans-New Guinea (TNG) languages are spoken, but are found with extremely high frequency in Polynesia and mirror the distribution of the Austronesian language family.

A comprehensive illustration by Cox outlines the migration of mtDNA in Asia (Cox et al., 2007).

Population Structure in Indonesia

In research conducted over the last 15 years, we found that disease mutation is very closely-linked to population structure. For instance, the red blood cell disease called thalassemia occurs in populations living in areas where malaria is endemic, as a genetic mutation that offers protection against malaria.

Another example is the carrier frequency or mutation spectrum of the beta globin gene on β -thalassemia and HbE varies among different populations. The results of disease epidemiology surveillance studies done together with genetic diversity studies enable the development of directed diagnostic methods based on ethnicity hence simplifying disease management. The disease frequency can be reduced by doing a pre-natal diagnosis (Pramoonjago et al., 1999). As an illustration, thalassemia alpha disease is often found in Vanuatu in the Melanesian area and also in Papua New Guinea. Research in Indonesia suggested the genetic disorder is only found in the Papuan population in Timika (18.1%) and is not present in other cities studied such as Gayo in Aceh and in Sumba (Nurfitriani et al., 2014). These findings demonstrate the susceptibility of people with Papuan genetics to thalassemia alpha.

Opposite: Family tree and STRUCTURE analysis on 73 populations of Asian and non-Asian populations. The figure shows the population code, the sampling locations, ethnicity, and language. The left side is the language family tree. Southeast Asian islands are grouped into one cluster. The right-hand section shows the genetic mixing of each population (Hugo Pan-Asian SNP Consortium, 2009).

In addition to finding important data about the relationship between diseases and populations, our long-term genetic structure research also provides new insights into the population structures and the origins of the Indonesian people. Several initial findings exhibited that Indonesia consisted of admixtures from various genetic groups arriving in a number of waves. The diversity is allegedly due to the geological dynamics of land formation and the impact of global climate change in the past which caused sea levels to rise, in the process breaking up what was formerly a near continuous land mass into the present archipelagic state today. Up to 20,000 years ago, Java and Borneo islands were part of mainland Asia. This is called the Sunda Shelf and it was separated from the Sahul Shelf which was at the time a part of the Australian continent and Papua.

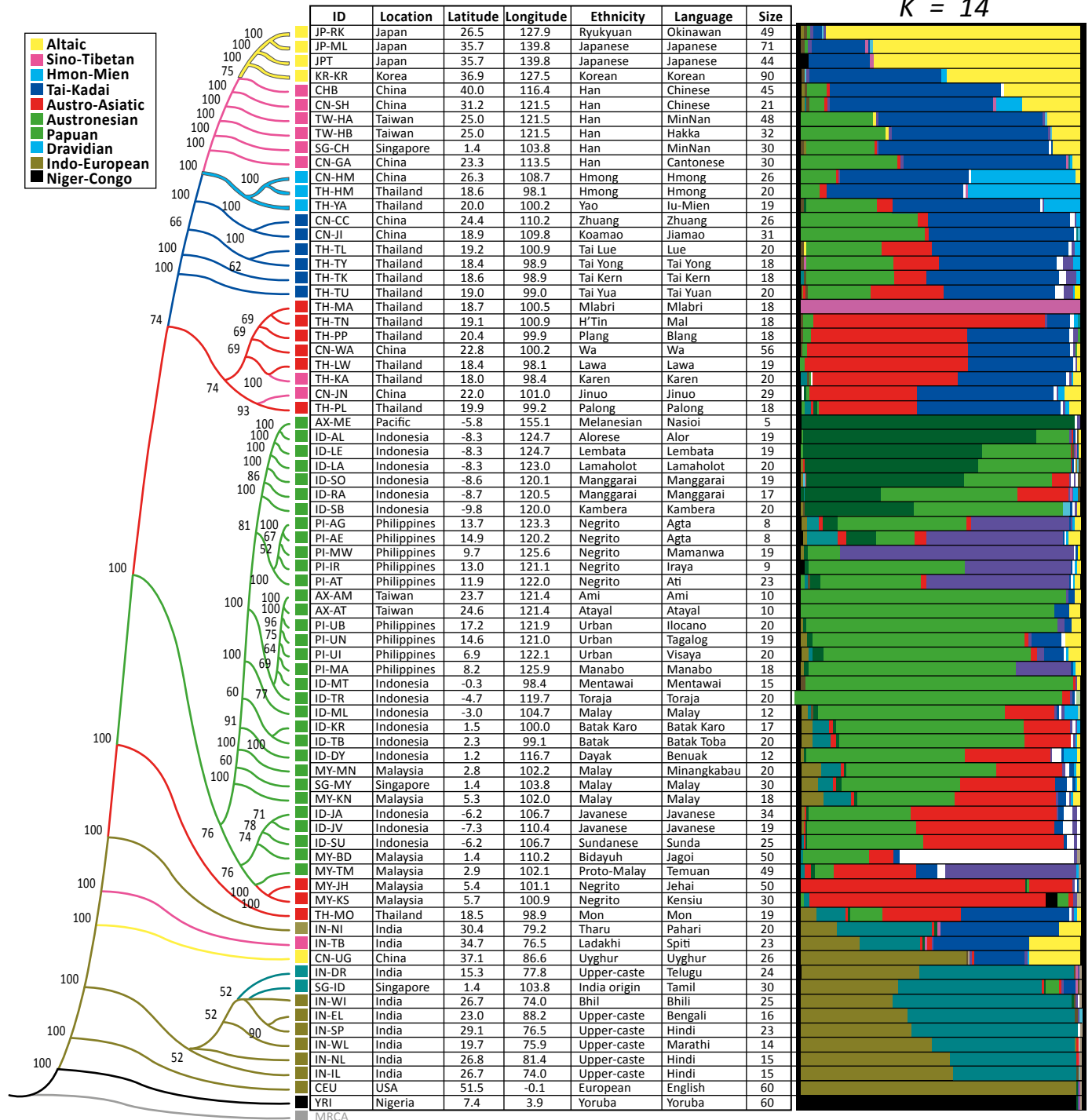
Between the two big land masses separated by sea lay the islands known as Wallacea. Wallacea includes the islands of Sulawesi, Lombok, Sumbawa, Flores, Sumba, Timor, Halmahera, Buru, Seram, and many smaller islands. In simple terms, Wallacea consisted of the island of Sulawesi, Nusa Tenggara, and the Moluccas. It can also be argued that both the Sunda Shelf and the Sahul Shelf, at the end of glacial era around 18,000 years ago, formed a range of island which is an integral part of Indonesia in the present. The impact of climate and environmental change happened in the past must be considered in order to understand the characteristics of modern populations inhabiting the archipelago in the present time. In addition, we should note that Indonesian archipelago has been a favored destination of human migrations since the distant past (Geertz, 1963).

The first wave of migration of early modern humans reached Indonesia around 60,000 years ago. They had come along the coastal zones of Africa, India, and then the Malay Peninsula down to the Indonesian archipelago. These first migrant groups were the ones whose present day descendants are the speakers of Papuan languages. Although people of Papuan appearance are mostly found in the eastern region of Indonesia today, their genetic traces can be found to different degrees in the general population throughout the entire archipelago. The percentage is highest in the east, and gets smaller the further west you go. This trend line is clear, but it conceals a more complex picture.

A detailed description of the variation in percentages of genetic lines and their admixtures in Asia, including Indonesia has been produced using genome analysis. The analysis is based on methods used to study the details of population structures in Europe and their intercontinental mapping.

This approach was employed to map the populations in Southeast Asia and East Asia using a Genechip filled with 50,000 SNPs. The research was a cooperative effort supported

K = 14



by researchers from nine Asian countries. The data was sampled from 1928 individuals from 73 Asian populations. Data from two non-Asian populations was obtained from Hapmap Asia. The individuals in the population sample represented speakers of ten major world language families: Altaic, Tai-Kadai/Sino Tibetan, Hmong-Mien, Austro-Asiatic, west Negrito, east Negrito, Papuan, Austronesian, Dravidian, and Indo-European.

When the kinship tree was constructed using the STRUCTURE method (Rosenberg et al., 2002), we could see that the Austronesian-speaking individuals clustered with those in the East Asian populations. This suggests a relationship which followed advancements in agricultural technology supported by findings from linguistics and archaeology. By using Frappe program analysis to observe the ancestral genetic background of every individual in the study, the result was similar to that generated through the STRUCTURE analysis.

Samples from Indonesia were chosen to represent the broad range of ethnolinguistic groups. They consisted of speaker populations from Alor, Lembata, Lamaholot, Manggarai, Kambera, Mentawai, Toraja, Riau Malay, Batak Karo Malay, Toba Batak, Benuaq Dayak, Javanese, and Sundanese. The results showed that all Indonesia populations were grouped in the Austronesian language speaking cluster as were populations from Malaysia and the Philippines. When we observed the STRUCTURE analysis with $K=14$, almost all the populations had genetic admixtures as shown on Figure 6b. Although Melanesian data obtained from Nasio showed almost one hundred percent Papuan genes, the Alor population had an admixture with Austronesian genes though in much smaller quantities. A beyond expectation discovery was the finding of non-Austronesian speaking genes or Papuan with gradually higher percentage of Austronesian genes were found in populations from Kambera in east Sumba, Manggarai in west Flores, Lamoholot in east Flores, Lembata, and Alor. These Papuan genes are the markers for the initial *Out of Africa* migration. These groups of people with Papuan genes are the ones who are aligned with the geopolitical concept of Melanesia at present. However, genetically, individual populations analysed from these geographical areas were not solely Papuan, but had admixtures of two or more genes. Significantly, these groups who refer to themselves as Melanesian do not have a single definitive genetic characteristic. Genetic admixture happening over extremely long periods of time has resulted in a population which is mixed to some extent.

The next big migratory wave toward Indonesia was the arrival of the Austronesian about 5,000 years ago. These were people who spoke an ancestral form of the Austronesian family of languages and who originated in Taiwan. The arrival of the Austronesians is believed to have significantly changed population structures in Southeast Asia, including

the Indonesian archipelago. The presence of the Austronesians is known from the archaeological evidence. Austronesians brought with them new cultural practices and technologies and these came into contact with the Papuans. The most striking evidence of their impact however is the present day wide spread of Austronesian languages which are found throughout the area, essentially replacing Papuan languages except for areas in the east. The present day dominance of Austronesian languages suggests to early researchers that the arrival of the Austronesians resulted in the replacement or displacement of Papuans.

The migratory model for the Austronesian expansion is often described as the “express train” model, because of the pace and extent of the expansion from Taiwan to Polynesia with almost no admixture happening to the Austronesian population during the journey.

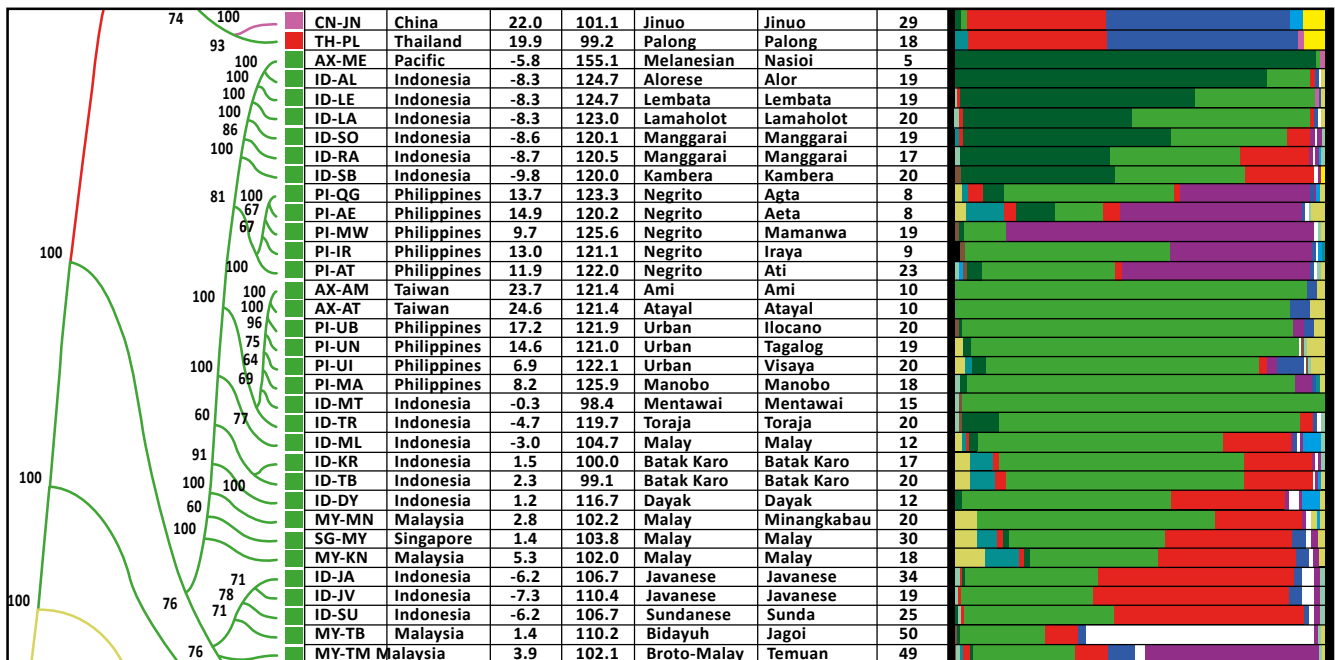
However, genetic studies have provided evidence that makes the Austronesian “express train” model implausible. The migration of Austronesian-speaking people is not likely to have happened in a single wave. Their expansion was not as fast as expected, and neither was it a continuous journey but, rather, sporadic, as groups settled for some time, and then at some point continued their migration. Most of the genetic studies support a slower expansion, where these Austronesian migrants produced sex-biased admixtures between Asian ancestor migrants with the Melanesian populations who were in contact with populations of Polynesian origin.

By using data from the Pan-Asian Human Genome Organisation (HUGO) database along with several mainland Southeast Asia populations, Jinam *et al.* (2012) built on the Southeast Asia study of evolution history and proposed their “early train” model. They added some Austronesian language family groups such as Bidayuh, Selatar, Jehai, and Temuan to the autosomal genetic marker analysis conducted earlier and found very high frequencies of the mtDNA haplogroup in the Bidayuh, Selatar, and Temuan populations. These came from mainland Asia around 30,000 to 10,000 years ago. Interestingly, “Out of Taiwan” markers such as B₄1a and M7c3c had a very low presence in those three populations. In addition, markers like Y₂, D₅, M7b₃, F₃, and F₄ which follow the Austronesian distribution pattern out from Taiwan were not found (Underhill and Kivisild, 2007). This could be due to the influence of women from populations already present at that time and not because of replacement. Furthermore, it was found that the haplogroup markers from part of Indochina and southern China such as M₂1a, N₉a6, N₂1, N₂2, and F₁a’c made up approximately 60% of the mtDNA derivatives. None of these haplogroups were found in populations from Taiwan and the haplogroup ages were estimated to be around 30,000 to 10,000 years ago putting them in the late Pleistocene and early Holocene era. The results of our research

using Y-chromosome suggested the presence of a contribution from mainland Asia in the Paleolithic (30,000-15,000 years ago). Other supporting data includes genetic analysis from pets or domesticated animals such as pigs (Larson et al., 2007) and dogs (Oskarsson et al., 2012) which would have followed humans on their migration. Both researchers concurred on the presence of livestock migration accompanying humans from mainland Asia via the Sunda Shelf towards the Pacific. The findings of various researches therefore support the idea that the “early train” migration wave is indeed part of a more detailed migration history in contrast to the other two broadly-accepted migration wave hypotheses.

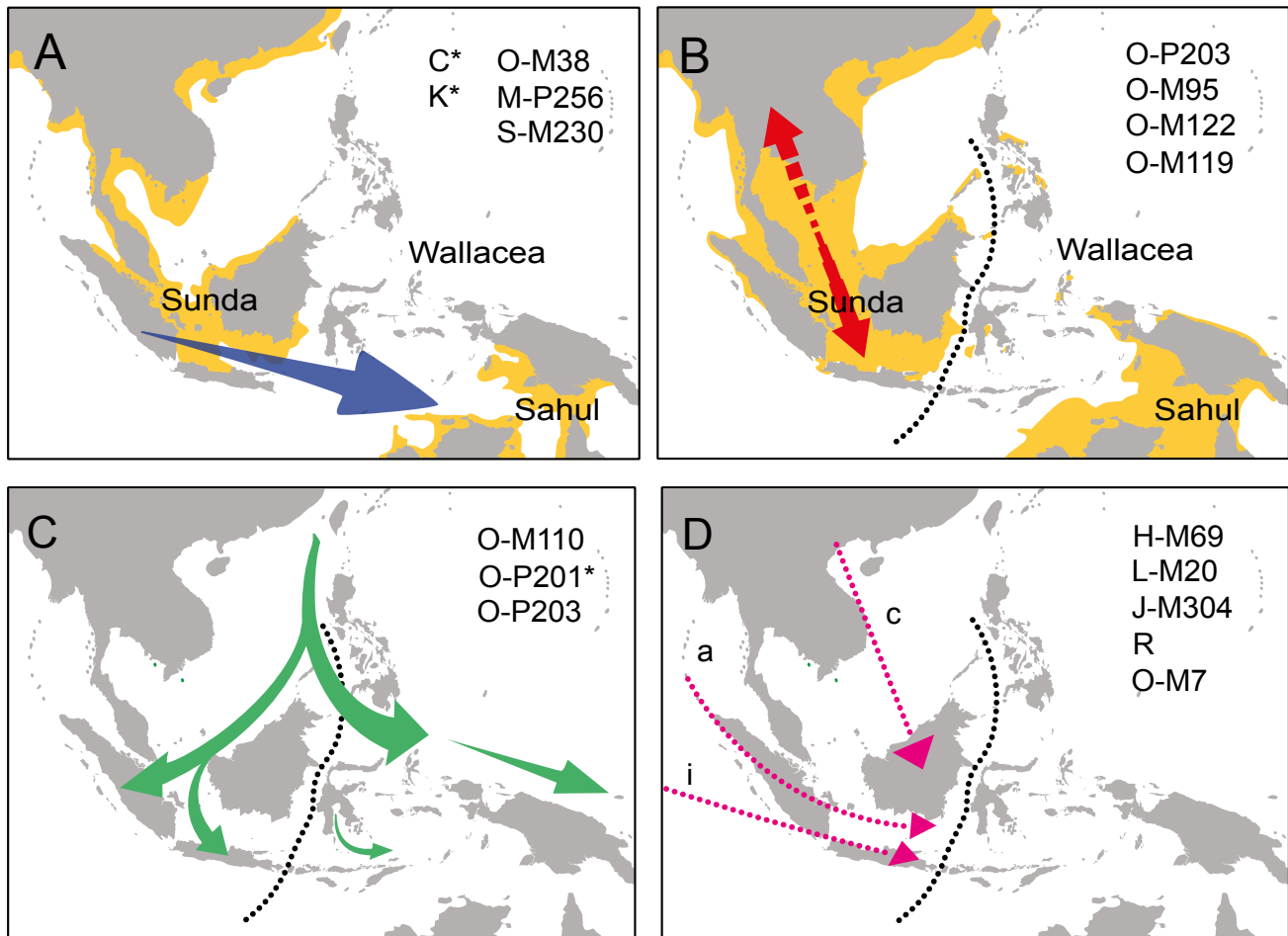
Our research lends further support to the theory that in the period between the first migrants’ arrival (*Out of Africa*) and the Austronesian migrations (*Out of Taiwan*), there was another intensive migration wave from mainland Asia to Indonesian archipelago (Karafet et al., 2010, Underhill and Kivisild, 2007). This group is known as Austroasiatic. They came from Central Asia through Vietnam and Cambodia, then went south via the Malay Peninsula to Indonesia which was still part of Sunda Shelf at that time. Several recent studies based on Y-chromosome and mitochondrial DNA analysis from populations in the Southeast Asian archipelago have confirmed the presence of early migrations from mainland Asia

Below: Family tree and analysis using STRUCTURE for 73 Asian and non-Asian populations. The figure shows the section of the family tree for Austronesian and Papuan languages (green) (Hugo Pan-Asian SNP Consortium, 2009)



between the late Pleistocene and early Holocene. This finding contradicts the classic theory which argues there were only two human migration waves to the Indonesian archipelago Out of Africa and Out of Taiwan. Austroasiatic genetic traces in Indonesia are highest in Javanese and Sundanese populations, gradually decreasing in percentage in Sundanese, Malay (coastal Sumatra), Dayak Benuaq, Minangkabau, Batak Karo, and Batak Toba, and only small traces found in Toraja. The percentage of Austroasiatic markers decreases significantly towards the eastern part of Indonesia. The easternmost island where Austroasiatic genetic traces can still be found is in Manggarai, Flores. In the east of Sumba Island there is almost no trace found. Although such Austroasiatic traces have confirmed the presence of Asiatic populations, when they arrived in those places has yet to be answered because no dating has been done (HUGO Pan-Asian SNP Consortium, 2009). Nevertheless, it is fairly certain that they arrived far earlier than the Austronesian-speaking groups. The Austroasiatic arrival waves very likely continued until the end of the ice age in the late Pleistocene at around 11,000 years ago, which led to the sea level rise that transformed the Sunda shelf into the present day archipelagic pattern of Indonesia.

The most recent migrations occurred within the last two millennia as the result of trade interaction with Chinese merchants, the introduction of Indian ideas and culture among some populations from trading religion, as well as the introduction of Islam and Christianity (Bellwood, 1997, Cribb, 2000). These migratory waves have left traces not only in culture, but also in genetics (Figure 8) (Karafet et al., 2010). Trading with China began early in the first century but apparently was limited to coastal areas following the maritime trading routes of the time. The influence of Indian culture, which began in the fifth century, besides from interactions due to trading also saw the introduction of Hinduism and Buddhism. The foundation of a number of empires in Java and of Sriwijaya in Sumatra were the legacy of these interactions. The influence of Islam and Christianity became significant in the 15th and 16th centuries, shortly after the European colonization took hold. The arrival of the new cultures also influenced the Indo-Pacific area. Some genetic traces, especially found in mitochondrial DNA, reflected this new contact with Europeans. The ones that were more cosmopolitan estimated by Y-chromosome also showed contributions of traces from China and India.



Above: Four stage model of gradual colonizations in Indonesia: (A) The first wave of colonization 40,000-50,000 years ago, (B) the contribution of the Asian mainland Paleolithic populations, (C) the Austronesian expansion, and (D) migrations during historical times. Halopgroups and paragroups for each stage are shown. The dashed line is the Wallace line. The dotted red lines in (D) show historically recent migrations from India (i), Arabia (a), and China (c). (Karafet et al. 2010)

The Ancestors of the Melanesians

At the time when our ancestors, the first modern humans, emerged in Africa approximately 200,000 years ago, and later when they had dispersed in Eurasia, they were not the only human-like species there. There were also other archaic human-like creatures (hominins) living there. One of these hominins was the Neanderthal. Based on skeleton morphology, the Neanderthals had been living there since 230 thousand years ago but disappeared at around 30,000 years ago. The DNA sequences from the hominin were complementary to

the morphological finding and would be very useful for understanding the link between modern human and the hominins. Krause et al. (2007) and Green et al. (2008), from the Max Planck Institute for Evolutionary Anthropology, reported the mtDNA sequences of East Asian and Siberian Neanderthals. By using a highly sensitive technology, they successfully conducted a complete DNA sequencing. One of the hominins has the sequence of a Neanderthal found in the Altai mountains in southern Siberia. The same group also determined the complete mtDNA from a chunk of finger bone of a young hominin found in the Denisovan cave in Siberia (Reich et al., 2010). The finger bone was estimated to be 50,000 to 30,000 years old. When examining the population history of Neanderthals, Denisovans, and modern humans, recently it was shown that the ancestors of the New Guinea and Bougainville islanders inherited 4-6% of Denisovan genetic material. This discovery adds to our understanding of the early migrations to the Southeast Asian islands and Oceania as well giving information on the number of ancient settlements migration waves. Denisovan genetic material in Southeast Asia is easy to distinguish because it has many points of difference with that of modern human DNA. Therefore, the presence or absence of Denisovan genetic material in certain populations could help us better understand the human migration history in Indonesia and Oceania. David Reich *et al.* (2011) conducted a follow-up study to the hominin discovery in order to obtain information about genetic admixtures of hominins and modern human. For this purpose, 33 populations from Asia and Oceania were analyzed. It included nine Indonesian populations from East Nusa Tenggara (Alor, Flores, Rote, and Timor), Moluccas (Hiri and Ternate), Borneo, and Sumatra (Besemah and Semende). Meanwhile Oceanic populations included highland New Guinea, Fiji, and Polynesia (the Cook Islands, Futuna, Niue, Samoa, Tokelau, Tonga, and Tuvalu).

The picture presented here of the initial arrival of modern human to Southeast Asia and Oceania out of Africa has been widely accepted, however the advancement of technology and bioinformatics and the development of algorithms have led to a new understanding about the abundant number of modern human migration waves which have contribute towards the current settlement picture. Archaeological research supports the theory of settlement via a single wave via the southern coast of Asia and also multiple waves coming from East Asia. The single wave theory from mitochondrial DNA, strengthened by the largest data about Asia which was built based on studies on 73 populations using 55,000 SNP, was actually non exclusive. Studies using SNP with more coverage on the human genome displayed the presence of two migration waves, as well as the findings

of a *Helicobacter pylori* study, a type of microbe living in human gastrointestinal tract (Moodley et al., 2009).

The latest finding showing that the New Guinea and Bougainville Islands populations received 4-6% genetic material from Denisovan, a hominin co-inhabiting the Europe with modern human around 30,000 years ago (Reich et al., 2010), provided additional proof about the number of migration waves to Southeast Asia. Denisovan genetic material is easy to identify because it is very different from modern human. Reich *et al.* (2011) then added 33 populations from Asia and Oceania because the earlier research used a limited number of population samples. The additional populations include Australian Aboriginal, near Oceanic, Polynesian, Fiji, eastern Indonesian and Mamanwa a Negrito group from the Philippines. All had Denisovan genetic material.

However, the finding is different in East Asia, and western Indonesia. The Jehai people (Negrito from Malaysia) and Onge (Negrito from Andaman island) did not have Denisovan DNA. It was concluded that the geneflow of Denisovan genes occurred in the main ancestor of the New Guinea people, Australian Aboriginal, and Mamanwa but did not appear in the Jehai and Onge populations. This means that East Asia populations could not have been present in Southeast Asia at the time the geneflow occurred. This suggests that the multiple wave settlement theory is correct. The first wave contributed to the ancestor of the Negrito population in Malaysia as well as the Philippines, New Guineas, and Aboriginal Australia, while the second wave contributed to the ancestor of the East Asian and Indonesian populations. Data obtained from this study supported previous findings and is consistent with the single distribution Out of Africa theory via the southern route followed its spreading to East Asia and South Asia.

The Mapping of Melanesia in the Indonesian Archipelago

After observing the population structure and human migration history in Indonesia and Melanesia in its regional context, we can now map the position of Melanesia in the archipelago. If we refer to the initial definition that Melanesia is a geographical area inhabited by "dark skinned people" with "curly hair" the area would include Papua, the Moluccas, North Moluccas, and part of East Nusa Tenggara. Many extensive genetic studies in these areas showed the presence of genetic admixture, which indicates that Melanesia is not a single genetic entity.

For example, East Nusa Tenggara is known to have very high language variation in comparison with other places in Southeast Asia. On these islands, there are Austronesian-

speaking people as well as non-Austronesian or Papuan-speaking people. Mona *et al.* (2007) studied populations from seven islands in East Nusa Tenggara (Adonara, Alor, Lembata, Flores, Solor, Pantar) and Timor Leste. Some of the villages in the study are part of the Central Malayo Polynesian language family but others belong to the Trans New Guinea language family. Linguistic and archaeological data indicate the presence of at least two migration waves influencing this eastern part area of Indonesia. Archaeological findings of modern humans living around 30,000 to 37,000 years ago (O'Connor *et al.*, 2002) were found in Timor Leste and also in north Moluccas (Bellwood, 1996). The age of the relatively new artifacts found in Flores was estimated at around 4,500-3,800 years ago. Artifacts of a similar age were found in Timor Leste dated at around 4,400-3,400 years old. Both were connected with the distribution of farmers and Austronesian-speaking people during the Neolithic era (Bellwood, 1997) and are thought to have arrived in eastern Indonesia via Sulawesi and maybe also the Moluccas rather than from the west through Java (Spriggs, 2003). The linguistic and archaeological evidence suggests there were two or more migration waves. It is also possible that there was an influx of Papuan-speaking people arriving before or around the same time as the Austronesia-speaking population. The study in East Nusa Tenggara was intended to answer several important questions: (a) the extent to which the very complex history of eastern Indonesia can be explained based on the genetic groupings of its residents, (b) what connection between genetics and language there may be, and (c) what influence the many migration waves had on the genetic grouping of present day populations.

In connection to the geographical origin and reconstruction of East Nusa Tenggara human history, 19 mtDNA haplogroups connected to the East Asia source and six haplogroups connected with a Melanesian origin (Q1, Q2, P1, P1e, P4a and R14) were found. Haplogroup P1 in eastern Indonesia which was attributed with a Melanesian origin, had a *Time Most Recent Common Ancestor (TMRCA)* or ancestral age estimated to be close to 53,814 years ago, which is older than the haplogroup age of ancestors in Melanesia (46,160 years ago). Haplogroup Q1 and Q2 were initially thought to come from Melanesia, but the data pointed to the source being from eastern Indonesia. The most convincing data was mtDNA Q1 with roughly 14.2% frequency and aged 48,089 years ago, notably older than a similar haplogroup found in Melanesia (34,578 years ago). The estimated ancestor age is possibly a marker for hunter-gatherer populations of the Pleistocene era who settled in East Nusa Tenggara and the islands of Papua. Likewise with the mtDNA Q2 which has a higher frequency than Q1, but later divided into two

branches, one was the ancestor of East Nusa Tenggara and the other one was possibly the ancestor of Australian Aboriginals.

On the other hand, by analyzing 35 binary genetic markers of the Y-chromosome, 14 types of haplogroups were identified. Seven of these were from Melanesia based on previous studies (C-M38*, C-M208, M-M4*, M-P34, S-M230*, S-M254, and K-M9*), while the other came from east Asia (O-M122*, O-M134, O-M119, O-M175, NO-M214 dan C-RPS4Y*). In general, the proportion of Melanesian paternal and maternal inheritance is 63.1% and 20%. This is 60% and 20.5% in the Papuan group and 63.7% and 17.5% in the Austronesian-speaking group. The proportion frequency varies in different populations. For example, the frequency of a Melanesian Y-chromosome haplogroup was found to be 45.2% in the Austronesian-speaking population in Lembata, 100% in Alor, and 84.4% in Adonara. Meanwhile, the frequency of the mtDNA haplogroup was 0% in non-Austronesian speaking in Timor Leste and 70% in Austronesian-speaking groups in Pantar. The presence of Asian and Melanesian haplogroups in the Y-chromosome and mtDNA of East Nusa Tenggara populations was illustrated in an analysis which was aimed to examine the proximity and grouping between populations. For the Y-chromosome, East Nusa Tenggara was grouped with population of the Melanesian islands who spoke Austronesian due to the high component of Melanesian except in the Pantar population which was grouped together with the Southeast Asian group due to the high number of Asian haplogroups on them.

Based on the findings of these genetic structure studies, the migration history of East Nusa Tenggara now appears to be not as simple as expected. This is due to several components illustrating the contributions of Austronesian-speaking people from east Asia as well as the non-Austronesian Papuan-speaking populations. It was also found that the component with ancient migration traces were also found in Australian Aboriginals. Therefore, genetically, East Nusa Tenggara is something of a melting pot and is an interesting example of complex genetic admixture occurring over thousands of years.

Other than East Nusa Tenggara, the admixture traces can also be seen on the other Melanesian area, such as North Moluccas Islands. This area is an important spot of human journey routes along Indo-Pacific. Archaeological evidence confirms that this area has been inhabited by humans since 32,500 years ago and which is possibly proof of the first migration wave Out of Africa (O'Connor et al., 2002). Meanwhile, the arrival of Austronesian-speaking people in this region was supported by evidence of ceramic artifacts from 3,500 years ago. Languages can be found in North Moluccas which characterize the Pleistocene era colonization and the subsequent migration. Geographically, most of the

languages (18 languages) are West Papuan languages found in the Bird's Head Peninsula. Additionally, nine Austronesian languages were also found in Halmahera, east Makian, and Gebe. Groups speaking languages in the two main language families in the North Moluccas are in a language contact zone and live side by side.

There are two models proposed for the populations in this area. They are the *Replacement model* and the *Adoption model*. The first model assumes a process where Papuan-speaking populations shift to speaking Austronesian languages and these replace the Papuan languages. Despite the occurrence of mixed marriages, this model suggests that populations who represent both groups would still have different genetic backgrounds. Meanwhile, the *Adoption model* assumes that the Papuan population adopted Austronesian languages because of cultural contact, but without inter-marriages. In this model, there would be no meaningful change in genetic composition of the populations previously settled in north Moluccas. This means no traces of admixture with Austronesian should be found. In order to test these hypotheses, the goal is to estimate the total admixture of Asian genes on earlier populations and to investigate groups with different languages would have different genetics as well.

In order to examine the presence of Austronesian ancestors admixture traces, Wilder *et al.* (2011) conducted a genotype analysis using Ancestor Informative Markers (AM, an ancestor marker is comprised of 27 SNP, 11 on the autosome and 16 on X-chromosome). A total of 340 individuals from eleven ethno-linguistic groups were chosen for this purpose. They included Papuan-speaking (Galela, Jailolo, Makian, Ternate, Tidore, and Tobelo) and Austronesian-speaking (Kayoa, Maba, Patani, Sanan, and Sawai) populations. The results show an allele frequency which confirms the contributions of both fairly strong genetic backgrounds in the North Moluccas, while the fraction of Asian admixture was 67%. This fraction is seen to be higher on the X-chromosome loci, indicating a female bias during the admixture process. In the regional context, this result was similar with other populations that have been analyzed such as Sumba, Flores, and Alor. The analysis on other genetic markers proposes the presence of a genetic breakpoint in East Nusa Tenggara, as suggested in Cox *et al.* (2007) and Karafet *et al.* (2010).

Our previous results illustrate the separation of east and west of Asian influence on the islands of Southeast Asia. The separation, if examined closely, actually follows the breakpoint, occurring on morphological phenotypes observed by Alfred R. Wallace who described the phenotypic division as a line which separated the Malays and the Papuans. This line was then moved eastwards from the geographical border line for fauna and flora. In the North Moluccas, Wallace saw that individuals inhabiting the area exhibited a combination

of Papuan and Malay characteristics. This study shows just such an admixture. Although the contribution of Asian genetic material in the Moluccas population is apparent, no link between language and genetic factors appeared in the populations that we studied. Both Austronesian-speaking and Papuan-speaking groups had admixed genetic material and no genetic differentiation at all. Based on this finding, we conclude that neither the *Adoption model* nor the *Replacement model* can explain this. The picture we observed was a highly extensive Asian admixture process with various language replacements. This process would have occurred sporadically and replacement only happened in several places such as in the southern or eastern parts of Halmahera. Apparently, different languages do not always represent a gene flow barrier in this area, a pattern which was also observed in eastern Indonesia and in the Melanesia area.

Meanwhile in Papua, a place where all this time it was believed to only have been inhabited by Papuan-speaking people, we found areas where genetic admixture had occurred. Indeed, haplotype P and Q which are designated as Papuan mitochondrial markers and haplotype C-M208, C-M38, and M-P14 as well as other haplotypes of Papuan Y-chromosome markers are almost exclusively found in the Papuan highlands. However, in coastal areas the presence of Papuan and Austronesian genetic admixture is also found. The high percentage of Papuan mitochondrial and Y-chromosome genetic markers composition was also found on the island of Alor. The admixture occurs throughout eastern Indonesia and the Melanesia area, with differing percentages and we therefore conclude that the other theories can presumably be ignored.

Conclusion

Our comprehensive research using mitochondrial DNA, which concerns the maternal line, shows that Indonesian diversity is influenced by two significant migratory movements. The latter, the arrival of people from mainland Asia with their agricultural technology had been accelerated by the rise of sea levels and. Research on the Y-chromosome gives a similar picture, but also produces a more complex, multifaceted picture of communities in contact in various places in Indonesia.

In order to get a picture of the history of female migrations, we tried to integrate the human migration which occurred around 50,000 years ago and contributed to Indonesian genetic diversity. The approach was to analyze DNA of 2,740 individuals from 12 islands where six of them were from western Indonesia and the rest were from East Nusa Tenggara including Sumba, Flores, Lembata, Alor, Pantar, and Timor (Tumonggor et al., 2013). The

mitochondrial DNA sequences from all subjects showed very high diversity and pointed to the presence of intensive admixture between Austronesian-speaking and Papuan-speaking populations. The conclusions were reached by looking at the total number of polymorphic sites where site refers to bases position on DNA which has different nucleotides and occurs in several locations. In addition, this diversity was also illustrated by the number of haplotypes. A haplotype is analogous to a certain motif which is a collection of several unique bases obtained from the DNA sequencing. Haplotype determination is not conducted randomly but follows a well-established consensus in naming. The communities with highest variations were found in the eastern part of Indonesia (Sumba, Flores, Pantar, and Alor) where both Asian and Papuan genetic derivatives were observed.

To be able to reconstruct Indonesian human migration pattern, the huge environmental and geological changes' impact on the archipelago's inhabitants cannot be ignored. The archipelago's geographical identity as a cross roads for human migration is an important part of why Indonesia became a settlement location with highly diverse ethnicities, languages, and genetics. The history of Melanesia cannot be separate from Indonesia as its people's genetic makeup shows the same ancestral traces. Melanesia, as elsewhere in Indonesia, is inhabited by Austronesian-speaking and non-Austronesian-speaking people and this is reflected in the genetic background of its populations. Explaining this is a multi-disciplinary task. Anthropologists support numerous new algorithms in population genetics that illustrate unimpeded human society. Modern science has rejected studies based on the concept of 'race'. It looks at processes such as cultural change over time and emphasizes interregional contacts and interactions. By using population genetics, the natural borders in the Indo Pacific area, the Wallace bio-geographical line, and the line separating Near and Remote Oceania can finally be illuminated reliably.

Analysis using mtDNA and Y-chromosome genetic markers exhibits that genetic variation in Indonesia was shaped primarily by two migration processes, the movements of early humans due to the sea level change and the migration of populations with agricultural technology from mainland Asia to the Southeast Asian archipelago. The initial settlers of Indo Pacific were known to possess a particular mitochondrial genetic background (P and Q) which is owned to some extent as a Papuan genetic feature. These haplogroups are not found in the western part of the Southeast Asia archipelago. The analysis by Y-chromosome markers showed similar results.

Several human movements from mainland China are thought to have changed the dynamics of most of the Pacific, especially with the presence of Polynesian motifs which

connect Taiwan with Polynesia. The other important transition was the movement towards Melanesia from East Nusa Tenggara. Other genetic data developed later has been used to complete the information in order to reconstruct the Indonesian population consisting of the Austronesian and Papuan-speaking people. Multiple ancestry-informative markers from chromosomes are now used as a new approach in molecular anthropology. In the west, we can observe that Aboriginal Taiwan possesses 100% Asian ancestral markers, which are present in Melanesia but decreased to 20%, while in Polynesia the markers are at 80%. The autosomal variation from various Asian populations showed that the genetic decrease was strongly linked to both language and geography. The study also showed that the majority of the population showed evidence of admixture. This throws light on the very complex patterns of human movement. The presence of genetic ancestors of Asia and Papua together in eastern Indonesia also illustrates the impact of the Austronesian genetic expansion. The sign of movement towards the east from the admixture with Asian ancestors at 4,000-3,000 years ago was apparently in line with the spread of the Austronesian language.

The genetic study strongly supports the picture that at around 4,000 years ago people with Asian ancestors migrated towards the eastern part of Indonesia and then admixed with the Papuan-speaking people who already inhabited the area. The genetic evidence is supported by linguistic and archeological studies, and points to the presence of Papuan people in eastern Indonesia before the arrival of the Austronesians with the dispersal of Austronesian farmers to eastern Indonesia occurring later. This main gene flow from the west to the east did not erase the evidence of other small migrations though they only have had limited impacts generally. The latest genetic evidence demonstrates that genetic admixture (Austronesian and Papuan) has been going on for thousands of years. This indisputably leads us to conclude that any claim or perception of genetic discontinuity or substitutions is patently false and can be ignored.

Acknowledgment

The author would like to acknowledge Ahmad Arif who has read and gave input on the writing of this chapter. And also to Helena Suryadi, Gludhug Ariyo Purnomo, Chelzie Crenna Darussalam, Isabella Apriyana, Windy Joanmawanti and everyone who were involved in the project to complete this chapter. I would also like to express my gratitude to all researchers of Genome Diversity and Diseases of Eijkman Institute for Molecular Biology, who have been involved in designing the sampling strategy, collecting blood samples in difficult areas, and conducting the DNA analysis. The sample collections were also not possible without the assistance of colleagues from the local health agencies and also all volunteers from all across Indonesia who were very enthusiastic to be part of this study with one goal in mind, to find the origin of our ancestors.

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CHAPTER 3

Multamia RMT Lauder & Allan F. Lauder

Language Diversity and Endangerment in the Melanesian Cultural Area

Introduction

Language is a natural ability universal among all humans and over six thousand languages are spoken around the world. Language is acquired by children without conscious effort or instruction. The ability to use language in humans is based in our biology, and has evolved through evolution and sets us apart from other species (Bickerton, 1992, Jenkins, 2000, Smit, 2014). It pervades almost all aspects of our life and without it humanity wouldn't have developed civilization, religion, science and technology (Corballis, 2011, Vossler, 2014, Yu, 2013). Language is essential in all spheres of modern society, from the commonplace interactions of everyday life, to the complex analysis in science or decision making. It is reasonable, therefore, that the study of language can help us understand many aspects of people's lives (Jackson and Stockwell, 2011, Wardhaugh and Fuller, 2015).

Language offers a unique perspective on many aspects of human life. One of these is cultural values and world views. Such things, including views on morality and ethics, are recorded in different language forms, such as vocabulary, rhymes, folktales, myths, legends, and idioms. While global languages and the languages of powerful countries spread their influence widely, the local languages of countries and regions express local identity and cultural achievement. In some places in the world, the number and diversity of languages is great. Indonesia, situated in Southeast Asia, is the world's largest archipelagic state and is a country with very high linguistic diversity. A total of 719 languages are listed in Indonesia, making it the second after neighboring Papua New Guinea which has 851 languages (Lewis et al., 2015, Martí et al., 2005: 48).

This chapter looks at the language situation in Indonesia and the countries in the South West Pacific which are considered to be in the Melanesian area. In order to identify significant categories and features of languages in the region in a way that allows comparisons among the different countries, the chapter focuses on a small number of issues. The first is the question of how many languages there are and how many speakers

are there for all the languages in the region. The next question is whether the languages are related in any way, in particular whether they can be grouped into language families, and what the origins of these families were. The next question is on what the status of all of these languages are, whether they are used widely in society or not, and whether the number of speakers is dwindling, giving cause for concern about their future sustainability. Throughout, it should be possible to see whether languages are related or not to others in different countries and what kinds of dynamics exist when different languages come into contact with each other.

The language picture in Indonesia

With so many languages in Indonesia, the situation is complicated and we need a broad perspective to get an overview of some of its features. The way to do this is to define some broad language types with regard to their identity or function in society, and get an idea of the demographic distributions. All the languages in Indonesia can be categorized from a policy perspective into three main categories: (1) the Indonesian language, (2) regional, indigenous languages, and (3) foreign languages (Alwi and Sugono, 2000, Renandya, 2000: 115). These language categories have different functions in society. A national language like Indonesian is the national language, the language of unity, and the language of education, business, media and politics. Regional languages' function is as markers of identity and culture. The foreign languages' function is to provide access to knowledge for development. A linguistically diverse nation needs a national language as a unifying force and for economic efficiency. Indonesian is a language that has been developed for this purpose. It was based on bazaar Malay, one of the regional languages, and has been developing since independence.

Because of the regional languages, bilingualism and multilingualism is the norm. Indonesia is a country where many regional languages are in contact with each other. The development of Indonesian is closely linked to what happens with the regional languages. Census data tells us that Indonesian is not yet spoken by all Indonesian citizens. About 140 million Indonesians or around 55.51% of the population still speak one of the regional languages and have Indonesian as a second language. However, over the last three decades, and supported by government policy, a significant sized community of people

who speak Indonesian as their first language has been growing. The emergence of a native Indonesian speaking population can be explained in a number of ways:

1. In the first scenario, these Indonesian speakers are members of the younger generation whose parents came from different ethno-linguistic groups, so when choosing what language to use in the family, Indonesian became the main choice as opposed to using one or both of the parents' languages. In this case, the children would be exposed to Indonesian from the earliest age.
2. In the second scenario, they are members of the younger generation whose parents were from the same ethno-linguistic group and who lived in a large city. When choosing which language to use, Indonesian became the most attractive because it was the language used everywhere outside the home. The children would need it to communicate with neighbours, with friends and at school where it was the medium of instruction.
3. In the third scenario, they are members of the younger generation whose parents were from the same ethno-linguistic group and who lived in a large city. Indonesian becomes the preferred choice because of the choice of language to be used in the home. If a regional language is preferred, the dilemma of which one to use arises. Using Indonesian in the home gets around this problem and it is also useful outside the home.

At the last census, there were 22,800,000 native speakers of Bahasa Indonesia, 9.04% of the whole population. If you add this population of native speakers of Indonesian to the 140 million for whom it is a second language, after one of the regional languages, you get a total of 162.8 million Indonesian speakers (Lewis et al., 2015).

The size of speaker populations for the regional languages is not even and this means that this category contains languages which although all classified as regional languages are in fact very different in character and status from each other. The demographics for the regional languages consist of a small number of large languages, after which the remainder, a large number of languages, have varied speaker populations steadily dwindling from hundreds of thousands to near zero. A total of 719 languages have been recorded in Indonesia. Of these, the fourteen largest languages each have more than a million speakers. The speaker population sizes for these large languages is as follows: Javanese (84, 300,000), Sundanese (34,000,000), Malay (13,040,000), Batak (7,045,000),

Madurese (6,770,000), Minangkabau (5,530,000), Betawi (5,000,000), Buginese (5,000,000), Acehese (3,500,000), Balinese (3,330,000), Makassarese (2,130,000), Sasak (2,100,000), Lampungese (1,834,000), and Gorontalo (1,000,000) (Lewis et al., 2015). The total number of the speaker populations of these fourteen large languages is 174,579,000 people. This makes up approximately 70% of Indonesia's overall population of 255 million people projected in 2015. On Indonesia's population see, for example, Badan Perencanaan Pembangunan Nasional (BAPENAS) and Badan Pusat Statistik (BPS) (2013).

Geographically, the larger and smaller regional languages follow a geographical pattern of distribution with the larger languages in the west of the country, Sumatra, Java, Madura, Bali, Madura, western Nusa Tenggara and Sulawesi, and the smaller languages the east of Indonesia, Maluku, Papua and Western Papua.

Although bilingualism is widespread, there are still monolinguals who speak only one regional language. The number of these is 89.4 million which is 35.44% of the population. The trend is for younger Indonesians to have Indonesian as their first language, but they will still be bilingual with some ability in one or more regional languages. There are also a number of lingua francas, other than Indonesian, which are used to improve communication where there are a number of mutually unintelligible languages in one area.

Another perspective on language is its status in the sense of its relative vitality or its relative vulnerability to a downward trend in its speaker population. While there are 719 languages recorded in Indonesia, 13 of these no longer exist as they have become extinct. This leaves 706 living languages, languages which still have speakers. The fourteen largest languages, with populations of a million or more are mostly strong, but there are many among the smaller languages which are threatened.

Linguists and others see the loss of regional languages as something regrettable and have made various attempts to protect them. These efforts can be to maintain, revitalize or record them. The particular approach taken depends on the degree of vitality or endangerment. This may range between growing, strong, weak, dying and extinct. Efforts to maintain or revitalize weak languages can be made but where languages are dying, little can be done except to document the language before it disappears. Attempts to document a number of dying languages have been made (Lauder, 2007a, Lauder, 2011a, Lauder, 2007b, 2011b, Lauder and Sugono, 2011, Lauder and Lauder, 2012b, c). Most experts concede that succeeding in such efforts is by no means easy as the forces putting pressure on small communities is so great. Language revitalization efforts can be supported by appropriate language policy and planning. Indonesia's policy from independence has been

consistent and supports the need for both the national and the regional languages. New legislation has been proposed and drafted that could guarantee support for the continued function and the role of regional languages, though it still needs parliamentary approval (Lauder and Lauder, 2012a).

The hundreds of regional languages in Indonesia are mutually unintelligible but when examined closely, it is possible to find similarities in vocabulary and structure. By examining such correspondences, the languages in Indonesia can be classified as belonging to one or other of two language families.

The grouping of languages into families has been done for nearly all of the approximately 6,000 languages in the world (Crystal, 1997). According to one author, these can be classified into 17 language families (Comrie et al., 2003). They are known as Indo-European, Uralic, Altaic, Chukotko-Kamchatkan, Caucasian, Afro-Asiatic, Nilo-Saharan, Niger-Congo, Khoisan, Eskimo-Aleut, Na-Dene, Amerind, Dravidian, Sino-Tibetan, Austric (Austronesian), Papuan (Non-Austronesian), and Australian Aboriginal.

Two of these language families are represented in Indonesia. The regional indigenous languages in Indonesia all belong to either the Austronesian or the Papuan (Non-Austronesian) language family (Lewis et al., 2015). Out of 706 living languages recorded for Indonesia, about two thirds of the languages are from the Austronesian language family, but 255 languages, or about one third, can be classified as Papuan or Non-Austronesian (Lewis et al., 2015). All 255 of these languages are found in the eastern part of Indonesia, in the Maluku Islands, the western part of Nusa Tenggara, and in Papua.

The reason for there being two names for this language family, Papuan or Non-Austronesian, arises because, although they are found in Papua and Papua New Guinea, it is possible that with further study it may be that this group of languages does not belong to one family, but to a number of other, as yet unverified language families. The picture is further complicated as some of these Papuan languages may in fact have had their origins with the Austronesian language family (Comrie et al., 2003). Further studies are needed to clear this up.

Probing the Melanesian World

The language picture in Indonesia is complex with regard to number of speakers, social functions, endangerment status and language families. If we look at the geographical context in which Indonesia finds itself, we can distinguish the Southeast Asian region and East Asia, and the Southwest Pacific region beyond which is the rest of the Pacific.

The classification of language families is done by linguists primarily on the basis of an approach called historical comparative linguistics. This branch of linguistics classifies languages on the basis of systematically comparing features in languages to identify if they are related by sharing a common ancestor language. Another approach is geographical linguistics, whose methods can be used to produce maps of the geographical distribution of different languages.

What languages are found in Melanesia and what relationship do they have with the languages in Indonesia and other neighbouring areas? In Indonesia, the majority of languages are in the Austronesian language family. Austronesian languages also form the majority in neighboring Malaysia, Brunei, and the Philippines. Austronesian language speaking minorities are also found in Taiwan and, to the west, in Madagascar. Going eastward, into the Pacific, we find the the languages of the island nations of the Pacific are also predominantly from the Austronesian language family. This poses something of a problem because the Melanesian people do not primarily identify themselves as Austronesian.

The term Melanesian is also problematical because it is used to refer to a number of different things, a geographical area, a political grouping, or a cultural area. None of these are either consistent or definitive. The linguistic data show that there is no Melanesian language family (Comrie et al., 2003, Comrie, 2009). The term Melanesia is probably most suitably used to describe a geographic area, along with its regional, Oceanic culture. The countries that belong to this area are Fiji, Papua New Guinea, Solomon Islands, and Vanuatu. However, the majority of the languages here are Austronesian, with a smaller number related to the Non-Austronesian language family. This means that there is a strong link with the majority of languages in Indonesia. However, culturally, in these countries, there is a strong identification with the culture of the Non-Austronesian languages. Further, within Indonesia, about a third of the languages are from the Non-Austronesian language family, so this part of Indonesia can be seen as culturally similar to and part of Melanesia. The term Melanesia is complicated further by its being coopted for use in the geopolitics of the South Pacific region. The use of the word in regional groupings that have agitated for the independence of West Papua from Indonesia is one aspect of this.

The etymology of the term “Melanesian”, French spelling *Mélanésie*, comes from the Greek *ἰμέλας* [melas] which means ‘black’ and *νησος* [nésos] which means ‘islands’. This term was coined by Jules Dumontd’Urville in 1832 to give a name to the indigenous inhabitants as a group and to distinguish them from the Polynesians and Micronesians

(D'Urville, 2003). This is an exonym, a name given to a group of people by another group of people, and is not the way the Melanesians refer to themselves. The word Melanesia therefore refers to islands inhabited by dark-skinned people with curly hair. At the time, few would have taken exception to this. However, today, we understand firstly that using physical appearance to classify people is unreliable and it has also been used to commit some horrific crimes. We consider this as racism and avoid it.

Finally, we can point to the irony in the use of Melanesian as a flag for freedom from oppression or colonialism in the light of its origin as a foreign exonym that was coined by early European explorers who coined the name on the basis of what we now consider a racist and essentialist perspective.

Considering these problems, linguists tend to avoid using the term Melanesian with respect to attempts to characterize the languages or peoples of the region. However, because it is used in this book, we use it here to refer to the geographical area and sub-regional culture of Oceania.

Linguistics can help us to better understand the Melanesian world. Linguistic evidence can be used to bring clarity to our understanding of how many languages there are, what their geographical distribution is, how many speakers there are, what the status of the languages is with regard to vitality and endangerment, how languages are related to each other in families. We can also get a better understanding of the past, building a picture of the ancestors of today's languages, and their place of origin and patterns of migration. Such empirical data can be used on its own or in conjunction with findings from genetics, archaeology, and anthropology, to arrive at a detailed picture of the language situation in each of the countries in the Melanesian region and to use such empirical findings to either support or challenge various claims and assumptions about the region.

The Status of Languages in the Region

In order to better understand the linguistic situation in the Melanesian area, we look now at the question of how many languages there are in each country and what their status is. We look in turn at the language situation in Fiji, Vanuatu, the Solomon Islands, New Caledonia, Papua New Guinea, Timor Leste, and Indonesia. The concept of status here refers to whether the languages have an important or widespread function in society, and whether they possess a strong vitality or whether they are weak, or endangered. Most of the information presented here is taken from Lewis et al. (2015), unless mentioned otherwise.

Classifying languages in this way necessarily must confront a wide variation in what is found in different contexts. In order to make it easier to grasp the situation, we can classify languages according to their characteristics in a scale that measures vitality and endangerment.

A number of such scales have been proposed, with each one using a different number of levels and intended to focus on a variety of different concepts and objectives. Not all of these schemes have been designed specifically to act as a comprehensive, global assessment of language vitality. However, one scale, the Expanded Graded Intergenerational Disruption Scale (EGIDS) has been designed to fill that role allowing comparisons among all the world's languages (Lewis and Simons, 2010).

EGIDS or the Expanded Graded Intergenerational Disruption Scale has thirteen levels. These can be grouped into six broader categories. These each have a color to help distinguish them from one another. The categories are:

Purple	<i>Institutionalized</i> (EGIDS 0-4)—The language is healthy and strong. The language has been developed to the extent that it is spoken sustainably in households and communities, and it is also used for formal functions in state institutions.
Blue	<i>Developing</i> (EGIDS 5)—The language is developing. The language has a stronghold in the society and is spoken widely. It also has standardized language literatures although they have not been spread widely and sustainably.
Green	<i>Strong/Vigorous</i> (EGIDS 6a)—The language is strong. The language has not yet been institutionalized but is spoken widely by all generations.
Yellow	<i>Weak/In Trouble</i> (EGIDS 6b-7)—The language is weak. The language is not being transmitted smoothly across the generations, but the younger generations still can speak the language. So, language revitalization can be carried out in order to encourage its transmission in households.
Red	<i>Endangered</i> (EGIDS 8a-9)—The language status is endangered. The language is only spoken fluently among the older generation so that it is too late to revitalize the transmission process among the generations in the home. A revitalization effort from outside the household is needed for the language to survive.
Black	<i>Nonexistent/Extinct</i> (EGIDS 10)—The language is nonexistent. No one speaks the language any longer. The language has not been spoken by anyone to indicate their identity.

The thirteen levels of EGIDS are outlined in detail in Table 1.

Scale	Label	Description
0	International	The language is widely used between nations in trade, knowledge exchange, and international policy.
1	National	The language is used in education, work, mass media, and government at the national level.
2	Provincial	The language is used in education, work, mass media, and government within major administrative subdivisions of a nation.
3	Wider Communication	The language is used in work and mass media without official status to transcend language differences across a region.
4	Educational	The language is in vigorous use, with standardization and literature being sustained through a widespread system of institutionally supported education.
5	Developing	The language is in vigorous use, with literature in a standardized form being used by some though this is not yet widespread or sustainable.
6a	Vigorous	The language is used for face-to-face communication by all generations and the situation is sustainable.
6b	Threatened	The language is used for face-to-face communication within all generations, but it is losing users.
7	Shifting	The child-bearing generation can use the language among themselves, but it is not being transmitted to children.
8a	Moribund	The only remaining active users of the language are members of the grandparent generation and older.
8b	Nearly Extinct	The only remaining users of the language are members of the grandparent generation or older who have little opportunity to use the language.
9	Dormant	The language serves as a reminder of heritage identity for an ethnic community, but no one has more than symbolic proficiency.
10	Extinct	The language is no longer used and no one retains a sense of ethnic identity associated with the language.

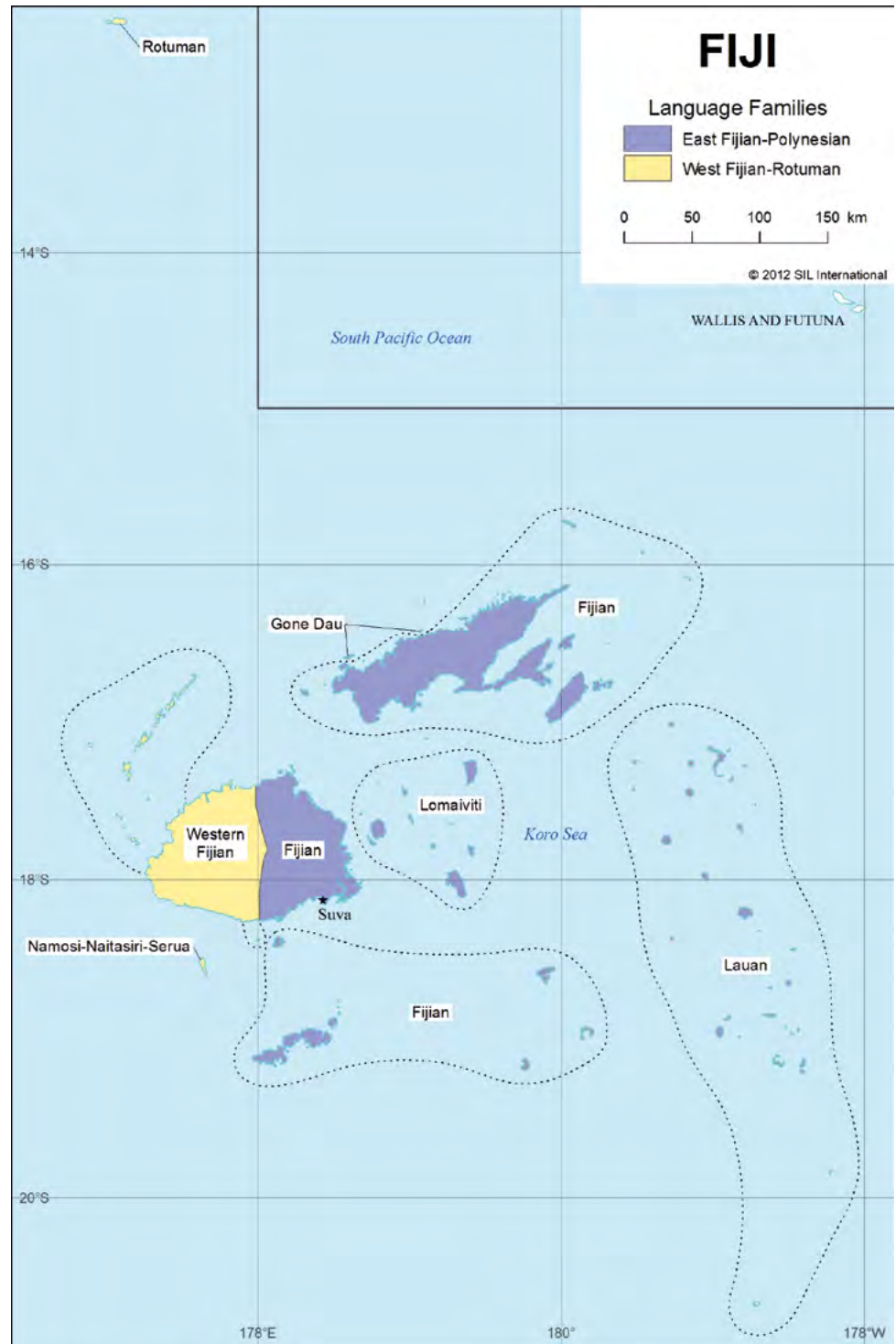
Country Language profiles

Language profiles are given below for Indonesia and the countries in the Melanesian area. The profile for each includes a general description with demographic and other information, a language distribution map indicating language families, a graph of the status of languages based on EGIDS and a list of languages which are dying or extinct.

Fiji

The official name of Fiji is Republic of Fiji, Matanituko Viti, or Fiji Ganraajya. The population of Fiji is 881,000. Fiji has 325 islands; only 100 islands are inhabited. The literacy rate is 94% (Lewis et al., 2015).

Language Distribution Map
in Fiji.



The main language used by the people of Fiji is English. Nevertheless, in parliament, Fijian and Hindi are also spoken. Fijian is a language in the Malayo-Polynesian subgroup of the Austronesian language family. Fijian has a number of dialects, the most commonly used one being Bau, which is used throughout the country with the exception of Rotuma (Gall and Hobby, 2007).

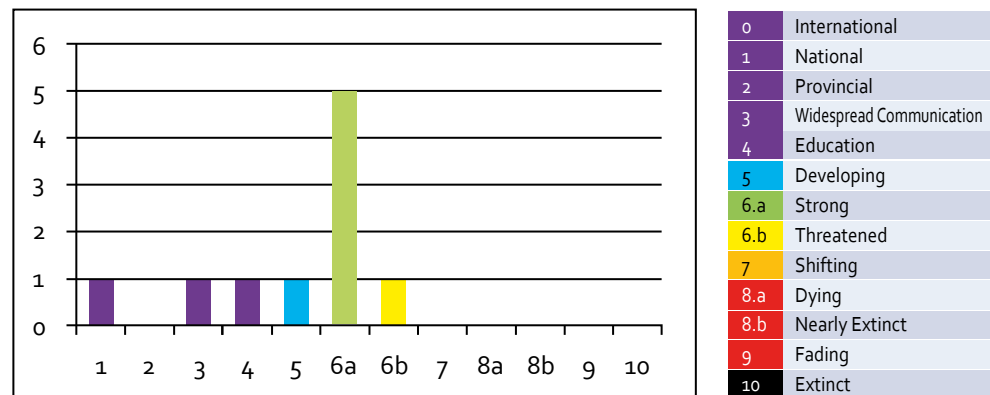
Language Distribution Map in Fiji¹

Fiji has ten languages. All of them are used as a means of communication by the people of Fiji.

Of these ten languages, there are eight languages which are part of the Austronesian language family. So we can say that 80% of the languages in Fiji are Austronesian languages. The map shows that the languages in Fiji belong to two major language families, East Fijian-Polynesian and West Fijian-Rotuman.

The majority of Fijians speak East Fijian-Polynesian languages.

Graph 1: Language Transmission Scale in Fiji



As shown in the graph, in Fiji there are three languages with institutional status, one developing language, five strong languages, and one in a weak state. Among all the countries in the Melanesian region, Fiji's languages are in the best state. No language has become extinct in Fiji and there is only one threatened language, Rotuman [RTM], a non-Austronesian language, status 6b on the scale (Lewis et al., 2015).

¹ All of the maps in the language profile section of this chapter are used by permission, 2016 © SIL International Ethnologue: Languages of the World, 18th Edition, online version. Further redistribution prohibited without permission.

Vanuatu

The official name of Vanuatu is the Republic of Vanuatu. The country has a population of 253,000., The literacy rate is quite high at 81% (Lewis et al., 2015).

The main language spoken by people of Vanuatu is Bislama also known as Bichelama. Bislama is a language based on Pidgin English. Bichelama is acknowledged as a lingua franca in the constitution; the National Anthem of Vanuatu is composed in Bislama. In more formal settings, however, such as in parliament, reports are written in English and French.

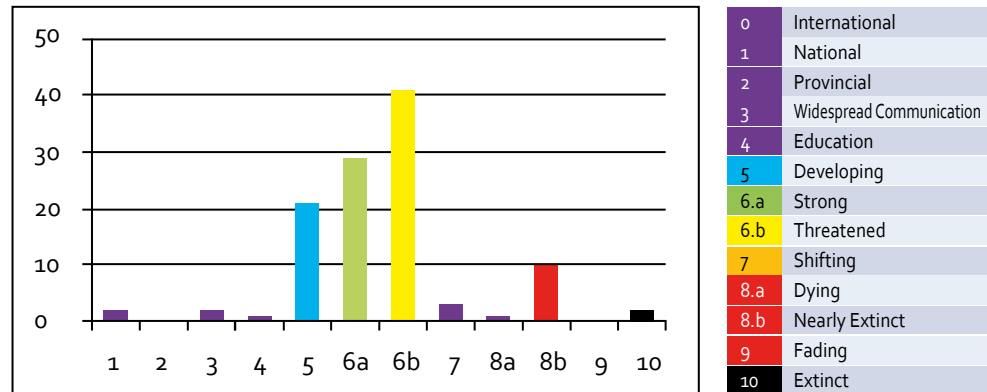
The language situation of Vanuatu is heterogeneous, considering its small population (Gall and Hobby, 2007).

The Language Distribution Map of Vanuatu

Vanuatu has 112 languages. 110 of these languages are living; all of them belong to the Austronesian language family.

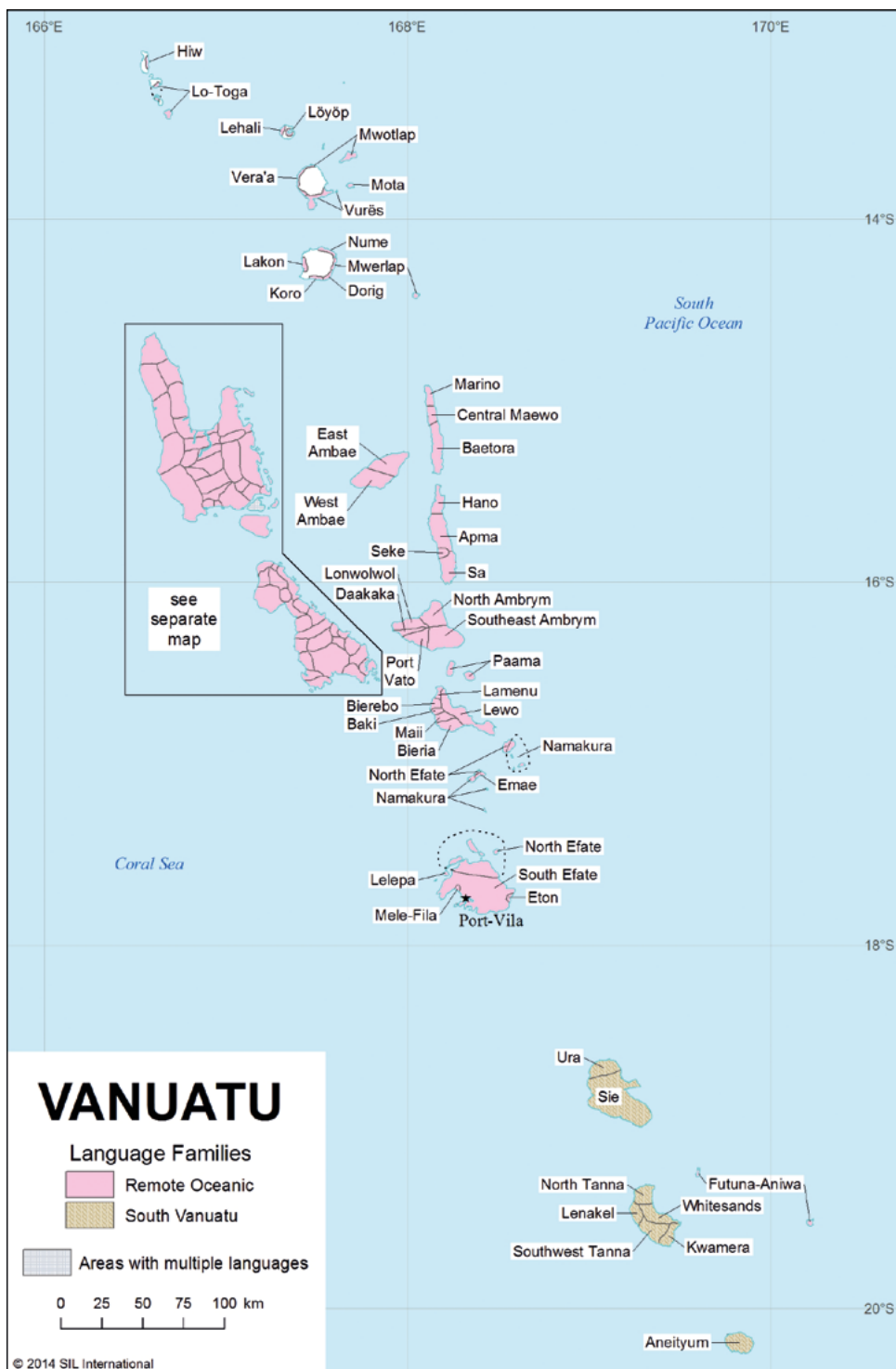
Two subgroups of languages are found in Vanuatu. The languages in the North and west are from the Remote Oceanic subgroup while the languages used in the South and east are from the South Vanuatu language subgroup.

Graph 2: Language Transmission Scale in Vanuatu



Out of 112 languages in Vanuatu, there are 110 active languages. Their status is as follows. There are five institutionalized languages, 21 developing languages, 29 strong languages, 44 weak languages, and 11 endangered languages. Among the endangered languages one is dying language (8a on scale), Tambotalo [TLS] and 10 are almost-extinct languages (8b on scale) as follows: Araki [AKR], Lemerig [LRA], Litzlitz (LZL), Maragus [MRS], Nasarian [NVH], Oirat [OLR], Port Sandwich [psw], Sowa [sww], Ura [UUR], and Vurës [MSN].

Language Distribution Map in Vanuatu



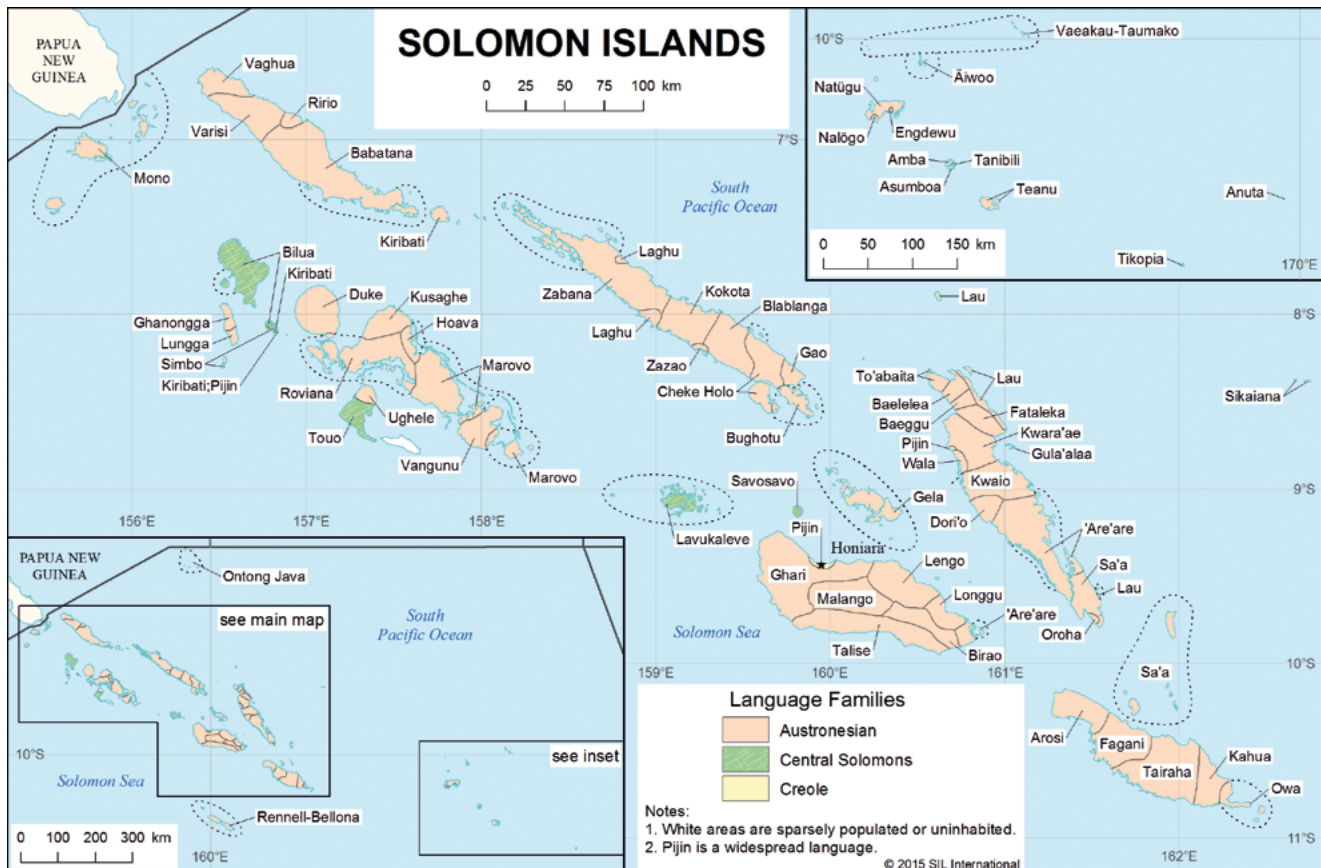
Finally, in Vanuatu two languages have been listed as extinct (10 scale); they are Aore [AOR] and Ifo [IFF]. The numbers of languages in each category can be seen in the graph.

The Solomon Islands

The official name of the country is the Solomon Islands. It has a population of 554,000. The literacy rate in the Solomon Islands is 77%.

The two main languages in the Solomon islands are Solomon pidgin which is used as a lingua franca by the majority of the population to communicate, and English which only 1% to 2% of the population can speak (Lewis et al., 2015). In some places, Solomons pidgin has evolved into a creole.

The Solomon Islands may have had a connection with the island of Java. There is an atoll there called *Ontong Java* (Gall and Hobby, 2007). The name resembles *Untung Jawa*, an



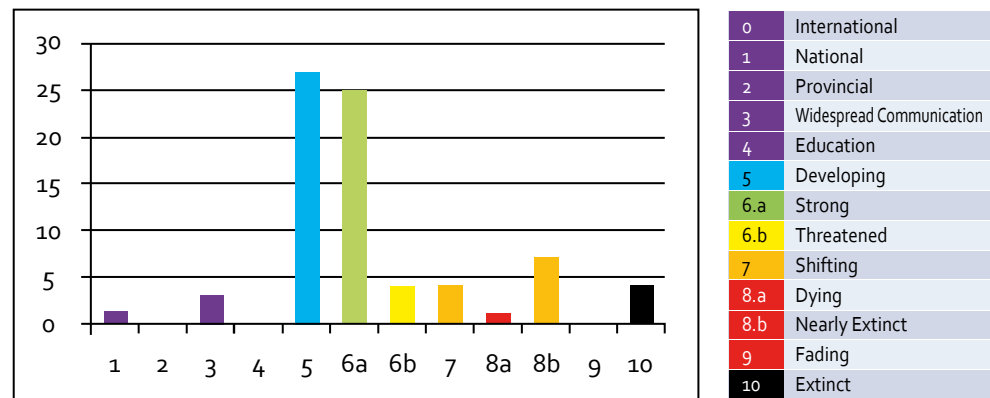
Language Distribution Map in Solomon Islands

island in the group of islands called the Thousand Islands in the Jakarta capital city region. The similarity deserves further research to establish if this is more than coincidence.

Language Distribution Map in Solomon Islands

75 languages are listed in the Solomon Islands. 68 of these, or 90.66%, are known to be members of the Austronesian language family. The seven remaining languages are from the Central Solomons sub-group of languages. They are spoken in a small number of islands along the southern edge of the archipelago.

Graph 3: Language Transmission Scale in Solomon Islands



The status of the languages in the Solomon Islands is as follows. Of the 75 languages listed, 71 are living. Three of these are institutionalized; 27 are developing; 25 are strong; 8 are weak; and 8 are endangered. Of the endangered languages, 1 is dying, 8a on the language scale, Anuta Language [AUD], and 7 are nearly extinct, 8b on the language scale. The nearly extinct languages are Asumboa [AUA], Laghu [LBG], Lovono [VNK], Ririo [RRI], Tanema [TNX], Tanibili [TBE], and Zazao [JAJ]. Four languages are recorded as being extinct, 10 on the scale. These languages are Dororo [DRR], Guliguli [GLI], Kazukuru [KZK], and Rennellese, a sign language [RSI]. The status of the languages in the Solomon Islands can be seen in the graph.

New Caledonia

The official name of New Caledonia is Nouvelle-Calédonie. It has a population of 262,000. The literacy rate of New Caledonia people is 96%. New Caledonia does not have the status of a country, but is a French overseas territory and therefore is a part of France. French

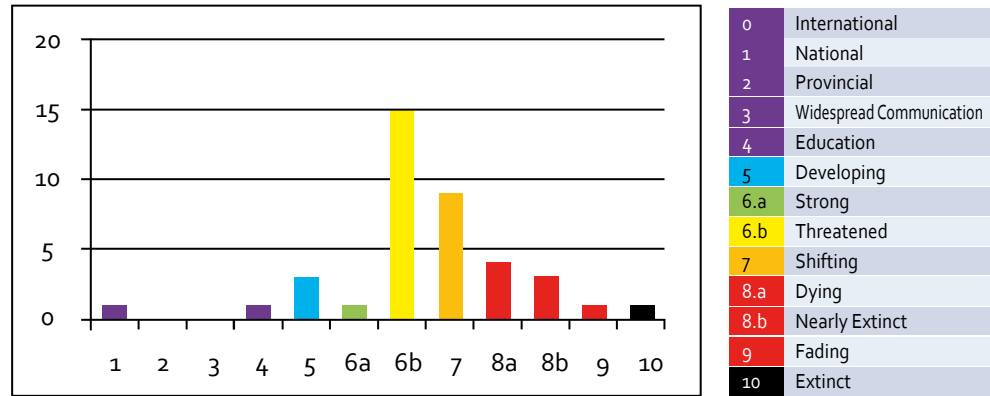


people constitute a significant sized minority of the people in New Caledonia, 37%. French is the main language spoken (Gall and Hobby, 2007).

Language Distribution Map in New Caledonia

In New Caledonia, there are 38 living languages. 36 of them or 92.30% are members of the Austronesian language family. Three main geolinguistic areas can be distinguished. In the northern half of the main island we find the Northern New Caledonian subgroup; in the southern half there is the Southern New Caledonian subgroup; and in the islands to the north and east there is the Loyalty Islands subgroup which is thought to have originated from East Polynesian Fijian. Smaller subgroups include Haekic, an isolate in the Northern Caledonia area, while near Noumea, the capital city, Tayo Creole and New Caledonian Javanese are spoken.

Graph 4: Language Transmission Scale in New Caledonia



The number of individual languages listed for New Caledonia is 39. Of these, 38 are living and 1 is extinct. Of the living languages, 2 are institutional, 3 are developing, 1 is vigorous, 24 are in trouble, and 8 are endangered.

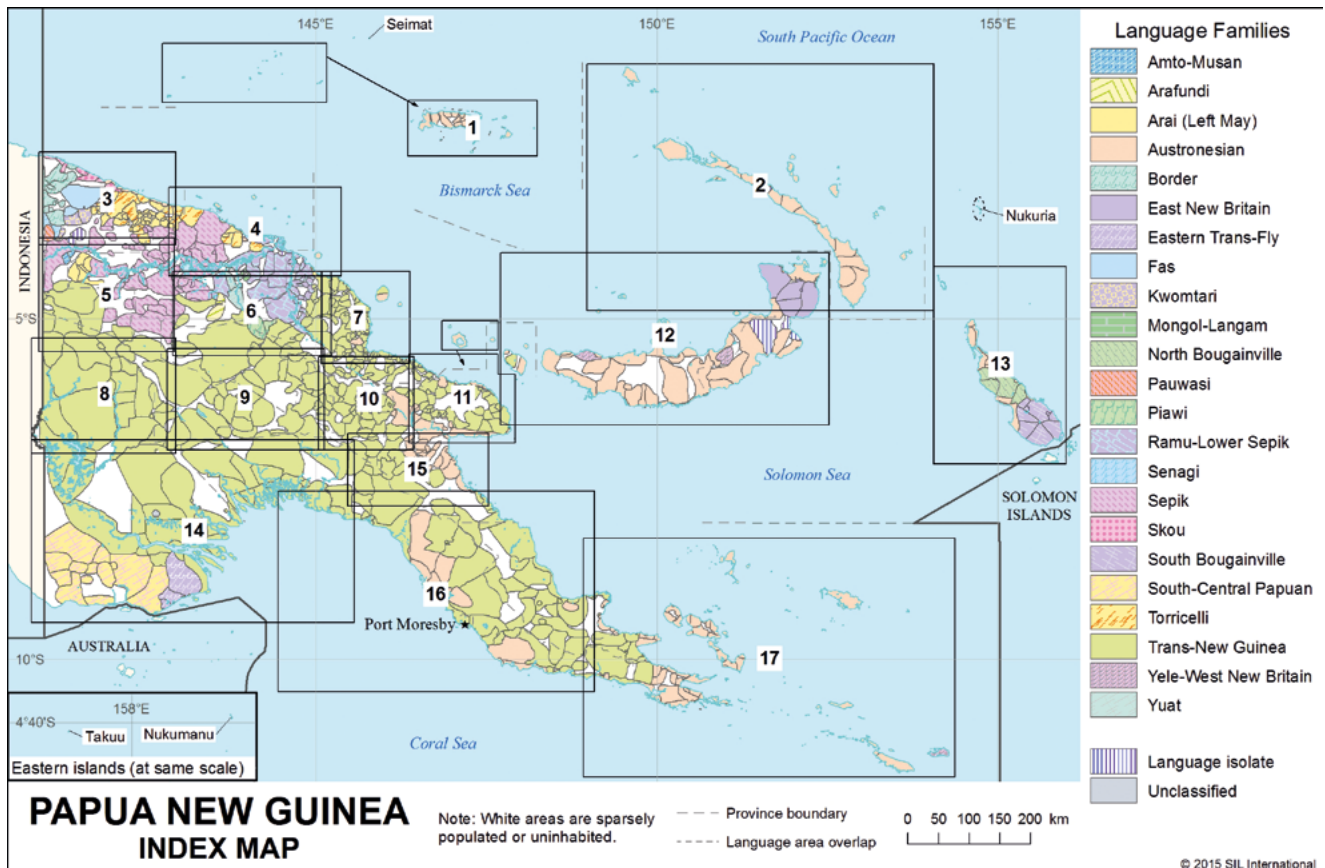
Of the endangered languages are 4 dying languages, 8a on the scale, namely Arhâ [AQR], Neku [NEK], Pije [PIZ], and Vamale [MKT]; there are 3 nearly extinct languages, 8b on the scale namely Arhö [AOK], Haeke [AEK], and Pwapwâ [POP]; and there is also 1 fading language, 9 on the scale namely Sîshèè [SIH]. One language is listed as extinct, 10 on the scale, namely Waamwang [WMN]. The number of languages in the different status levels can be seen in the graph (Lewis et al., 2015).

Papua New Guinea

The official name of Papua New Guinea is the Independent State of Papua New Guinea. It has a population of 7,732,000. 18% of its people live in cities. The literacy rate is 57%. Papua New Guinea occupies the eastern half of the large island of Papua and also approximately 600 other islands to its north east and south east (Lewis et al., 2015).

The main language spoken in Papua New Guinea is Tok Pisin, a pidgin language and lingua franca. English was the colonial language and although spoken by a minority, is growing and is used for official purposes for example in broadcasts by the national radio (Gall and Hobby, 2007).

Papua New Guinea has more languages than any other country in the world, a total of 851 languages. is a country with the most languages in the world; there are 851 languages. With only 7.36 million people, the average number of speakers per language is about 9,000. The language situation in Papua New Guinea is very diverse and complex.

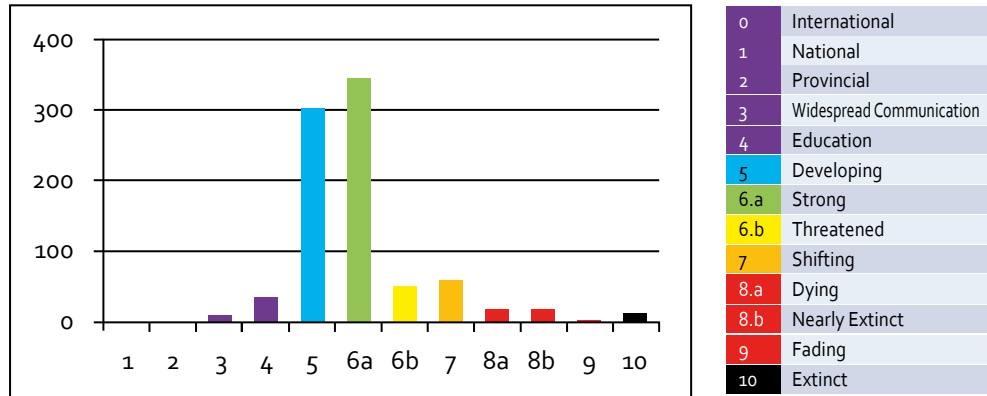


Language Distribution Map for Papua New Guinea

Language Distribution Map in Papua New Guinea (PNG)

Of the 851 languages identified in Papua New Guinea, 839 are living. The map shows that Papua New Guinea has a bewildering patchwork of different language subgroups. Genetically, there are two main language families in Papua New Guinea, Austronesian and Papuan. The term Papuan is not a single language family but rather a term of convenience referring to an amalgam of as many as sixty different language families for which there is no evidence as yet of relatedness (Aikhenvald and Stebbins, 2007: 239). There are 240 Austronesian languages, 28.20% of the total. Austronesian languages tend to be found on islands and in the coastal areas of New Guinea. However, some Austronesian languages exist inland. Papuan languages form the majority, but the even the largest of these has only 100,000 speakers.

Graph 5: Language Transmission Scale in Papua New Guinea



The status of the languages of Papua New Guinea is as follows.

The total number of languages in Papua New Guinea is 851. Of these, 839 are living languages. 43 of them are institutionalized languages, 303 developing languages, 347 strong languages, 108 weak languages, and 37 endangered languages. These endangered languages consist of 16 moribund languages, 8a on the scale, namely, Ainbai [AIC], Bilakura [BQL], Iteri [ITR], Madi [GRG], Mawak [MJJ], Piame [PIN], Puare [PUX], Pyu [PBY], Sonia [SIO], Taiap [GPN], Turaka [TRH], Uya [USU], Valman [VAN], Wantoat [WNC], and Yarawata [YRW]. There are 19 nearly-extinct languages, namely Abaga [abg], Abom [aob], Dumun [DUI], Gorovu [GRQ], Gweda [GRW], Kamasa [KLP], Karawa [XRW], Kawacha [KCB], Kowaki [XOW], Magori [ZGR], Mamaa [MHF], Momare [MSZ], Mungkip [MPV], Onjob [ONJ], Rema [BOW], Susuami [SSU], Tennis [TNS], Turumsa [TQM], and Unubahe [UNU]. There are also 2 nearly extinct languages 8b on the scale, namely Guramalum [GRZ], and Unerdeutsch [ULN]. No languages are classified as fading, 9 on the scale. Finally, there are 12 extinct languages, 10 on the scale, namely Aribwatsa [LAZ], Bina [BMN], Hermit [LLF], Kaniet [KTK], Karami [XAR], Laua [LUF], Makolkol [ZMH], Mulaha [MFW], Ouma [OUM], Sene [SEJ], Uruava [URV], and Yoba [YOB]. The details of language status conditions can be observed in the above Graph (Lewis et al., 2015).

Timor Leste

The official name of Timor Leste is The Democratic Republic of Timor Leste, República Democrática de Timor-Leste, or República Demokrátika Timor Lorosa'e. It has a population of 1,178,000. Literacy is low at only 53% (Lewis et al., 2015).



Language data from Centre for Regional Studies, Universitas Kristen Artha Wacana (1997)

Language Distribution Map in Timor Leste

The main languages spoken in Timor Leste are Portuguese, Tetun, and Dili Tetun. Three main types of languages are found: Central Eastern Malayo-Polynesian subgroup, in the Austonesian language family; Trans-New Guinea; and Creole. The languages in the Austronesian language family are Tetun, Galoli, Mambai, and Tukudede. Languages in the Trans-New Guinea language family are Bunak, Kemak, Makasae, Dagade, Idate, Kairui, Nidiki and Baieku (Gall and Hobby, 2007).

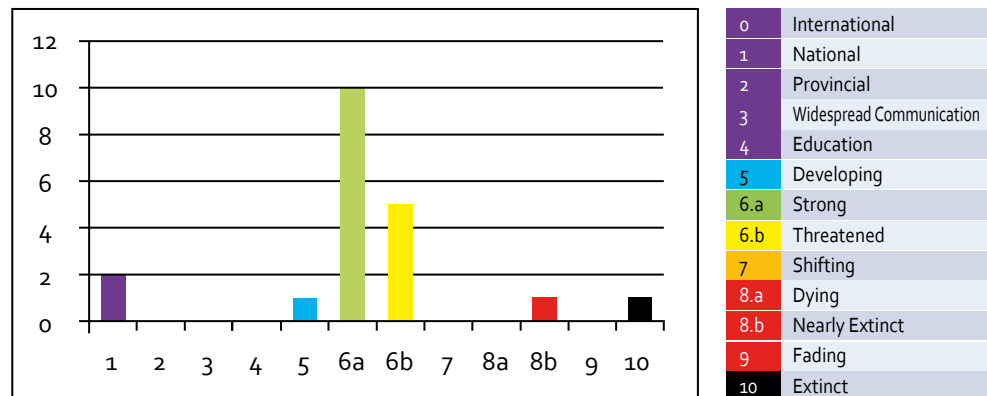
Portuguese is promoted for official use, and Indonesian not supported. However, people living in the cities continue to use English and Indonesian in daily life.

The Language Distribution Map in Timor Leste

Languages in the Central Eastern Malayo-Polynesian subgroup of the Austonesian language family are found primarily in the west of the country with Trans-New Guinea languages occupying the majority of the east of the country.

The west of the country is primarily an area where languages from the Central Eastern Malayo-Polynesian subgroup are found, with the exception of Bunak, a Trans-New Guinea language which is found in the south-west. The east of the country, meanwhile, is mostly a Trans-New Guinea language family area, apart from a few small areas where Central Eastern Malayo-Polynesian languages such as Makasae and Fataluku are used. Creole is spoken in Dili, the capital city.

Graph 6: Language Transmission Scale in Timor Leste

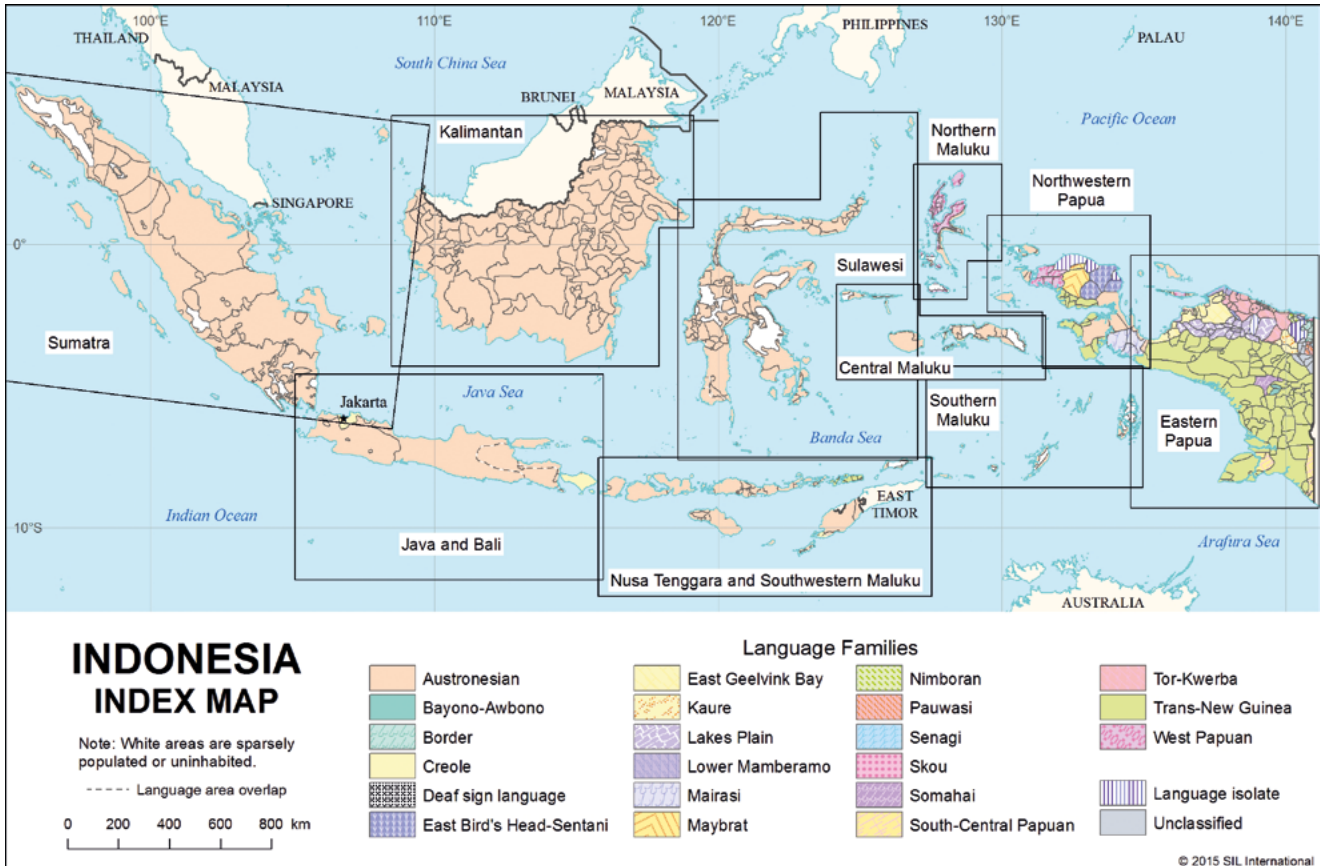


Of the 20 listed languages of East Timor 19 are living languages. Two of these are institutionalized, one is developing, ten are strong, five are in trouble, one is nearly extinct, 8b on the scale, Makuva [LVA]. The extinct language is Timor Pidgin [TVY]. These are shown in the graph (Lewis et al., 2015).

Indonesia

The official name of Indonesia is the Republic of Indonesia. Indonesia's population is 252.200,000 (Badan Pusat Statistik, 2015). The literacy rate is 90%. Indonesia is an archipelagic nation consisting of over 13,000 islands spread over three time zones from Sumatra in the west to Papua on the island of New Guinea in the east. The national language is Bahasa Indonesia but many indigenous regional languages are found across the country.

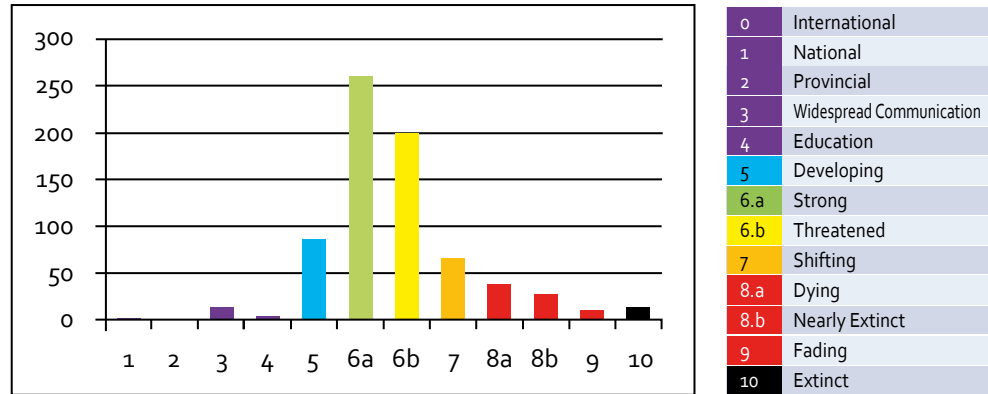
Language Distribution Map in Indonesia



Language Distribution Map in Indonesia

The language map shows that Austronesian languages occupy most of the west and central regions of the country, while Papuan or Non-Austronesian languages are found in the east, in Papua and West Papua and in parts of Maluku, and East Nusa Tenggara. There are 706 living languages in Indonesia and of these, 464 are from the Austronesian language family, 64.53% of all languages. There are 255 Non-Austronesian languages, 35.47% of the total. Where there are Non-Austronesian languages, generally they are found along with Austronesian languages, in contact with each other and there are many examples of mutual influence or mixing of features.

Graph 7: Language Transmission Scale in Indonesia



The total number of languages in Indonesia is 719 of which 706 are living languages. Their status is as follows. There are 19 institutionalized languages, 86 developing languages, 260 strong languages, 266 weak or endangered languages, and 75 dying languages. Among the dying languages, there are 36 moribund language, 8a on the scale, namely Haruku [HRK], Karas [KGV], Lemolang [LEY], Liabuku [LIX], Liki [LIO], East Masela [VME], Mekwei [MSF], Mombum [MSO], Nafri [NXX], Nimboran [NIR], Ponosakan [PNS], Saparua [SPR], Sawi [SAW], Serili [SVE], Sowari [DMY], Tabla [TNM], Tarpia [TPF], Tomadino [TDI], Topoiyo [TOY], Toweï [TTN], Usku [ULF], Viid [SNU], Yarsun [YRS], and Yelmek [JEL]. There are 25 nearly-extinct languages, 8b on the scale: Aputai [APX], Burumakok [AIP], Duriankere [DBN], Emplawas [EMW], Kaibobo [KZB], Kanum Bâdi [KHD], Kayupulau [KZU], Kembra [XKW], Kwerisa [KKB], Lengilu [Lgi], Lolak [LLQ], Melayu Bacan [BTJ], Mander [MQR], Massep [MVS], Mlap [KJA], Morori [MOK], Namla [NAA], Paulohi [PLH], Petjo [PEY], Ratahan [RTH], Salas [SGU], Taje [PEE], Tobati [TTI], and Worïa [WOR]. There are also 8 dormant languages, 9 on the scale, namely Dusner [DSN], Iha Pidgin [IHB], Javindo [JVD], Kamarian [KZX], Kayeli [KZL], Nusa Laut [NUL], Onin Pidgin [ONX], and Tandia [TNI]. Finally, there are 13 extinct languages, 10 on the scale, namely Hoti [HTI], Hukumina [HUW], Hulung [HUK], Loun [LOX], Mapia [MPY], Mokselä [VMS], Naka'ela [NAE], Nila [NIL], Palumata [PMC], Saponi [SPI], Serua [SRW], Ternateño [TMG], and Te'un [TVE]. The numbers of languages for each scale level are shown in the graph (Lewis et al., 2015).

Understanding Language Endangerment

There is widespread concern among linguists, anthropologists and others that the loss of the world's small, indigenous languages is accelerating. The loss of languages is concerning for a number of reasons such as human rights, the value of diversity and the value of local knowledge. These need to be elaborated in support of the idea of preserving small, endangered languages (Crystal, 2000: 32ff).

- Language is a human right. It defines and is part of individual and group identity. It reflects the uniqueness of particular societies. To deny people that goes against human rights.
- Diversity is of value in itself. Linguistic diversity is something positive. In biology and ecology monocultures are inherently unstable (Tu, 2000). Some economists argue that for the sake of economic efficiency there should be only one language. This extreme view ignores the value of language in relation to identity and to improvements in cognition. It has also been argued that cultural diversity can have a positive effect on economies (Harrison and Huntington, 2000). A reasonable level of diversity is preferable to a monoculture. Monolingual societies are not better equipped than multilingual ones to deal with the strategic problems of development, poverty alleviation, security, sustainability and climate change. We need linguistic diversity.
- Language is a repository of human knowledge. A language with a written tradition stores and makes available the thoughts of artists, scientists, philosophers and others. Access to great ideas drives development and innovation. Where a society has no written language system, its knowledge must be passed down through its oral traditions. In oral cultures, wisdom and knowledge about a wide variety of things can be passed down. This can reveal ways of living in particular ecosystems that have not been previously identified in modern societies, including sustainable agricultural practices, the identification of plants with medicinal properties, and ways of seeing and living in the world that offer a new perspective. This contributes to our shared human repository of knowledge.
- Oral histories offer insights into our past. Understanding our own history can aid our attempts to live in the present. Although oral cultures do not have written histories, oral histories, fables, myths and other genres can offer insights into the past of a people, its origins, its migrations, the development of its culture, and its relationship with other groups. These histories of small communities are part of human history.

- Language is an object of study and has value in itself. Linguistics is a field of scientific study within the humanities. It has a number of sub-fields that investigate a wide range of language-related issues and questions. This is partly the result of language being involved in so many areas of human life. Language is indeed involved in such activities as language learning and teaching which are of use in society. For example, people may be motivated to learn a language for utilitarian reasons such as applying for a job or in preparation for overseas study. We also need to know something about language if we are going to make good dictionaries or language reference books which are needed in education. And we need people who are good in two or more languages if we want reliable translating and interpreting. But the scope of linguistics is much broader than that. There are also studies of other applications of the use of language in society. These include such things as language and the law, language and the brain, language and computers and so on where interdisciplinary knowledge is required to solve various problems or answer questions such as how can linguistics contribute to the way evidence is given in a trial, or to help provide treatment to someone who has had a stroke and has lost part of their ability to use language, or how we can make software that has language abilities. There are, however, some misconceptions about linguistic studies of minority languages. The first mistaken assumption is that small, pre-industrial cultures, especially those without writing, are not going to have anything of value worth studying because they are not 'civilized'. This idea that small cultures are in some way 'primitive' is a complete fallacy. As one anthropologist has put it, small cultures are not failed attempts at modernity. They are unique ways of seeing the world. The first surprising fact to dispel such fallacies is that many of these indigenous languages have grammatical systems that are more complex than those in the languages of developed nations. We need data from such languages if we are to understand human language as a whole. Among the 6,000 or so human languages, there is a great deal of diversity. The development of any universal theory of language cannot be created based solely on data from the languages of developed countries. It must include data from all the languages in the world. Research into small, indigenous languages has shown that as yet unstudied languages may reveal features that are completely new and which no one has yet imagined could exist. Such discoveries have value when developing formal theories about human syntax as they throw light on the nature and limits of abstract systems used by all human beings. Further, comparative studies into lexical systems in different languages can reveal

cultural patterns. For example, the concept of the family and social relationships can be revealed by looking at personal pronouns. Some cultures have a highly elaborated set of familial and social relations while others are limited to the nuclear family. Research into universal properties in human language and culture is part of the wider study of the evolution of human cognition. They are therefore able to give us insights in the systems that link human language with mind and with culture. Languages encode cognitive and cultural perspectives of our view of the world.

These points are part of the argument about why we should care about language endangerment. The next question is why it is happening. The scale of the problem has been highlighted by the United Nations. This is a break in the age old chain of cultural transmission whereby the younger generation learns culture and language from their parents. This chain is now broken. According to UNESCO only around 30% of the world's families are successfully transmitting their language to their children (Barreña et al., 2000: 328-330). 70% of families are experiencing obstacles to successfully passing on their language to their children. The reasons for this are complex and by no means universal. A number of types of phenomena have been identified. These include natural disasters such as tsunamis or earthquakes, man made disasters and conflict, culturally related reasons, and government policies. We can also see that the failure to pass on a language to the next generation operates in different contexts in multilingual societies where language choice is required. For example, in families living in cities where a mother and father come from different linguistic groups, the children may not pick up either language preferring instead to use a majority language or a national language. In education, government policies may not give young students the option of learning in their mother tongue. Government policies may exclude minority groups and restrict options for using their language for political reasons. Attitudes can play a part too. Where a large, dominant group lives by a smaller, less powerful group, attitudes towards each other, positive or negative can play a part. However, beyond all of these we also find the impact of globalization, climate change and capitalism. Small communities are increasingly finding themselves the losers in the competition for land and resources. Mining, fishing, and other activities, conducted by governments and global corporations, are all too often a zero sum game where everyone knows that the larger, more powerful will win and the small, local communities will lose out.

The size of these communities can also be a factor in language vitality. Many of them are extremely small, with less than a thousand speakers. Sizes such as these can make them

extremely vulnerable to pressures on their way of life. However, size is not necessarily deterministic. Crystal (2000: 20) has argued that languages spoken by at least 1,000 people can be categorized into viable languages, and it is still possible for them to be revitalized. Small communities may also find it possible to just migrate en-masse to some other region where they can restart their lives. However, in general, the picture is rather stark and the odds clearly stacked against preservation or maintenance.

Finally, given the importance of small, local languages, and the nature and causes of language endangerment, we now need to ask, what can be done?

What type of action is appropriate will depend on the status of the language. One of the functions of a scale such as EGIDS is to provide a means to classify languages into a small number of categories as a first step in deciding what action would be appropriate. For example, where languages are strong or vigorous, they can still be assisted to maintain this status. For languages which are in the early stages of being threatened or show signs of shifting, then maintenance programs can be created. And for languages which are endangered, they can be documented to preserve as much as possible for posterity.

In general, small languages are oral and do not have writing systems or written records about their group, its history and culture. This makes the task of documentation all the more urgent because if the last speaker dies, there will be no trace for scholars to look at. There will be no memory at all. Literacy and the development of writing systems can also play a part in the preservation of viable languages.

Most of the countries in the present study have languages which are endangered (EGIDS 8a-8b-9) and extinct languages (EGIDS 10). Fiji is the only country that does not have endangered languages. The appropriate action for endangered languages is to perform field research as speedily as possible to determine the particular circumstances in each case. For extinct languages, it may still be possible to get information from others about the former community and its last speakers.

Vanuatu has 11 dying languages and 2 extinct languages; the Solomon Island has 8 dying languages and 4 extinct languages; New Caledonia has 8 dying languages, and 1 extinct language; Papua New Guinea has 37 dying languages, and 12 extinct languages; Timor Leste has 1 dying language, and 1 extinct language. Indonesia has the largest number of endangered languages, with 75 dying languages, and 13 extinct languages. Where languages are just beginning to show signs of shifting, or where they still have a high vitality, programs of language maintenance and revitalization can be conducted.

Awareness of the situation and an appreciation of why it is significant is needed to help initiate efforts to prevent language extinction and thereby protect and document the cultural and linguistic legacy of humanity.

Language Families and Language Areas

This section explores the question of how the many languages in the seven countries above are related genealogically to each other and how related languages form language areas.

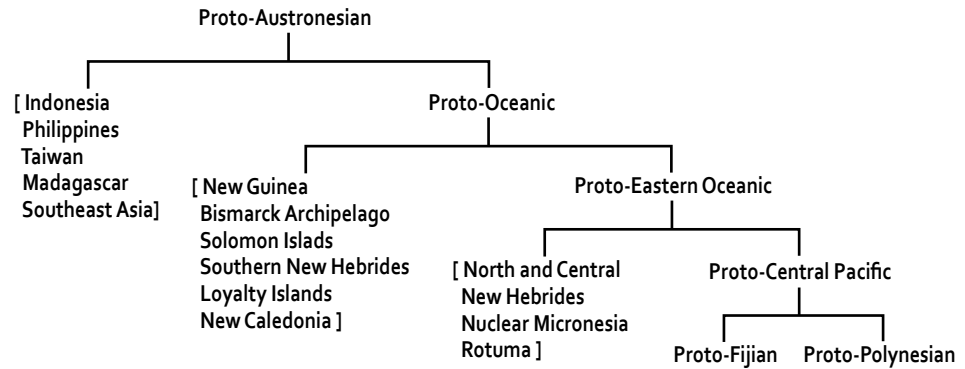
The identification of language families is made using the methods of comparative historical linguistics. This branch of linguistics compares the lexicons of different languages in order to determine the degree of relatedness so that a genealogical family tree can be produced. A family tree allows us to trace back present day languages to some ancestral language. The name given to such ancestral languages is usually proto-language. Proto-languages are the parent languages of groups of related present day languages. The branches of a tree reflect time depth, the further towards the proto-language, the further back in time.

Linguists have studied many of the languages in South-east Asia and the Pacific and now have a reliable picture of the family tree for Austronesian languages. There are still some differences over details of this, but the following explanation is widely used.

The parent language of all Austronesian languages is called Proto-Austronesian. This language is hypothesized as there are no written records from this far back in time, approximately four or five thousand years ago. Proto-Austronesian gave rise to a number of sub-groups in Formosa which is thought to be the ancestral homeland of Austronesian, and the sub-groups Proto-Malayo-Polynesian and Proto-Oceanic. The languages of the Philippines, Malaysia and Indonesia are descended from Proto-Malayo-Polynesian. Within this, there is a western and a central sub-group, and also a South Halmahera and West New Guinea sub-group of Austronesian. Meanwhile, the Austronesian languages of the Pacific are found in an eastern group including New Guinea, the Bismark Archipelago, the Solomon Islands, the Southern New Hebrides, the Loyalty Islands and New Caledonia. There is also an eastern group which includes most of the languages of the greater Pacific.

Distribution Map of Austronesian language family

The Austronesian language family is the biggest family in the world based on numbers of languages. There are approximately 1,200 Austronesian languages (Malmkjær, 2009, Moseley et al., 2010). It also covers the widest area in terms of its geographical



Austronesian Language Family Distribution Map, Source of Map: (Ross, 2009)

distribution. Austronesian languages are found in a vast area from Madagascar in the west, across most of Southeast Asia, as far north in East Asia as Taiwan, across parts of New Guinea, into the Pacific as far as Hawi'i in the north, Easter Island in the South east, and as far as New Zealand in the south. Austronesian languages are found in all regions of the Pacific, including Micronesia, Polynesia, and Melanesia. There are also small communities of speakers of Ausronesian languages in Hainan (the Republic of China), Vietnam, and Thailand. There are approximately 350 million speakers of languages in the Austronesian family (Wurm, 2007).

Investigating Language Structure

The classification of languages as belonging to a particular language family makes use of comparisons of the lexicons of different languages. The principle is that when words in pairs of languages are being compared, and structural similarities are detected, two logical possibilities exist: that they are related through sharing a common ancestor or that any similarity is purely coincidental and one of the words has been borrowed at some before the present. That is, any similarity may be a sign of relatedness but is not enough in itself to define it as such. Linguists use evidence to eliminate words from their data which are borrowed. Then, on the basis of the remaining words, they work out the degree of similarity between words. The more similar that word pairs in two languages are, and the larger the number of words like this in the two lexicons, the closer the relationship between the languages, and also the nearer the present time for any hypothesized branching point. To investigate the internal structures of a language, the methods of language typology can be used and these involve consideration of both the lexicon and syntactic features. The following section describes some of the defining characteristics of Austronesian and Non-Austronesian languages.

Austronesian Language Constructions

It is not easy to identify the typological characteristics of languages in the Austronesian family due to the number of languages in it, the wide geographical spread of member languages, and the time for languages to have changed since the point of common origin. However, three definitive typological features have been pointed out by Himmelmann (2005) which are found within Austronesian languages: (1) the use of reduplication of nouns; (2) inclusive and exclusive marking of first person non-singular pronouns; (3) a causative morphology structure. Another feature that marks Austronesian languages is sentence order (Wurm, 2007). Sentence formation order tends to be S-V-O (subject-verb-object) with the subject first followed by the verb and the object at the end of the sentence (Pawley, 2009, Wurm, 2007).

Non-Austronesian/Papuan Language Constructions

Non-Austronesian/Papuan languages exhibit such great variation that linguists tend to consider that they are most probably not members of a single language family, but of several. This variation and the extremely deep time frame that they have existed, along with limits to the quantity of data that can be found make it difficult to generalize

them. However, there is one structural feature that can be used to distinguish them from Austronesian languages, S-O-V (subject-object-verb) sentence order with the verb at the end of the sentence (Pawley, 2009, Wurm, 2007).

Other features characteristic of languages in the Non-Austronesian language family are dual structures and gender, and also a restrictive numeral system, such as counting sequences which do not have specific numerals for words above two, for example: one, two, then one-two for 'three', two-two for 'four', hand for 'five' and so on. The word "people" (fingers in both hands, and toes in both feet) is sometimes used for 'twenty' (Pawley, 2009).

Determining which language family a language belongs to requires enough evidence from the lexicon and from syntactic structure. Borrowed words are excluded as evidence of common origins but they do show that the languages have been in contact at some time in the past. Further, while both Austronesian and Non-Austronesian languages have defining characteristics, researchers must also be aware that where languages have been in contact, processes such as borrowing may have modified the original character of the language, sometimes masking it. For example, Northern Halmahera has many Non-Austronesian languages, but the influence of Austronesian languages there is significant (Wurm, 2007).

Language Contact

One feature of languages is that they are in a state of constant change. This means that the language at one point in time will be different from that language at other times. Language can change significantly over long periods such as centuries or millennia and become very different from its parent version. However, investigation will usually be able to reveal the relatedness of an older version of a language with its present day form. Relatedness is commonly studied using lexical evidence. Based on systematic changes in the lexicon, it is possible to assemble evidence for different existing languages having evolved from the same ancestral or parent language. Languages which have the same parent language can be classified into the same language family or subgroup (Sihler, 2000: 135).

Lexical Loan Data

The process when one language takes in linguistic units such as words from another language is called linguistic borrowing (Campbell, 2013, Hale, 2007). Although in some popular writing, the admission of loan words into a language may be criticized as in

some way reducing the 'purity' or 'authenticity' of a language, linguists consider that linguistic borrowing is both normal and useful. It is part of the natural interaction between languages. Loan words are introduced into a language when there is a need to describe new concepts or things and no appropriate term exists in that language. In some cases, loan words are introduced because they are seen as having a higher prestige than an existing local alternative.

Important features of language contact and language change in Indonesia have been the interactions between regional Austronesian and Non-Austronesian languages, the spread and influence of varieties of Malay to other regions, frequently as a lingua franca in a multilingual context, the impact of other local languages as lingua francas on smaller local languages, and more recently, the impact of the growth of Bahasa Indonesia on local, indigenous languages. Presently occurring changes and processes are taking place in situations which have resulted from other changes in the past. Studying such a geographically widespread and linguistically diverse situation requires comprehensive research.

A number of linguistic scholars during the Dutch colonial period collected data on the different languages in the archipelago. One important work that gives us a picture of the language situation at that time was performed by K.F. Holle. He spent 40 years surveying 244 local languages from all over Indonesia and was able to compile word lists for them. In order to make Holle's work more widely available and accessible, Stokhof organized and edited 1,546 of Holle's lexical lists (Holle et al., 1980).

Holle's word lists were published in *Pacific Linguistics*, a journal dedicated to studies on Austronesian and Oceanic languages. They are prefaced by a comprehensive description of the reasons for the study and the background of the list itself (PLD-17, 1980). The list of non-Austronesian languages is published in volume 5.1 (PLD-52, 1982), 5.2 (PLD-53, 1983), and 11 (PLD-81, 1987). Other than that, a special description of Non-Austronesian languages in Nusa Tenggara Timur compiled by Stokhof can be found in PLB-43 (1975).

Despite the comprehensiveness and ambitiousness of the study, the lexical data is not complete in all cases. For some languages, it is complete, while for others it is incomplete or inadequate. Further research into Austronesian loan words would be useful. By looking at the loan words from Austronesian into Non-Austronesian languages, and comparing the data in the Holle list with data from the present day, we can get a good picture of the extent and rate of change going on, and its impact on the Non-Austronesian languages since the colonial period.

Although the Holle list is incomplete, it still has enough data in many cases to reveal the existence of Austronesian loan words in Non-Austronesian languages. A comprehensive treatment of this can be found in Lauder and Ayatrohaedi (2006) *The Distribution of Austronesian and Non-Austronesian Languages in Indonesia: Evidence and Issues*. A total of 39 Austronesian lexemes are found in a number of Non-Austronesian languages. The scale of distribution of Austronesian lexical is uneven. Details of it are described below.

Loans by Semantic Field

The lexical loans from Austronesian language can be categorized into several semantic fields: (a) Family Relationships, (b) Clothing, (c) Metals, (d) Animals, (e) Numerals, (f) Plants, (g) Tools, and (h) Other. The tables below provide, for loan words in each of these semantic fields, the Austronesian source word, an English translation, the forms it was borrowed in and the Non-Austronesian languages which borrowed it.

(a) Family Relationships

Austronesian Word	English Translation	Borrowed in Form	By Non-Austronesian Languages
ANAK	child	[ana]	Erai
AYAH	father	[mama]	Abui
LELAKI	man, male	[anak]	Tomayo
IBU	mother	[mama]	Kwime, Sawia
		[ina]	Erai
		[mamme]	Away
		[mamah]	Arzo-Tami
		[amei]	Kapauku Lembah Pania
		[ama]	Dem

The lexeme ANAK '*child*' is borrowed in the Erai language in the form 'ana'. The lexeme AYAH '*father*' appears in the Abui language in form 'mama'. Next, the lexeme LELAKI '*man*' is borrowed in the Tomayo language in form 'anak'. Lastly, the lexeme IBU '*mother*' is borrowed by the Dem Language in form of 'ama'; by the Kwime and Sawia Language in form 'mama'; by Arzo-Tami in the form 'mamah'; by the Away language in the form 'mamme'; by the Kapauku Lembah Pania language in form 'amei'; and by the Erai language in the form 'ina'. It is possible that these lexemes were borrowed to ease communication between the Austronesian and Non-Austronesian groups.

(b) Clothing

Austronesian Word	English Translation	Borrowed in Form	By Non-Austronesian Languages
IKAT KEPALA	headband	[kufia]	Biri, Foya
BAJU	clothes	[baju]	Biri, Foya
KAIN	cloth	[kain]	Sawe
SARUNG	sarong	[sarong]	Sarmi
SABUK	belt	[sabok]	Apauwar

The Biri and Foya languages borrowed the lexeme IKAT KEPALA '*headband*' in the form 'kufia' and the lexeme BAJU '*clothes*' in the form 'baju'. The lexeme KAIN '*cloth*' has been borrowed by the Sawe language in the form 'kain'. Then, the lexeme SARUNG '*sarong*' is borrowed by the Sarmi language in the form 'sarong'. Lastly, the lexeme SABUK '*belt*' was borrowed by the Apauwar language in the form 'sabok'. Clothing is a basic need and jewelry will be used on a daily basis. The words here related to clothing may have been borrowed by Non-Austronesian languages out of situations where clothing items worn by Austronesians were bought and sold between the communities.

(c) Metals

Austronesian Word	English Translation	Borrowed in Form	By Non-Austronesian Languages
PANDAI MAS	goldsmith	[kemasan]	Moi
PERAK	silver	[sarak]	Moi
TEMBAGA	copper	[gensa]	Moi
BESI	iron	[besi]	Tanah Merah

There are four lexemes in the metals semantic field, namely: PANDAI MAS '*goldsmith*' which appeared in the Moi language in form of 'kemasan'; the lexeme PERAK '*silver*' whose etymology is found in Sanskrit '*salaka*' became a loan in the Moi language as 'saraka'; and the lexeme TEMBAGA '*copper*' from Sanskrit *gansa* became 'gensa' in the Moi language. Finally, the lexeme BESI '*iron*' entered the Tanahmerah language in the form 'besi'.

(d) Animals

Austronesian Word	English Translation	Borrowed in Form	By Non-Austronesian Languages
BINATANG	animal	[binatang]	Lamma Kalondama, Kelon, Woisika
		[binatan]	Lamma Tubal
		[binanta]	Blagar, Kui, Tanglapui, Kolana, Kabola
		[nafetang]	Kabola
KERBAU	buffalo	[karfao]	Abui
SAPI	cow	[sapi]	Abui
KIJANG	deer	[menjana]	Moi
KUDA	horse	[kuda]	Abui
AYAM	chicken	[ayam]	Tanah Merah, Sarmi

There are six loan words in the semantic field of animals; BINATANG '*animal*', KERBAU '*buffalo*', SAPI '*cow*', KIJANG '*deer*', KUDA '*horse*', and AYAM '*chicken*'. The lexical variants for the loan of BINATANG are *binatang*, *binatan*, *binanta*, and *nafetang*. The loan for the Austronesian word for '*deer*' KIJANG appears in the Moi language as *menjana*, and most likely originated in the synonym for '*deer*' '*menjangan*'. Austronesians brought with them farming techniques and a number of animals that were not found in the Non-Austronesian areas. It is likely that the loans occurred through contact situations where the animals were traded.

The numeral semantic field has the most loanwords borrowed by Non-Austronesian languages. Many Non-Austronesian languages are characterized by reduced numeral systems. The Hindu-Arabic number system replaced the Roman numeral system in Europe as it was more efficient at performing mathematical calculations in daily life. The introduction of this numeral system for Non-Austronesian communities in the context of trading or bartering would have had similar advantages and this may explain why the borrowing of numerals is so widespread.

(e) Numerals

Austronesian Word	English Translation	Borrowed in Form	By Non-Austronesian Languages
DUA	two	[rwo]	Mapia
TIGA	three	[toloek]	Moi
		[tiga]	Lamma
		[atiga]	Lamma
		[tig]	Tewa
		[yetigu]	Tewa
		[tagu]	Nedebang
		[tuge]	Blagar
		[attoga]	Blagar
EMPAT	four	[fak]	Moi
LIMA	five	[rima]	Humuku
		[limo]	Mapia
		[lima]	Irsam
ENAM	six	[ono]	Mapia
TUJUH	seven	[pitua]	Jabi
RATUS	hundred	[ratu]	Lamma, Blagar
		[ratunuk]	Tewa
		[ratunuku]	Nedebang
		[aratunuk]	Blagar
		[ratuanu]	Blagar
		[ratunu]	Blagar
		[ratnu]	Kabola
		[haratu]	Lamma
RIBU	thousand	[ribu]	Lamma
		[ribnu]	Kabola
		[ribuye]	Lamma
		[ribnuk]	Tewa, Kelon
		[ribunuk]	Tewa, Blagar, Kelon, Woisika
		[ribunuku]	Nedebang, Lamma, Kafoa, Kui
		[ribunu]	Blagar
		[ribuana]	Blagar
		[ribnu]	Kabola
		[ribenuk]	Woisika
		[ribua]	Tanglapui
		[ribnuku]	Kui
		[ribunok]	Woisika
		[rifnuku]	Abui
		[ribunoku]	Woisika
		[ribunoo]	Kolana
		[libunok]	Woisika
		[iribunok]	Woisika
		[haribu]	Lamma

We can observe sound changes in the assimilation process. For example, the word DUA 'two' becomes rwo in Mapian Language. The voice change follows the rules of RDL sound correspondence [two - rua - rwa - rwo]. The same phenomenon also happens with the word LIMA 'five' which became rima in Humuku and limo in Mapian: [rima - lima - limo]. The loanword TUJUH 'seven' is pitua in Jabi suggesting its etymology may be from the word pitu.

Austronesian Word	English Translation
DUA	two
TIGA	three
EMPAT	four
LIMA	five
ENAM	six
TUJUH	seven
RATUS	hundred
RIBU	thousand

(f) Plants

Austronesian Word	English Translation	Borrowed in Form	By Non-Austronesian Languages
KACANG	peanut	[kacang]	Sarmi
JAGUNG	corn	[milu]	Sarmi
		[melu]	Berik

In the semantic field of plants there are only two loanwords: KACANG 'peanut' and JAGUNG 'corn'. There is a possibility that these plants were introduced by Austronesian groups as tradable or bartered commodities. JAGUNG is borrowed as milu in the Sarmi language and as melu in the Berik language found in Ternate.

(g) Equipment

Austronesian Word	English Translation	Borrowed in Form	By Non-Austronesian Languages
ALA	net	[jara]	Moi
JANGKAR	anchor	[jangker]	Sarmi
KAPAL	boat	[kapal]	Sarmi
KAPAK	axe	[kawpak]	Uwimerah Tengah, Downstream

In the semantic field of equipment, there are four loanwords. Three of these have to do with sailing or maritime activity. They are the words: JALA 'net', JANGKAR 'anchor', and KAPAL 'boat'. The loanword JALA is borrowed as jara in the Moi language. The loanword JANGKAR becomes jangker in Sarmi, while the word KAPAL keeps the same form in Sarmi. In addition, there is a lexeme for a basic tool used in manual labor namely KAPAK 'axe', which becomes kawpak in Central Uwimerah, Downstream. Axes were among the earliest stone tools used by early modern humans in Southeast Asia. They evolved during the iron and bronze ages, and the word for axe was probably borrowed first in coastal regions.

(h) Other

Austronesian Word	English Translation	Borrowed in Form	By Non-Austronesian Languages
LAUT	sea	[tasik]	Moi
NASI	rice	[nasi]	Mappi Digul
PAGAR	fence	[pagar]	Lamma
ELOK	good, acceptable	[elok]	Uwimerah Bipak
SAMA	same	[sama]	Abui
WARUNG	shop, kiosk	[toko]	Abu i

The words in this section, other, come from a number of different semantic fields. However, a number of them have connections with Austronesian culture. Austronesian culture is characterized by maritime prowess, agriculture and rice cultivation and by trading. The related loanwords are LAUT 'sea', NASI 'rice', and WARUNG 'shop'. LAUT became tasik in the Moi Language. The Moi community live on the coast on Salawati Island, near Sorong, in the west of the Bird's Head. Rice is a staple food of the Austronesian people. The lexical item WARUNG 'shop', is connected with trade. The other items, ELOK 'good', and SAMA 'same', could be words used in conversation in trade settings, for example to express appreciation or to say a product is good or that one item is the same as another. The use of fences would have arisen in response to attitudes to land ownership which differed with the Non-Austronesian peoples.

The dominant semantic domain is that for numbers. The data includes 42 lexical variants of Austronesian number lexemes as loanwords in Non-Austronesian languages. This suggests that Austronesian and Non-Austronesian populations interacted in ways that required counting and calculating such as trade and barter to meet daily needs. This would occur when one group had an excess of some resource such as foods that could be exchanged for some other item. The borrowing primarily occurs in languages which are relatively accessible near or on the coast.

Words generally become loans in another language where there is no existing, local term for a new concept. The loans from Austronesian to Non-Austronesian languages therefore suggest the contact between cultures. For example, many of the Non-Austronesian languages were hunter-gatherers, while the Austronesians had a form of agriculture, and grew rice. The word for rice, *NASI*, is one such loanword appearing in the Mapi Digul language.

Although there are occurrences of words in Non-Austronesian languages becoming loans in Austronesian languages, the direction of borrowing is mostly the other way, from Austronesian to Non-Austronesian. There is only one loanword from a non-Austronesian language to Austronesian. It is *RAIMUNA* which was borrowed as alternative term for the word *jamboree*, as in scouting. The English loan *jamboree* appears in Indonesian, the *Kamus Besar Bahasa Indonesia (KBBI)* as 'jam.bo.re [n] pertemuan besar para pramuka' a large scout meeting. The loanword *raimuna* has found its way into the *KBBI* with the following definition, '*rai.mu.na [n] pertemuan atau kegiatan pramuka, berupa per-kemahan besar untuk tingkat penegak dan pandega*' scout meetings or activities, in the form of a large camp for scout leaders and scouts aged 21-25 years.

The examples of loanwords from Austronesian to Non-Austronesian languages are found in the semantic fields of (a) Family Relationships, (b) Clothing, (c) Metals, (d) Animals, (e) Numerals, (f) Plants, (g) Tools, and (h) Other. However, they are not restricted to these as there were cultural differences in other areas such as architecture, dance, clothing, and cooking. The presence of loanwords in these areas also suggests that these were probably innovations in Non-Austronesian culture.

Conclusion

Linguistic analysis of the languages of Indonesia and the Southwest Pacific areas reveals that the very large number of languages found there belong to either the Austronesian language family or one of a number of other, as yet indeterminate, language families that for convenience are amalgamated and referred to either as Papuan, suggesting geography and cultures, or Non-Austronesian, referring to the still inconclusive status of categorization of languages into a number of different language families.

The term Melanesia is used with reference to a geographical area, a cultural area, or a modern political grouping. However, there is nothing in the linguistic evidence, whether from historical linguistics or language typology studies that suggests that the countries which refer to themselves as Melanesian, namely Fiji, New Caledonia, Papua New Guinea,

the Solomon Islands, East Timor and Vanuatu, constitute a linguistic area, separate from neighboring territories, or that the majority of languages there are part of a language family which can be distinguished from Austronesian. In fact, linguistic analysis shows that, whatever differences in culture and history, the majority of languages in these countries belong to the Austronesian language family. The term Melanesia, therefore, is best used to describe a geographical region and a sub-regional culture of Oceania, but should not be used to refer to a linguistic area or a language family. The linguistic situation is therefore best seen as a multilingual situation with languages from two language families, Austronesian and Non-Austronesian.

The Austronesian language family is a language family with the widest distribution in the world, stretching from Madagascar in the west to Tahiti in the east. The ancestral homeland of the Austronesians is in Taiwan. Several thousand years ago, the early Austronesians dispersed southward from Taiwan through the Philippines and further through Kalimantan and Sulawesi, and then occupying the larger islands in the South, Sumatra, Java, with a clear migratory trend from west to east, eventually occupying all of the Indonesian archipelago. Subsequently, they travelled across the Pacific, moving from island chain to island chain until they had expanded to Hawai'i in the north, New Zealand in the South, and Easter Island in the east. During the Austronesian expansion, they came in contact with the Non-Austronesian people, whose ancestors had arrived much earlier. Over thousands of years, Austronesians and Non-Austronesians were in contact and linguistic study shows how languages and cultures changed, adapted, borrowed, migrated further, prospered and declined. The result is that the Non-Austronesians, who formerly were found all over the archipelago, became concentrated in the east of Indonesia. But the geographical distribution is more like a patchwork than a clear divide, and mixing and intermarrying led to further coming together of the two peoples over long periods of time.

If we look at language areas, the picture is not one of two large, clearly demarcated linguistic territories. It is rather more nuanced, with a complex patchwork of multilingualism, shaped by space and by time, and by contacts and accommodation over millennia. Within this complex geographical linguistic picture, the individual identities of languages, are also nuanced, the result of contact, change, and borrowing. Linguistics can reveal the larger patterns in this highly diverse mixture and can help us trace historical origins.

One striking finding from linguistics is that the countries which identify themselves as Melanesian have higher concentrations of Austronesian language use than in Indonesia. If we look at the number of Austronesian languages in each country expressed as a percentage

of all languages, Vanuatu is 96.42%, Caledonia is 92.30%, the Solomon Islands is 90.66%, Fiji is 80%, East Timor 75%, Indonesia 64.53%, and Papua New Guinea at 28.20%. We can look at it the other way around, with the percentage of Non-Austronesian languages in Indonesia being 35.47%.

Precisely because of this mix of Austronesian and Non-Austronesian languages in Indonesia, there has been an awareness from early on about the value of the local languages. In recent years, there have been moves for legislation to protect the smaller languages and preserve their culture and identity. This is because language endangerment has been recognized as a world-wide problem.

Indonesia is not the only country experiencing language endangerment. All the Melanesian countries except for Fiji all have languages that are already in the dying category. The numbers of dying languages are, for Vanuatu, 11, the Solomon Islands 8, New Caledonia 8, Papua New Guinea 37, East Timor 1, and Indonesia 75. Meanwhile, these countries also report of languages which have just become extinct.

The causes of language endangerment include disasters, conflict, attitudes, and pressures related to modernity and development. Small languages are also put under pressure by the growth of national languages, and also by lingua francas. Global languages or regional languages can also put pressure on local languages. The threat to the continued existence of local culture, identity and language is today existential. In particular, we are faced with two unstoppable trends: first the inevitable impacts of climate change on small communities and second, the impact of development and modernity, in particular the pressures caused by global corporations and businesses on land and resources. These pressures from global capitalism can only be countered with strong legal protections. Further, local communities cannot be isolated from change. If small communities want to embrace modernity, have their children learn the national language and own electronic goods and cars, and do not want to lose their identity, then a middle way needs to be found.

Small Pacific island states in particular face the challenge of stimulating development, improving education, supporting equity. They must also deal with the growing impact of climate change and have security issues associated with the growing importance of the Pacific-East Asian region. They cannot do this alone and they cannot do it as a group separated from regional partners. Indonesia today has a creditable record in human rights and democracy. It is also a reasonable partner in trade and international affairs. Indonesia is therefore well-placed to assist neighboring states in facing the many challenges that threaten nations today.

Thus, all countries should stand together to preserve language diversities, which retains cultural values including ethics and morals. Efforts being made should consider the balance between the strength of the national language and the existence of regional languages, namely either the local language of the Austronesian and non-Austronesian families. The existence of languages that are endangered is, in fact, tests this balance.

In this regard, these seven countries should strive to work together to unite the different skills from the field of genetics, linguistics, archeology, history, cultural anthropology, physical anthropology, paleoclimatology, and paleography to build an accurate profile of the Austronesian and Non- Austronesian people in regional island nations.

What is needed is the better implement values such as mutual respect, tolerance, human rights, and recognition of cultural identity. Indonesia has demonstrated that it can deal with conflicts, disputes and grievances. It is also beginning to demonstrate that former antagonists can live together and prosper when there is peace and stability and the framework of law.

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CHAPTER 4

Ninuk Kleden Probonegoro

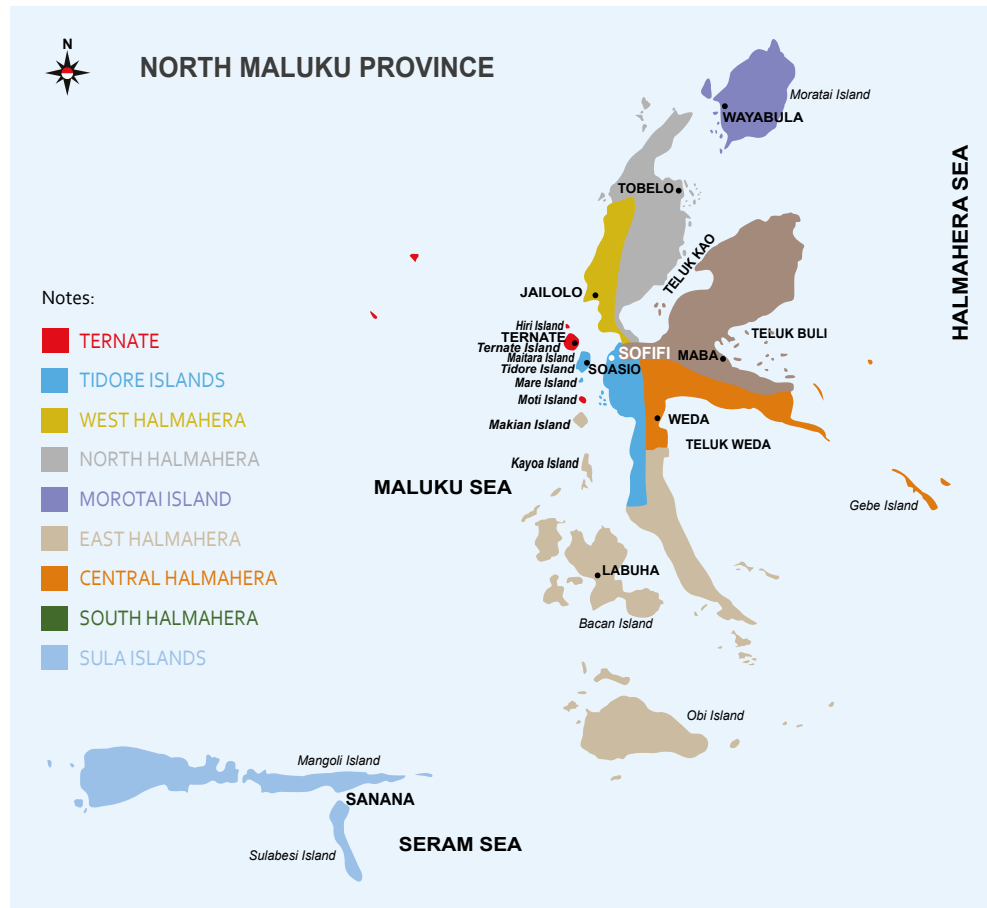
Melanesian Languages in North Maluku, Indonesia

Introduction

This essay is based on a language approach, though not to deny the importance of historical, socio-economic, political and local cultural factors, which together contributed to the formation of language there. Firstly, the northern Maluku region will be described, both its administration and language followed by a brief explanation of Melanesia as well as linguistic issues that arise from the convergence of the two regions.

North Maluku

The North Maluku region has changed its administration several times. During the New Order era, *Moloku Kie Raha*, namely the unity of the Sultanate Bacan, Jailolo, Tidore and Ternate, was divided into two districts, namely the North Maluku district with Ternate as its capital and the Central Halmahera district with Soa Siao as its capital, as well as the administrative city, namely Ternate city with Ternate as its capital. Then, based on Law No. 46 year 1999, the North Maluku district was transformed into North Maluku province on October 12, 1991 with Ternate as its capital, and then on August 4, 2010, the capital was moved from Ternate to Sofiri which is located on Halmahera Island. North Maluku Province oversees seven districts and in its development the province is experiencing some expansion. At the present time, the North Maluku Province has 10 districts, namely West Halmahera district (Jailolo), Central Halmahera (Weda), North Halmahera (Tobelo), South Halmahera (Labuha), East Halmahera (Moba), Sula district (Sanana), Morotai districts (Daruba), Taliabu district (Bobong), Temate city (Ternate). and Tidore Islands (Soa Siu), with its capital Sofifi. The map below shows selected areas of North Maluku.



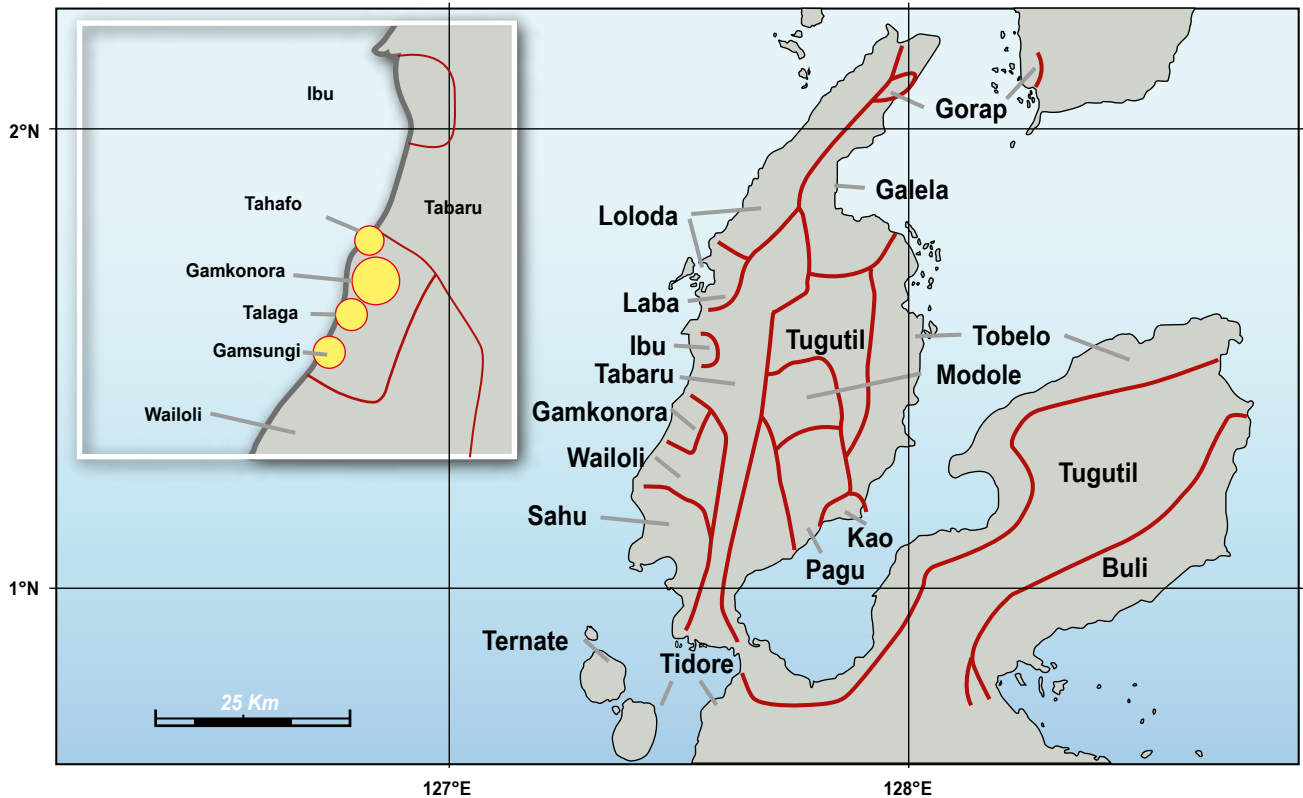
Map of North Maluku Province.

North Maluku Province

If we compare the first map of the administrative area of the North Maluku province with the second map of language Ethnologies in North Maluku, we can identify what languages exist in the administrative areas.

For example, on Ternate Island where the city of Ternate is located is a center of Malay Ternate whose inhabitants are Ternate language speakers, and the Tidore Islands city which is marked blue on the map is the territory of Tidore language speakers. Meanwhile, West Halmahera district with its capital Jailolo is Sahu language group area with Waioli and Gamkonora sub-group. The language map still includes the mother tongue language in which LIPI research was conducted in 2012. There was only one speaker who was about 80

years old. In 2013, a friend visited him and noticed that he was sick and confined to bed rest. The Galela language is scattered throughout North Maluku province. On Obi Island, South Halmahera district, the Galela language is found at three points. In addition, this language is also spoken in the Morotai Island district. So, to know which language is used in certain administrative area in North Maluku, the two maps should be viewed simultaneously.



The Map of Languages in North Maluku.

Learning languages in this area is quite difficult because of four things. Firstly, from the point of concept creation, linguists create linguistic categories according to their individual approaches. Voorhoeve (1983: 19), for example, said that the language group of West Papua was divided into North Halmahera language group consisting of (i) a sub-group of South Halmahera (Southern Sub-Group), and (ii) a sub-group of North Halmahera (Northern Sub-Group) But Grimes and Grimes (1984: 48) use the term Superstock under

the stock of (Phylum), namely North Halmahera Superstock which is derived into stock, namely North Halmahera Stock; but parallel to the stock. North Halmahera is the language of the West Makian and not of West Makian Stock. Based on Grimes and Grimes' categories, Ternate-Tidore are united with Sahu in one sub-group, while there is a group of inland languages (mainland group) with three sub-groups under its structure (Galela-Loloda, Koa, and Tobelo), as well as one other language that is Tobaru. The existence of different methodological perspectives is quite difficult for those who are conducting a study there.

Secondly, Non-linguistic aspects are one of the difficulties in learning the language of the region in this area. Muhlhausler found that language was embedded in socio-historical, political and economic ties that are related. The language ecology concept proposed by Mühlhäusler (2000: 331) may be overlooked because the main concern of this writing is the region of North Maluku. Muhlhausler considers that the languages of this region have affinity in socio-historic, political and economic factors, which all can have an impact on the complexity of language.

Thirdly, in terms of linguistics, North Maluku is a contact point between the Austronesian group and non-Austronesian. On the second map the Austronesian language group shown in yellow is called Central and Eastern Polynesian-Malay while the non-Austronesian languages in the map are also known as West Papuan and highlighted in a light purple with black dots in it.

Fourthly, other difficulties also come from the concept of Melanesia itself. East Polynesian-Malay based on Blust's classification (Grimes and Grimes, 1984: 40) is subdivided into two regions namely South Halmahera and West Papua, (ii) as well as islands in the Oceania region namely Melanesia, Micronesia and Polynesia. Linguistic conditions show that the Melanesian language including languages in Micronesia and Polynesia are in the Austronesian language group which according to Blust is Eastern Polynesian-Malay.

The issue discussed in this paper is to question how Melanesia could possibly be included in the Austronesian language group, especially the Eastern Polynesian-Malay language group represented by the North Maluku which is non-Austronesian.

North Maluku and Language Research

North Maluku is not an area that is isolated, both from the perspective of the bustling traffic of trade that took place since the 15th century as well as from the academic perspective because this region is an interesting research object for both linguistic and language, social, cultural, archeological and historical studies.

Since the late 19th century, this area has attracted the attention of linguistic researchers, although the data are mostly taken from missionaries. In the early 20th century, missionaries made dictionaries, stories with religious characteristics, short grammars, vocabulary lists, and comparative studies (Grimes and Grimes, 1984: 36, Voorhoeve, 1983: 13). The ethnolinguist who also did research in this area such as Masinambow later wrote his dissertation (Masinambow, 1976) followed by Watuseke, Yoshida and Wada who wrote their research reports in 1980. Equally important is the project jointly organized by LIPI and Leiden University about language, society and culture in North Maluku and Raja Ampat in Papua. The research results were presented at a seminar held in Ternate in 1979 and in Jakarta in 1981. The edited papers were published in LEKNAS Bulletin special issue in 1983 and 1984.

LIPI Social and Cultural Research Center (P2KK) conducted research on the theme "Endangered Languages and Minority Ethnic Group in Eastern Indonesia" from 2011 to 2014. This theme was represented by a study of the Oirata language with 50 speakers in Kaisar Island, in Alor which was represented by the Kafoa language (800 speakers) and the Kui language with 833 speakers as identified during the research conducted in 2011. The North Maluku district was represented by North Halmahera namely the Karo language (with less than 100 speakers in 2011) and the Pagu language (with 3,350 speakers as mentioned in *Ethnologue*, Lewis (2009), and 2,000-3,000 speakers as recorded in (Grimes and Grimes, 1984: 52). In West Halmahera, the research looked at the Gamkonora language with 1500 speakers (Lewis, 2009). These three languages are all found in the non-Austronesian language group.

Aside from these three languages as the subject of research by LIPI in North Maluku, in the region languages still exist which belong to the other non-Austronesian language group; (i) Galela-Loloda language group includes Galela language (20.000-25.00 speakers) Laba, Loloda (13,000 speakers), Modole, Pagu (2,000 speakers), Tobaru (South Tobaru 3,000 speakers; North Tobaru 12,000 speakers), Tobelo (20,000-25,000 speakers) and Tugutil language (316 speakers according to Martodirjo's research.¹² (ii) Sahu language group consists of Gamkonora language (1500-2000 speakers) Waioli, Ibu (in 2012 only one speaker left who is old and sick), (iii) Ternate-Tidore language groups; Ternate language (50,000 speakers), Tidore (43,000 speakers); (iv) Beyond the three previous groups is West Makian language (12.0000 speakers).

Eastern Indonesia with a smaller population than the Western Indonesian region has more ethnic languages (vernaculars). The following table describes the issue in detail.

Tabel 1. The Comparison of Number of Population and Languages in Indonesia. Source: Imelda (2010: 1)

Location	Sumatera	Java & Bali	Kalimantan	Nusa Tenggara	Sulawesi	Maluku	Papua
Number of population	43,309,707	123,573,000	11,331,558	7,961,540	14,111,444	2,549,454	2,220,934
Number of languages	33	20	74	76	114	128	274

The table shows that there is not a straight comparison between the total population and the number of languages. Indonesia's western region has a high population but few languages while the eastern part of Indonesia has low population but quite many languages. The languages that are spoken in the western part of Indonesia are from the Austronesian language family while many of the languages spoken in the eastern Indonesian region belong to the non-Austronesian language family, except languages in the southern Halmahera.

In Nusa Tenggara, there are 76 languages (with a population of 7,961,540 people) Sulawesi has 114 languages (with population of 14,111,444 people) Maluku has 128 languages (with a population of 2,549,454 people) and Papua has 274 languages (with population of 2,220,934 people). Thus, the farther to the east region of Indonesia, the more the number of languages whereas the number of people are few. This means that a lot of languages are only spoken by a few speakers. Such a condition is highly unfavorable for these languages.

Melanesia

The previous description has shown that Melanesia is included in the Austronesian language group and specifically included in the classification of East Polynesian-Malay. But a French explorer, Jules d'Urville in 1812 used the term Melanesia for racial types among ethnic groups in Polynesia, the Micronesian Islands and the Melanesian islands. Additionally, Jules d'Urville considered Malaysia as an area that extends from the western Pacific to the Arafuru Sea and to the north and northeast of Australia. In this case, Melanesia is used to refer to a geographical region. Thus, Melanesia may refer to several things: a geographical region, race, culture and language.

The Connection Between Language and Culture

There are several views of the relationship between language and culture as expressed in an lingua franca. In this section we will discuss about the role of a lingua franca, namely the Ternate language and Ternate Malay which concern not only the issue of culture but also their influence on culture and the local government system.

Language and Culture: The notion of linkage

There are several perspectives that see the relationship between language and culture, among others, the perspective that is put forward by cultural experts in the country, Koentjaraningrat (1985) and Indonesian ethnolinguistic expert, Masinambow (1985). In addition, there are many researchers from outside Indonesia such as Kramsch¹⁶ and others.

Koentjaraningrat (1985: 202-204) assumes that language is one of the elements of culture. Thus, the characteristics in the language will also be found in other aspects of the culture. Meanwhile, according to Masinambow, the relationship between language and culture can be coordinative or subordinative (Masinambow, 1985: 173). This means that language can be used to see the culture or culture can be used to highlight language. For Masinambow, characteristics that are found in the language will also be found in other elements in the culture. Conversely, if the language is considered essential, then the language becomes the determining pattern of culture.

The relationship between language and culture mentioned above brings out a kind of thinking related to language functions in culture as proposed by Kramsch (1998: 3). (1) Language can express and create experiences that exist in a cultural reality. This culture experience is stored in the system of human cognition and through speech; it will be expressed as a fact, ideas and events. (2) Language embodies cultural reality through the speaker's tone, accent, gestures and facial expressions. (3) Language is a system of signs that reflects not only cultural values but also symbols of reality.

Ternate and Ternate Malay: Lingua Francas in North Maluku

Ternate and Ternate Malay were widely used lingua francas, a common means of communication between speakers of other languages. The Ternate language belongs to the Austronesian language family and is spoken as a lingua franca in the kingdom of Ternate (which had not embraced Islam) while the Ternate Malay language belongs to the Austronesian language family and is used as an lingua franca especially in the Sultanate of Ternate with Islam as its official religion.

Talking about lingua francas in North Maluku and even in the Maluku region in general cannot be separated from local politics for example the kingdom period, sultanate period, the Dutch colonial period, and the independence period of the moment.

Ternate Kingdom and Sultanate

The kingdom of Ternate is normally described as starting with the first king, Mashur Malamo (1257-1277). Malamo played a key role in the origin of this largest kingdom of Maluku (Amal, 2009). The oldest kingdom in Maluku is Jailolo. The embryo of the kingdom of Ternate came from the conflict between Jailolo and local authorities and this led to the massive exodus in the Halmahera direction in 1250. The people sought safety in Tobana in the Gamalama mountaintop. Their leader was called *momole*. Around 1254, a new settlement was built in a coastal area of Foradiahi to accommodate the increase in political refugees from Halmahera. Furthermore, the newcomers led by Momole Ciko built a third settlement in Sampala in a coastal area as well. In 1257, the inhabitants in these three regions negotiated to unite the regions. The result of deliberations was to appoint Ciko as the first king of Ternate and he changed the title of *momole* into Kolano. He was known as Mansur Malamo, the first Kolano of the Ternate kingdom. During the Ternate kingdom era in the 13th century, the Ternate language was assumed to have been used as an lingua franca considering the existence of this kingdom.

A century later, Kolano Cili Arya also known as Kolano Sida Arif (1322-1331) was the leader that united the four kingdoms in Maluku then known as Maluku Kie Hara including Ternate, Tidore, Bacan and Jailolo. The expansion of the Ternate kingdom was firstly carried out by Kolano Ngara Malamo assisted by the Fala Raha group of five clans: Tomaito, Tomagola, Limatahu, and Marsaoli.

Language contact between North Maluku and the migrants started in the 14th century. The merchants of North Maluku according to Empu Prapanca traded with the Majapahit through the ports of Tuban, Gersik, Sedaya and Jaratan. At that time, North Maluku became a place on the spice trade route traversed by spice traders. This was stated by Tjandrasmita in an article published in 2001.²¹ The Chinese and Arab traders also passed this route with their pottery jars and silk.

Zainal Abidin (1485-1500) was the 19th king and is regarded as the first Sultan of Ternate because he laid the foundations of Islam during his administration. Previously, Ternate was led by a king called Kolano (Putuhena, 1980). Since then Ternate became a sultanate based on Islamic government.

The Sultanate of Ternate expanded rapidly and in the 15th century, the Tomaito clan sent an expedition to Sula which then fell to the sultanate of Ternate and then the clan was appointed as *Salahakan* (governor) of the islands of Sula and Sulabesi. In this century, the presence of the Spanish, Portuguese, and Dutch began to intervene the kingdoms in North Maluku and improve language contact between speakers of languages in Maluku with the settlers. Communication with the immigrants was possible by using a *lingua franca*. In the kingdom of Ternate, the *lingua franca* spoken was Ternate. This language had to be used in the colonized areas of Ternate kingdom so Ternate Malay was used as an *lingua franca* between speakers of the local language and immigrants from Europe although it did not deny the existence of the Ternate language in the territory of the Ternate Sultanate.

According to Van Fraassen, (1980: 104), in 1524 Sangaji Gamkonora became a vice sultan of Ternate in Waioli, Ibu, Galela and Tobelo in the northern part of Halmahera.²³ At that time, the Ternate language was also used in the territory of the Sultanate of Ternate because the vice sultan was always in his territory and he and his staff did not speak the language of his native region. It seemed that the language affected the regions of Ternate. The institutions and systems of governance of Ternate Sultanate model were also adopted in North Maluku (Fraassen, 1980: 105). The Sultan's assistants were Jogugu i.e. chief assistant of sultan, Kapitalau (known as Kapita) responsible for issues related to war, and Hukom who handled domestic issues while Hukom Sangaji dealt with problems in the sultanate's vassal areas (Putuhena, 1980).

An important element in the history of the sultanates of Ternate was Sangaji Gamkonora's ruling Galela, Tobelo and Ibu until the middle of 16th century. The system of government, language, and culture refers to the sultanate of Ternate. The Ternate language was spoken in these areas as Ternate sultanate in North Maluku always appointed Ternate people to take part in the government to oversee its vassal.

In the 16th century, the Tomagolas expanded Ternate territories to Buru, Seram and the surrounding areas then proceeded to Ambon. The Tomagolas later became *Salahakan* (governor) in Ambon. Even in the reign of Sultan Baabullah (1570-1583), Ternate imperial power extended to Mindanao in the north, Bima in the south, Makasar in the west and Banda in the East (Amal, 2009: 42).

Ternate Malay began to dominate not only as an *lingua franca* in trade but also in education, especially around the time the Dutch government began to explore this area. The Dutch government required that students speak in Ternate-Malay.

The Ternate language became the lingua franca in the era of the Ternate kingdom in North Maluku. However, Ternate Malay did not become a language of communication but rather became a mystical language that referred to religion and language with cultural references.

For the Gamkonora people living in West Halmahera, the Ternate language appeared in many *dolabololo* which was known as a mystical language. That was to say that the Ternate language was used to utter mantras or expressions of religion which were not open to the public. Meanwhile, across North Maluku, the Ternate Malay language remained popular as an lingua franca. People in North Maluku said that they could speak Indonesian but what we heard was Ternate Malay. Thus, Ternate and Ternate Malay languages served as lingua francas in North Maluku.

There are two things that will be discussed in the following section: (1) the complex linguistic situation in North Maluku, and (2) language kinship that can demonstrate linguistic ties among languages there.

The Meeting of Two Language Families in North Maluku

Halmahera Island, a part of North Maluku province territory, exhibits a complex linguistic situation because of three things: (1) Halmahera is the meeting place between Austronesian language speakers living in South Halmahera and non-Austronesian language speakers living in North Halmahera (Masinambow, 1980, Taber, 1996). Counts for the number of languages in the region were 12 Austronesian languages and 15 non-Austronesian languages (Grimes and Grimes, 1984: 43, 48); (2) in West Halmahera particularly, the Gamkonora people with 1,500 speakers (Lewis et al., 2015), could be a language case that could not be separated from the complexity of socio-cultural conditions. The Gamkonora language has both non-Austronesian and Austronesian language features; (3) The socio-cultural conditions are complex, not only because of the two language families in the region but also because of the similarity of linguistic characteristics spreading more widely even in Papua, especially in the Bird's Head area. For Masinambow, language alone cannot be used as a sign of ethnicity. How would it be if a lack of compatibility between cultural homogeneity and linguistic heterogeneity? Because, if the linguistic differentiation was based only on vocabulary while linguistic structure spread beyond ethnic region, then this could be considered as a memory during the proto language only (Masinambow, 1980: 72).

The focus here is not so much about ethnic affinities with the language as proto linguistic assumptions questioning the spread of vocabulary and grammatical structures beyond ethnic boundaries that could be used as a reference to see the geographical linkage

between Halmahera and Papua linguistic affinity between non-Austronesian language group and the Austronesian group, and kinship of mythology narratives (about eels and snakes) among speakers of different inhabitant areas of origin who were even separated by Halmahera sea.

The Austronesian Language Family

The spread of this language family is very wide: from Taiwan and Hawaii in the north, to New Zealand (Aotearoa) in the south, and from Madagascar in the west, to Easter Island (Rapanui) in the east.³³ Blust, splits the Austronesian language family into two major groups; namely (1) languages that are found in Formosa (Taiwan) namely Atayalic, Tsouc, and Paiwanic, and (2) languages outside Formosa, namely Malayo-Polynesian.³⁴ Languages in this consist of three groups; namely (1) Western Malayo Polynesian including the languages in the Philippines and western Indonesia, (2) Central Malayo Polynesian including languages in the lesser Sunda islands, Sumbawa, South and Central Maluku and (3) East Malayo Polynesian that includes South Halmahera and the western Birds Head and the surrounding islands in West Papua. According to Blust, Eastern Malayo Polynesian, along with its parts, is referred to as the group where the languages of Melanesia are found. In other words, for Blust the Austronesian language group is a group of Malayo Polynesian languages outside the island of Formosa and the Melanesian languages are part of the East Malayo Polynesian language groups. However, according to Grimes and Grimes (1984), the Central and Eastern Malayo Polynesian language groups are to be considered as the source area for the Melanesian languages.

The language groupings by Blust are different from those based on lexicostatistics by taking into account basic vocabulary similarities as practiced by Grimes & Grimes.³⁶ Grimes & Grimes researched the languages of North Maluku. Therefore, the scope of attention was more specialized than what was done by Blust. The calculation of lexicostatistics make Grimes and Grimes (1984) data more detailed and valid. According to Blust, the groups of West Malayo Polynesian language are Sangir, Buton, and Bajo. The Malay language in North Maluku was reportedly brought by migrants. Central Malayo Polynesian language groups consist of Sula, Mangole, Taliabu, and Bacan languages. While the Eastern Malayo Polynesian language group consists of three groups of languages (stocks), namely (1) the language group in West Halmahera which is composed of two sub-groups of languages: East Makian and Gane, as well as the Weda language sub-group consisting of Weda and Sawai languages; (2) the East Halmahera language group consisting of Patani, Maha, and Buli languages; and (3) the Gebe language in Papua.

Grimes & Grimes's research on the Austronesian language group in North Maluku showed that both the Central and Eastern Malayo Polynesian languages can be found in this area while Western Malayo-Polynesian was found in this region supposedly brought by the migrants. Grimes & Grimes calculations based on lexicostatistic data in North Maluku showed that the three groups of Malayo-Polynesian languages had basic vocabulary similarities of about 15-25%. The linkage between Central Malayo-Polynesian was represented by Mangole language of Sula islands with Maba language which was considered to represent Eastern Malayo-Polynesian language groups in South Halmahera, indicating 17% basic vocabularies similarities. In contrast, the Malayo-Polynesian language group which was represented by the Pamona language in Central Sulawesi had the same basic vocabulary by 16% only with the Maba language known from East Polynesian Malay group. However, the relationship between the Mangole language (Central Malayo-Polynesian) and the Gebe language in the Raja Ampat Islands, Papua, seemed closer since the two languages had a common basic vocabulary of 43%. Both of them were in the same phylum, namely East Malayo-Polynesian or Melanesian. The affinities of other languages are shown in the following figure Grimes and Grimes (1984: 40).

The grammatical feature of Austronesian language group is subject-verb-object (SVO). The following example is taken from a study of Gamkonora speakers in West Halmahera by Bowden (2013: 92-93). *Tagi o 'o*. *Tagi* shows the first person pronoun (I), and *o'o* is in the direction of the sea. So, *tagi o'o* means I go to the (direction) of the sea. The sentence does not mean I go to the sea (as understood in Indonesian) because the direction intended by the speaker of Gamkonora is a metaphorical sense. Another example is *Tagi tala* which means in Indonesian: "I go down" "down" as well as "to sea" shows the direction metaphorically. Such unique ways of giving directions are a characteristic of non-Austronesian group languages.

Non-Austronesian Language Family

In 1915, Van Der Veen stated that languages in North Halmahera had the characteristics of non-Austronesian which were also similar to the characteristics of languages in West Papua, especially in the Bird's Head region. Since that time, people began to notice the link between two areas of the non Austronesian language family.

Grimes and Grimes' (Grimes and Grimes, 1984) research used a lexicostatistic method to measure language kinship by comparing the percentage of similarity within the basic vocabulary. The greater the percentage of similarity of the basic vocabulary, the closer

the relationship is thought to be between any two compared languages. The smaller the percentage of similarity of the basic vocabulary, the more distant the relationship between the two languages if both exist at the level of language group. Similarity of vocabulary is assumed to show that the languages are related at the level of dialect or possibly language sub-group while a small percentage of vocabulary similarity indicates that the compared languages exist at the level of language.

The non-Austronesian language group according to Grimes and Grimes (1984: 48) is a phylum of West Papuan which is classified as a language group.⁴⁰ In North Maluku, the non-Austronesian language group is represented by: (1) the super stock language group of North Halmahera (North Halmahera is also used to refer to the language group), and (2) the super stock language group of West Makian. The super stock is a group of languages from the same group, namely Papua Barat. In other words, when we talk about northern Halmahera, it can mean a super stock or it can also mean a group of languages a stock. According to Grimes and Grimes (1984: 47), West Makian language classifications remain controversial. West Makian is classified as a super stock separate from the North Halmahera super stock. However, Watusaka and Voorhoeve (date) argue otherwise. Both of them classify West Makian within the North Halmahera stock.

If we look back to a classification according to Grimes & Grimes (date), North Halmahera as a language group is divided into six sub-groups: (1) Ternate-Tidore; (2) Sahu (Sahu, Gamkonora, and Ibu languages) a sub-group of languages from the languages of mainland SEA; (3) Galela-Loloda; (4) Koa river languages (Modole, Pagu, and Kao); (5) Tobaru (North and South Tobaru); and (6) Tobelo (Tobelo and Tugutil) (Grimes and Grimes, 1984: 48).

One of the defining features of non-Austronesian languages is the grammatical structure of subject-object-verb (SOV). Others are the appearance of gender in nouns and complex concepts of space and direction (Bowden, 2013). Some examples are given below.

A Complex Linguistic Situation: Languages in Contact

The linguistic situation in North Maluku as represented by North Halmahera languages is complicated because of two things: first, linguistically there had been a meeting between the Austronesian languages with non-Austronesian language group. Second, non-linguistic factors namely socio-cultural, economic and political situation have contributed to the linguistic complexity. This section discusses the complexities caused by linguistic factors.

In North Maluku, there are two main language areas, Austronesian which is spoken in Southern Halmahera and non-Austronesian which is spoken in Northern Halmahera.

Languages from these two families are in contact with each other and this results in language change. Bowden's (2013) research on the Gamkonora language in West Halmahera, which belongs to the Sahu sub-group of language according to (Grimes and Grimes, 1984), exemplifies such processes of change.

The Gamkonora people live in four villages in West Halmahera, Southern Ibu district. Gamsungi village (a village in southern part) has 81% basic vocabulary similarities with Waioli language, so it may be said that the Gamkonora language in Gamsungi village is a dialect of the Waioli language. Gamkonora people are known to live in the Gamkonora village of Talaga, and in the north of Tahafo village. Three villages there have similar dialects. However, the villagers readily say that the manner of speaking of the Tahafo people is rough.

The Gamkonora language belongs to the North Halmahera language group. It "can be seen to be basically non-Austronesian in origin" (Bowden, 2013: 80) because the vocabulary of this language is essentially similar to non-Austronesian. However, the language is losing its non-Austronesian characteristics, in particular its grammatical structure is shifting to SVO, which is characteristic of Austronesian languages, and it does not have pronouns showing gender characteristics (gender pronoun is a characteristic of non-Austronesian language). Another characteristic of non-Austronesian languages are complex systems of pronouns for describing space and directions.

An example of a sentence with SVO grammatical structure from Bowden (2013) is

simata ngenetagi pasae

we all go market

We all go to the market

This is typical of languages in the Austronesian language family.

Another example can be given for the language of space and directions.

O'o isa iye tala

Sea land to the top down

Words that indicate directions can be used with nouns. If someone asks another person to put a glass on the table and the table was in the direction of the sea, then she will say "put the glass at the sea (direction). Directions also use "upwards" in a specific way. The sultan's palace is 'above' and 'down' always means away from the sultan's palace. So in

the Gamkonora language (with speakers located in the Gamkonora village) going south will always be said 'up' because it leads to the Sultan of Jailolo, to the Sultan of Ternate, and to the Sultan of Tidore. Meanwhile, if we go north, say to Ibu district, then a speaker of Gamkonora will always say "down". All distances beyond areas that they know (Halmahera) including Java are called "sea".

The following is an example of conversation between Ratih (12 years old) with her father. She wanted to go after her friends who had been waiting for her.

Dong 'tunggu' di lao.

They wait at sea

In this case, the friends were not at or in the sea but waiting in someone's house which was located, from the perspective of the speaker, in the direction of the sea. So, 'di lao' can mean on the side of the road, in front of the house or under trees. Everything leads to the sea. The sea is located in front of Ratih's house. This sentence contains elements of Austronesian grammar mixed with the complex direction terms from non-Austronesian language grammar.

Another example, from Tondo (2013), of SVO sentence order can be taken from the Kao language which is also included in Sahu sub-group of North Halmahera language group.

Ngoi ta-owol igong

I squeeze coconut

In the Gamkonora language, *ngoi* is the first person pronoun, 'saya', and *igong* is coconut. In this sentence the verb to squeeze 'peras' is paloso. This is an SVO word order, typical of Austronesian languages.

Language Kinship in North Maluku

North Maluku society is a multilingual society. Language can convey identity. In North Maluku, we can infer that as it has 31 languages, it also has 31 ethnic groups. Multilingualism is common. An example, collected during the study, can be given. There was a change of two sub-district heads in the sub-district of South Ibu. Both of them were women. The sub-district head we knew in 2011 was from Tobaru but she was fluent in the Gamkonora language. She was then posted to Sahu sub-district and her successor, who was originally

from Sahu, was posted in South Ibu sub-district. She did not spend a long time learning to speak Gamkonora and Waioli, two languages spoken in the area of her administration, and neither did the sub-district head who came from Tobaru. Language learning is made easier when the languages are related, as was the case here. When the degree of difference of one language variety is only at the level of dialect, then learning is easiest.

Grimes and Grimes (1984) did research on the kinship of languages in North Maluku using lexicostatistics based on the degree of similarity of the basic vocabulary of two or more languages. Based on this, degrees of language kinship can be determined from language family to dialect. Based on the percentage of similarity of the basic vocabulary, languages in North Maluku can be grouped into two families, Austronesian and non-Austronesian. The degree of language relatedness can be seen in the following chart.

Language Kinship Chart Based on Vocabulary Similarity

MAN																					
SUL	72	SUL																			
GEB	15	18	GEB																		
PAT	13	13	45	PAT																	
MAB	17	17	43	70	MAB																
BUL	14	16	42	51	65	BUL															
E-M	14	15	27	36	33	33	E-M														
TID	9	10	7	9	11	7	13	TID													
TER	9	9	6	8	9	9	14	75	TER												
GAM	5	7	8	10	11	10	13	49	61	GAM											
SAH	6	6	7	8	10	10	13	48	55	72	SAH*										
WAI	7	8	8	9	11	11	11	49	55	74	80	WAI									
GAL	6	7	6	7	6	6	10	45	58	44	44	46	GAL								
LOL	6	7	8	5	6	4	9	44	54	45	47	48	76	LOL							
KAO	8	9	7	9	9	11	10	50	54	61	64	62	64	68	KAO						
PAG	7	6	6	6	7	7	8	42	49	53	56	59	62	70	82	PAG**					
MOD	6	6	6	7	7	7	7	38	42	50	52	56	61	67	70	80	MOD*				
TBR	5	6	6	6	7	5	8	39	47	48	49	55	59	63	66	69	71	TBR*			
TBL	6	8	8	8	9	8	7	37	45	50	48	53	60	71	67	70	67	63	TBL*		
TUG	6	9	7	6	6	6	9	32	39	37	40	47	55	57	54	61	66	64	78	TUG	

Source : Grimes and Grimes (1984: 41)

Linkage among languages in North Maluku is determined based on proximity similarity of basic vocabulary. It is assumed that the greater the similarity within the basic vocabulary of the languages being compared, the more closely related. Grimes and Grimes (1984) propose there are seven categories of language kinship based on vocabulary similarities as follows:

Table 2: Language Classification
Based on Vocabulary Similarity Percentage

% Vocabulary Similarities	Classification
0-15%	Language Family
15-25%	Super stock from the same family
25-45%	Stock of the same Super stock
45-60%	Group of languages from the same stock
60-75%	Sub-group of the same language group
75-80%	Languages of the same sub-group
Above 80%	Dialect

Source: Grimes and Grimes (1984: 39)

This language kinship chart is quite important for example to answer two previous cases that questioned why sub-district head arrival from Sahu could speak Gamkonora and Waioli easily. In Chart 1 compiled by Grimes and Grimes (1984), to the left of the chart listed SAH (an abbreviation of Sahu) draw a straight line down to the word GAM (an abbreviation of Gamkonora) and there listed number 72. This means that there is 72% basic vocabulary similarity between Sahu language and Gamkonora language. One or both of them are in one sub-group of Sahu language group. Furthermore, to determine the kinship ties between Sahu language and Waioli language, the same procedure can be performed. Draw a straight line from HAI to SAH, you will find 80 similarities of basic vocabulary. Thus, there is 80% similarity of basic vocabulary between Sahu language and Waioli language. Both of them are in one group of sub-group of languages.

This is why the sub-district head who comes from Sahu, theoretically speaks Waioli more easily than Gamkonora language because Waioli language is a dialect of the Sahu language sub-group though Gamkonora language itself is still one language group as well. As for the sub-district head who comes from Tobaru, from the point of lexicostatistics, he seems to have more difficulty in understanding the Gamkonora language (48%

similarity in the basic vocabulary) and the Waioli language (with 55% similarity of the basic vocabulary). However, there are non-linguistic aspects which influence things. In this case, the sub-district head socializes a good deal with people who use the languages and this is likely to contribute to her bilingualism.

The Ternate language is related to a number of other languages, especially to the Tidore language. Ternate has a fairly large number of speakers (50,000). It is used as an lingua franca and has had a major influence on other languages in North Maluku. Currently in Gamkonora, the Ternate language is used only in religious recitations, in *dola bololo* and *pantun* poems. The Ternate Malay language is better known as an lingua franca. In comparison with the Tidore language which has 43,000 speakers spread across the island of Ternate, Kayoa, Bacan, Obi Island and the west coast of northern Halmahera, Ternate-Tidore language kinship has 75% similarity of basic vocabulary. For Grimes, Ternate and Tidore language are included in a sub-group of languages that is related at the level of dialect.

As an illustration, the Ternate language relationship to the Sahu language is quite close with 55% similarity in basic vocabulary, while the language relationship between Tidore language and Sahu language, the similarity in basic vocabulary amounted to 48%. The level of relatedness between Ternate and the Waioli language also reaches 55% similarity in basic vocabulary. These languages are in one language group of the same stock. Another example is the kinship between Maba language of South Halmahera that belongs to the Austronesian family's East Malayo-Polynesian branch, and the Mangole language (Central Malayo-Polynesian branch in the Austronesian family) with 17% similarity in basic vocabulary. This means that both languages are Malayo-Polynesian. Another example is the relatedness between Gamkonora language which is in the non-Austronesian language family with the Mangole language which is an Austronesian language, only 5% of their basic vocabulary is the same. It means that the Gamkonora language is related to Mangole language at the level of language family.

The following chart shows the kinship of Sahu language sub-group with Sahu-Tala'i and Sahu-Pa'disua dialects with Gamkonora language and Waioli language.

Figure 2: Sahu, Waioli and Gamkonora Language Kinship



Source : Grimes and Grimes (1984: 51)

As shown in Figure 2, the relationship between Gamkonora language and Wayoli language is significant (74% similarity of basic vocabulary). This is similar to the degree of relatedness between Gamkonora and Sahu (72% similarities of basic vocabulary). If the Sahu language is split into two dialects; Sahu Sahu-Talai and Sahu-Pa'disua, then the Gamkonora language is closer to Sahu-Pa'disua (73% similarity vocabulary) than to Sahu-Tala'i with only has 70% vocabulary similarity.

The relationship between Gamkonora and Waioli is closer than with either Sahu Tala'i or Pa'disua because Gamkonora and Waioli are in the same language group with the basic vocabulary similarities by 74%. It can be concluded that Gamkonora and Waioli belong to one language group with two dialects as well as those between Gamkonora and Sahu. It's just that the relationship between Waioli and Sahu is closer than the relationship between Gamkonora and Sahu, especially with Sahu-Pa'disua. But the kinship of Sahu language with language groups of Ternate-Tidore is far enough. From the chart made by Grimes and Grimes, it is known that vocabulary similarities between Ternate and Sahu language are only 55% as well as the kinship between Ternate and Waioli language that is only 55% while the kinship between Sahu and Tidore languages is further because it has only 48% basic vocabulary similarities. The question is why Sahu language of Padi'sua dialects is more closely related to Gamkonora language. This is dealt with below.

The use of the figure proposed by Grimes and Grimes is helpful to explore degrees of language relatedness. It can help explain why Waioli speakers can understand Gamkonora and vice versa. Waioli and Gamkonora language speakers can also speak the Sahu language because both of them are dialects of Sahu.

Thus, the description by using the chart proposed by Grimes and Grimes as mentioned above is very useful for demonstrating degrees of relatedness between the languages in Halmahera whether from the same group or from different groups.

Dolabololo and Pantun: Between Austronesian and non-Austronesian

Both *bolabololo* and *pantun* are oral poetic genres in Gamkonora culture. The Gamkonora language is a part of Sahu language group or sometimes written as Savu. In Indonesia, *dolabololo* and *pantun* are identical. However, in Gamkonora, the two are distinguished. *Dolabololo* uses the Ternate language while *pantun* uses Ternate Malay. *Dolabololo* is an oral genre which deals with values and it is a form of advice. *Pantun*, on the other hand, deals with romance. *Dolabololo* is expressed in two forms which are in the same direction and reciprocity while *pantun* is only expressed in the form of reciprocity.

The following examples come from a collection of 30 dolabololo and 93 pantun (Imelda, 2013: 61).

Example of dolabololo

Hau foma tai pasi
Moro-moro fomaku ise
Om doro fomamote
Foma sonyinga foma dodara

Kalau kita memang dalam satu rombongan
Berarti kita bisa baku lihat, baku dengar
Tetapi kalau kita memang berbeda tempat
Kita tidak pernah baku dengar suara

If we are truly in one group
It means that we could see each other, hear each other
But if we are in different places
We (would) never hear each other's voice

That Dolabololo was translated from Ternate into a Malay-Ternate dialect of Indonesian by a native Gamkonora speaker. The word 'rombongan' is the translation of 'kelompok' (group), 'baku lihat' in Indonesian is 'saling lihat' (to see each other), 'baku dengar' means 'saling dengar' (to listen to each other). The message is about unity. There are dolabololo dealing with religious values, the value of getting a livelihood and other philosophizing on life.

Here is an example of dolabololo related to livelihood (Kleden-Probonegoro, 2013a: 79):

Hoko toma ngolo, tika nya'o ('ikan')
Isa toma haka oto, golaha huda ('sagu')
Si golaha ngom ma ahu hutu modiri

Translation in Indonesian:
Kita mencari ikan di laut
Ke darat mencari sago
Untuk makan bersama sampai nanti

We look for fish in the sea
To the land looking for sago
To eat together until later

The villages of the Gamkonora are located on the coast, and sea fishing is the primary means of livelihood. Nevertheless, it is not enough in itself and agriculture is also important. Fishermen who do not have agricultural land, especially in the transition between the dry and monsoon seasons that lasts from early December to late January are a difficult time. They're looking for non-cultivated sago owned by someone. An unwritten social code lets someone take sago, especially in difficult times by sharing partial sago obtained (in comparison based on custom rules). Dolabololo mentioned above conveys the value of togetherness in search for life.

Two examples of a pantun (Imelda, 2013: 60):

1

Saya heran kapal udara
Dari Dodinga terbang ke Oba
Dulu terima sekarang tidak

I wonder about an airplane
From Dodinga flying to Oba
It used to be accepted but not now

2

Air pundak ke satu botol
Cuci muka ketiga kali
Laki-laki macam begitu
Haram tobat sekali-kali

Carrying water in a bottle
Washing one's face three times
That kind of man
Forbidden is occasional repentance

The pantun in Ternate Malay is quite understandable by those who speak Indonesian. The first pantun is about a young man's love that is rejected, whereas the latter pantun condemns a man who frequently expresses love.

Linguistic and Non-Linguistic Factors

The people of North Maluku are multilinguals who normally speak several languages beyond their first language. In North Maluku, there are 15 languages in the Austronesian language family and 16 in the non-Austronesian language family with overlapping speech

expressions. Linguistic diversity is reflected not only in linguistic features such as dialect, or lingua franca but also relates to non-linguistic factors such as history, society, culture, economics, and politics which are interrelated in North Maluku.

This section discusses three things that show the relationship between languages and non-linguistic factors. The three things are: (1) the relationship between Gamkonora and Waioli which can be seen in the narrative origin of both ethnic groups and in turn can refer to the language relatedness. (2) the linkage between ethnic groups and the Tiana language in West Halmahera with Galela in North Halmahera. This section throws light on the issue of origin claims which are not related to the relatedness of languages, and (3) historical factors that have led to the use of Ternate and Ternate Malay as lingua francas throughout North Maluku and as far as Papua.

Gamkonora (Gamsungi dialect) and Waioli: Two Languages, Two Ethnic Groups with One Origin Story

Gamsungi village, one of the four Gamkonora villages, is located just below Mt. Gamkonora a volcano which is active today. This volcano has erupted several times. In 1980, the regency head provided land in Tosora (Northern Tosoa) for Gamsungi people who were threatened by volcanic eruptions. 90% of Gamsungi villagers obtained land without charge, claimed as customary land, and located in between the Sasur river shaft in Tosoa. Coconut and nutmeg were the dominant crops planted there. Tosoa is a Waioli speaking region. What is puzzling is why the Gamsungi people got land in Tosoa approved by the indigenous elders of Tosoa. There are three possibilities of the relationship of the two speakers which can be expressed linguistically and be revealed from the sources of history and mythology of the origins of the two ethnolinguistic communities.

First, a study of 223 basic words (Kleden-Probonegoro, 2013b: 30-32) showed that the basic vocabulary Gamkonora language, especially that spoken in Gamsungi village, was 75% the same as the vocabulary of Waioli (in Bataka village) while the degree of relatedness between Gamkonora languages, in three other villages and the Waioli language, only reached 70%. It means that the Gamkonora speakers in Gamsungi village have a specially close relation with Waioli.

Second, the relationship between the speakers of Gamkonora language in Gamsungi village and Waioli speakers is also affected by non-linguistic aspects. Fraassen (1980: 97) described the two groups who had lived in Ake Lamo river basin since the 16th century or perhaps since the 15th century namely the group of Waioli speakers settled at the top of

the valley and the Sahu language speakers who stayed at the bottom of the valley. Further research by Visser (1984) indicated that Waioli speakers came from the surrounding area of Onu Mountain, located between Sa'u which is now spelled Sahu and Gamkonora. Onu Mountain is also called Waioli Mountain. So Waioli speakers possibly live around Onu mountain above the Ake Lamo river. In addition, the Waioli language and Gamkonora language in Gamsungi (and not between Waioli language and Gamkonora language in general) also have /r/ similar sound. The sound of /r/ for the speakers of Gamkonora in three other villages is not recognized and therefore replaced by the sound of /l/. This shows a close relationship between the speakers of Gamkonora language of Waioli village and Waioli speakers.

Thirdly, the closeness of speakers of Waioli and Gamkonora language from Gamsungi village can be traced through their origin myths. The speakers of Gamkonora from Talaga village, Gamkonora, and Tahafo village both believe that they are native people of Gamkonora who originally lived in Gamkonora village and later spread to the four villages.

Meanwhile, the origin of Gamkonora speakers according to people in Gamsungi village is different from three other villages. The speakers from Gamsungi village believed that they originated from Sembilan Mountain in the north of Jailolo. According to an informant from Waioli who believed they had lived at the foot of Sembilan Mountain since the time of his ancestors said that the Sembilan Mountain was the place for Waioli people to earn a living by hunting. Then, they, and the Gamkonora people living in the Gamsungi village, started the plantation at the foot of this mountain because the Gamkonora people were also from Sembilan Mountain and both lived in the foothills of Sembilan Mountain. Meanwhile, the other version did not recognize that Gamkonora speakers came from Sembilan Mountain because there was a ceremonial house in Sembilan Mountain used for holding ceremonies by slaughtering pigs something that could not be done by the Muslim Gamkonora.

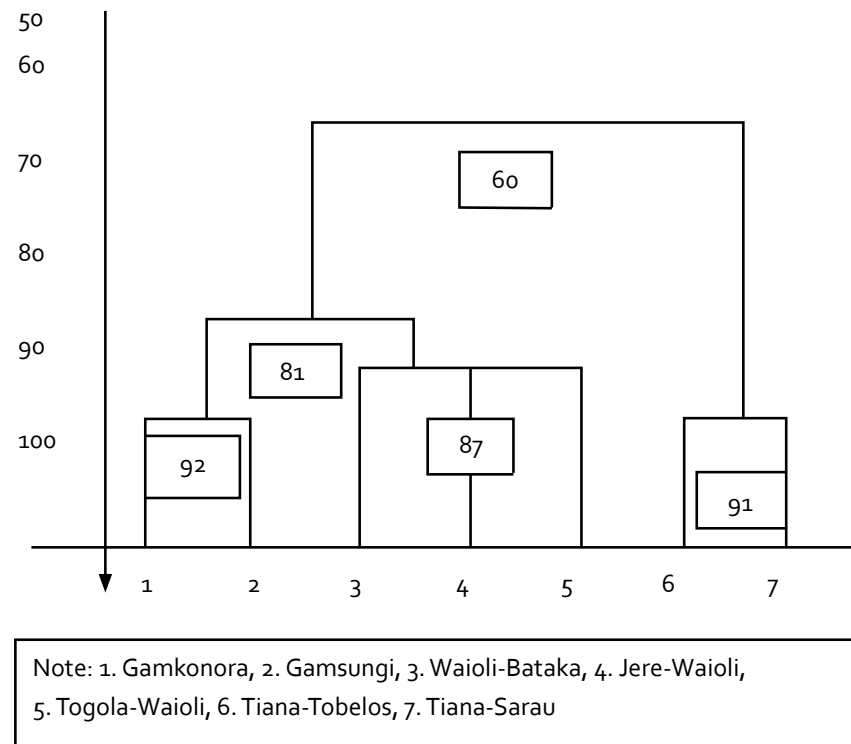
Fourth, the relatedness of Waioli and Gamsungi was supported by stories originating from Gamsungi village in which it was described that Sangaji Gamkonora and Sangaji Tosoa were brothers. They are of the same mother but different religion because his brother was Christianized by the Portuguese. Under the guidance of Darwis, Tosoa converted to Islam and changed his name to Abdurrachim and his tomb was the tomb of Islam that used a headstone. Thus, it is clear that the closeness of language in this case between Gamkonora speakers who lived in Gamsungi village and Waioli speakers can be explained by non-linguistic factors. Even in reality, the language relatedness is supported by non-linguistic factors such as politics. Political reasons could be clearly tracked even through mythology.

The Head of the district gave permission to Gamkonora speakers from Gamsungi village to occupy the land in Tosoa and not to the Gamkonora from another group of speakers or other ethnic groups. This privilege did not stimulate any protest by Waioli people in Tosoa.

Tiana and Galela Language: From the Same Origin but Unrelated

The Tiana language is not mentioned in any literature (or more accurately not yet discovered). The current speakers of Tiana are the dominant ethnic group in the village of Jere, Sarau (known as Tiana-Sarau). In the village of Tobelos, many Tiana speakers mingled with Waioli and Tobaru speakers as well as in Togola -Waioli. Tiana speakers claimed that they speak Tiana, especially Waioli speakers who live with Tiana speakers in Tobelos and Sarau village, as well as Gamkonora speakers who are from the neighboring village.

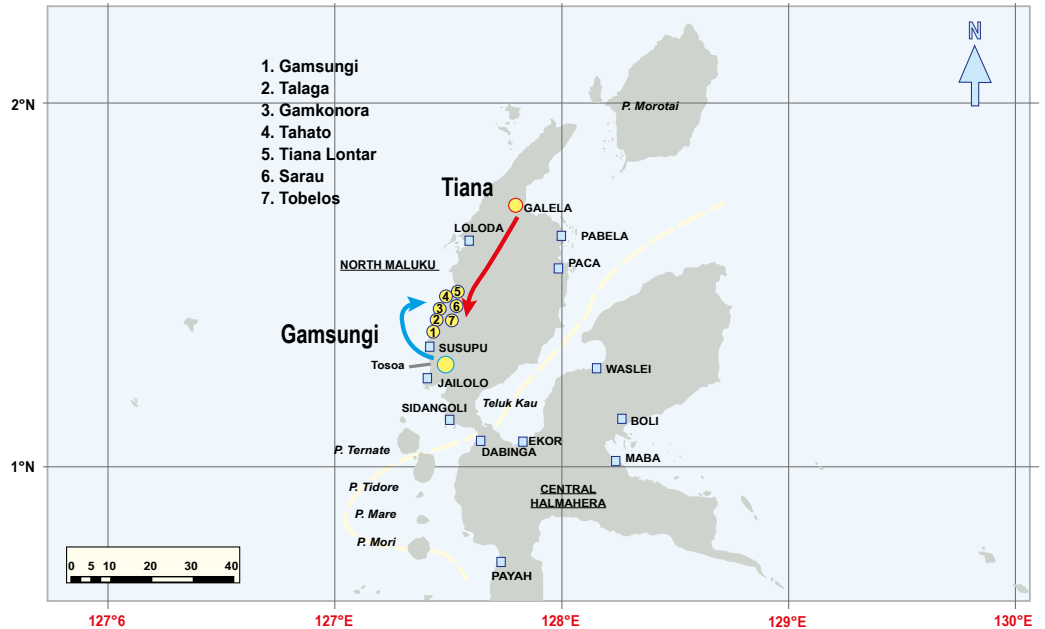
The following chart shows a kinship of Tiana language with Waioli and Gamkonora
 Source: (Imelda, 2013) Struktur Diversitas dalam Ekspresi Dolabololo dan Pantun



The basic vocabulary in the Tiana language is 60% the same as the Waioli and Gamkonora languages. This means that these three languages are in one language group. Meanwhile the Gamsungi dialect of the Gamkonora language and Waioli language are one language, in which Gamkonora speakers serve as a bond between the Gamkonora language and Waioli with a basic vocabulary similarity of 81%.

Although the Tiana, Waioli and Gamkonora languages are found in a single language group, the Tiana speakers who live in Tobelo village or in Sarau village claim that they came from Galela. In fact the relatedness of Galela with Waioli and Gamkonora languages are quite dissimilar. These languages have the same basic vocabulary of only 46% which is not much different that between Galela and Gamkonora which only amounted to 44%.

The map of the origin of the Tiana and the Gamsungi.



In other words, Tiana language speakers actually have a closer kinship to Waioli and Gamkonora languages than to Galela even though Galela village was assumed as their place of origin. However, this fact is not recognized while Gamkonora speakers with Gamsungi dialect are recognized as described above. Tiana speakers from Tobelos village and those who live in Sarau village consider that they came from Galela but with different

versions of when they arrived. Both of them have always claimed that the Tiara speakers living in Sarau and Tobelos came first.

Narratives about the Tiana Migration: Two Versions Sarau and Tobelos

According to the Sarau village version, the origin of Tiana speakers suggests that they came from Galela and immediately settled in Sarau village. From Sarau they dispersed, to Tobelos village, Jere, and Togola-Waioli. The story tells us that in ancient times in Galela there was someone named Paraju. He arrived at Sarau wearing headgear called sarau in the Galela language and since then, the area where Praju lived has been called Sarau village.

In another version of the story of the Tiana people's arrival, we are told that the Tiana people came from Galela. However, the informant claimed that the Tiana people who came to Sarau headed somewhere (Sarau) where sweet potatoes were grown. In the Galela language, sweet potatoes were called sarau so that over time this village was called Sarau. However, both versions concluded that Tiana people came from Galela, and sarau could mean headgear or sweet potatoes.

Meanwhile, the Tiana speakers in Tobelos village said that they came from Galela and headed straight to Tobelos. Although the Tiana speakers admitted that they came from Galela, actually their language is related more closely to Waioli and Gamkonora than to any languages in Galela.

Galela as the Tiana Speakers' Homeland

The name Galela occurs in historical sources in 1543 when Galela was defeated by the alliance of Gamkonora, Ternate and Portuguese. As a result of the defeat, Galela had to admit that he was under Sangaji Gamkonora, Leliato (the name is not included in the list of Sangaji Gamkonora provided by current Sangaji Gamkonora, Rajab Sahib), who was one of Sultan Hairun of Ternate's in-laws (Fraassen, 1980: 116).

Not much is known about Galela except for the report in 1543 in Gamkonora. Galela is described as a leader who embraced Islam. In 1562 a Sangaji Galela converted to Christianity to join the Portuguese. From 1559 Galela had been against the Christian Moro and their Portuguese allies. Another source dated 1662 does not describe Galela as either a Moslem or a Christian. The 1543 text describes Galela as an individual who converted to Islam during the reign of Sangaji Gamkonora there and 40 years later there was a sangaji Galela who converted to Christianity.

In a text dated 1665 it was reported that Galela's people recognized Sangaji Gamkonora (Fraassen, 1980: 117) until 1741 when there was a revolt against the Sultan of Ternate and Sangaji Gamkonora. Gamkonora had no power over Galela any more because of its treaty with the Dutch. This was followed by a power vacuum that lasted until 1794. In 1822, Sangaji Gamkonora no longer had any power over Galela.

Two important points in the short history of Galela can be mentioned. First, no article mentions Tiana. Second, the story that Tiana people came from Galela was recorded in the field. The arrival of the Tiana people in Sarau who then spread to Jere and Tobelos, according to this version was caused by war. Unfortunately, which war is not known so the year when the war happened can not be identified. Between the years 1553 - 1550, the sultanate of Ternate and Bacan was allied with the Portuguese against Jailolo.

Fraassen, (1980: 91) states that between the years 1553 and 1550, Ternate and Bacan were allied with the Portuguese against Jailolo who was allied with Tidore and the Spanish. The war between Tidore and Jailolo according to the Gamkonora, lasted a long time.

Non Linguistic Explanation

Van Fraassen recorded that Sangaji Gamkonora once ruled Galela and Tobelo in the 17th century. This was also asserted by a descendant of Sangaji from Gamkonora village but he did not mention the year. Elderly Gamkonora speakers confirmed that Tiana speakers came from Galela. Furthermore, it is said that their arrival occurred during the war between Ternate and Jailolo (Fraassen, 1980: 91) Jailolo was occupied by Ternate who were allied with the Portuguese. In December, the Sultan was summoned to Ternate but he refused. Sangaji Gamkonora, at that time Qamaluddin, asked Jaelani Kharim Jieko to settle in Gamkonora and gave him a piece of land in Lontar Tiana (sometimes called Tiana Lontar). Jaelani Kharim Jieko came together with maids, servants and slaves. Their descendants are known as Tiana. After the war, Jaelani Kharim Jieko, the military leader of Tiana, moved to Tobelos and Sarau simultaneously from Lontar Tiana.

Differences in sources may explain why Tiana speakers eliminated their historical traces from Gamkonora especially Lontar Tiana because of their status as maids of Jaelani Kharim Jieko during his arrival in Gamkonora in the 16th century exactly after the war between the sultanates of Ternate and Jailolo ended. The Galela language may have been intentionally left out of the record because of their closeness to Jaelani Kharim Jieko who went to Lontar Tiana, Gamkonora speakers' region.

So the relationship between the Tiana and Galela languages goes back some time, although Tiana speakers claim that they originated from Galela and had no effect on

their language. From the description of history put forward by Dutch researchers and oral histories that have been suggested by elders of Gamkonora speakers, it can be concluded that there is an attempt to eliminate the traces of history of Tiana speakers for non-linguistic factors associated with social status as described above.

North Maluku and West Papua

This section show the connection between North Maluku focusing on the island of Halmahera and West Papua, especially the Bird's Head area.

Van der Veen was the first to show the similarities between the Halmahera and Bird's Head areas. In 1915, Van der Veen's dissertation showed the same characteristics between West Papua (or non-Austronesian) family of languages and languages in North Halmahera. Since then, linguists, who initially studied Halmahera apart from Papua, have begun to pay attention to the relationship between these two regions where the languages are from the same family.

Voorhoeve (1984) initially saw any mixing among language groups that occurred at some point of his research. Lexical and grammatical forms of West Makian languages differ from the language family in North Halmahera. The languages are non-Austronesian but has not lost its Austronesian characteristics. Then, the Ternate-Tidore language group lost its Austronesian characteristics such as the loss of gender marking and so did the West Makian language and resembles a non-Austronesian language. So as Sahu language is included in the non-Austronesian languages in North Halmahera, it lost its non-Austronesian characteristics and seems to be leaning towards the sub-group of Ternate-Tidore. But in terms of vocabulary, the language is still the same as others in the Sahu language sub-group (two dialects of Sahu, Gamkonora and Waioli languages) and the languages in North Halmahera (Galela-Loloda language sub-group, languages around Kao river, Tobaru language, and Tobelo language sub-group).

Voorhoeve has reviewed research by his predecessors like Van der Veen in 1912 which stated that the grammar and vocabulary of languages in North Halmahera should be included in the non-Austronesian family. Another example is the research by Van der Aa in 1872. The research shows that the way of telling numbers and nouns in North Halmahera (non-Austronesian) is different from the same aspect of languages in South Halmahera which belong to the Austronesian language family.

Bowden's (2013) research on Gamkonora language in West Halmahera shows this. Consider the following table which shows how Gamkonora people say numbers.

Table 4
How to say numbers in Gamkonora Language

1	Nai moi	one
2	Nomodidi	two
3	Lo 'ange	three
4	Nomotual	four
5	Lalang	five
6	Tumding	six
7	Tumding	seven
8	Tulangil	eight
9	Siol	nine
10	Nyagimoi	ten
11	nyagi moi denga moi	eleven
12	nyagi moi denga didi	twelve
13	nyagi moi denga ange	thirteen
14	nyagi moi denga lata	fourteen
19	nyagi moi denga siol	nineteen
20	nyagi momo didi	twenty
30	nyagi momo ange	thirty
40	nyagi momo lata	forty
50	nyagi momo tual	fifty
60	nyagi momo lalang	sixty
70	nyagi momo tumding	seventy
80	nyagi momo tu'angil	eighty
90	nyagi momo siol	ninety
100	latus le moi	one hundred
21	nyagi nomo didi denga moi	twenty one
31	nyagi loo 'ange denga moi	thirty one
101	latus le moi denga moi	one hundred and one
200	latus le lomodidi	two hundred
300	latus le lo'ange	three hundred
546	latus le nomotual denga nyagi momo lata denga lalang	five hundred and forty four
1000	calan le moi	one thousand
2374	Calan le lomodidi denga lotus le lo'ange denga nyagi nomo tunding denga lata	two thousand three hundred and seventy four

Source: Bowden (2013: 88-89)

The figures in the table are used to calculate something and at the time of the study by Bowden, the numbers were used to calculate coconut fruit that would be used to make copra. The figures above 10 are figures borrowed from the Austronesian group. For example, number 100 in Gamkonora language is 'lotus' which in Malay is 'ratus'. Similarly,

in Bowden's other research that is a study on the Taba language (of the Austronesian group) number 1000 is referred to as 'calan'. Basic numbers are 1-10 and above these numbers are repetitions. Nai moi is one, nomodidi is two, and eleven is *nyagi moi denga moi* and twelve is *nyagi moi denga didi*.

It can be concluded that in North Maluku, characteristics of Austronesian and non-Austronesian are mixed here and there. The Sahu language and West Makian which are non-Austronesian, for example, still have some of the characteristics of the Austronesian. Many words are borrowed from the Sahu language sub-group, namely Sahu, Gamkonora, and Waioli language while the Ternate-Tidore language included in the Austronesian language group still has characteristics of non-Austronesian which does not have gender form as in West Makian language.

Linguistic conditions showing loss of certain characteristics of non-Austronesian from its group and the existence of Austronesian characteristics in that language made Voorhoeve (1983: 20) suspect the influence of Austronesian hypothetically caused by genetic linkage.

Language and Genetic Links

Genetic linkage between North Maluku and Papua, especially in the western part, occurs not only in the aspects of language as underlined by Voorhoeve as mentioned above but also can be indicated by myths that have similar themes and motifs between North Maluku, in this case South Halmahera, with West Papua (Teljeur, 1984). Genetic linkage can only be known from the assumptions about the origin of language through certain methods.

Voorhoeve (1984) in his article "Comparative Linguistics and West Papuan Phylum" said that the methodological steps taken must have 'heuristic' value (Poespowardojo and Seran, 2015: 113-114). 'Heuristic', which is derived from the Greek word *eurike*, can explain that science emerged as an invention or discovery which in turn came to genetics (origin) of science. In conjunction with linguistic aspects, Voorhoeve (1984: 65) questioned the genetic linkage between languages in North Maluku with languages in Western and Central parts of Kepala Burung in Papua. Ideally, there is a comparison between the linguistic features of the languages in the two regions. Unfortunately, the data for comparison is insufficient, so he performed a reconstruction of the existing languages. First of all, he made an inventory of consonants of languages in North Halmahera reconstructed as proto North Halmahera. This kind of reconstruction has a heuristic value. The next step is the reconstruction of proto sounds along with the vocabulary of the languages of the

Bird's Head region (Tehit and Moi languages) associate them with languages of North Halmahera and then draw the links between the two languages. In this way, Voorhoeve found genetic linguistic linkages between the two regions. The heuristic study conducted by Verhoeven aims to see the linkage between these two regions. Although it is based on a method that can be accounted for, the research is contested. Verhoeve (1984: 82) concluded that Proto North Halmahera had a close relationship with the languages that existed in the Bird's Head region in Papua. He hypothesized that in prehistoric times Bird's Head area was a place of origin of non-Austronesian languages that spread to the west. At that time, proto North Halmahera was also spoken in Kepala Burung region and on the islands in the western part. It was assumed that the arrival of Malayo-Polynesian speakers caused proto North Halmahera communities to move west and there was a breakaway group that settled on the island of Makian. The descendants were known as speakers of Makian West. The other group continued their journey towards North Halmahera and to islands of the west. Before reaching there, the speakers of proto north Halmahera were thought to have made contact with the speakers of Austronesian languages of Oceania. In Halmahera, their languages came into contact with the Philippino speakers, especially the ancestors' language of Sangihe-Talaud speakers. Furthermore, their languages came into contact with speakers of Austronesian languages who were assumed to come from Biak. We conclude that non-Austronesian languages in North Halmahera originated from the Bird's Head area while the influence of Austronesian languages can be observed in its speakers who settled in South Halmahera and the surrounding islands.

Mythology that Unites Austronesian Groups in Different Regions

Teljeur (1984) conducted research on mythology in South Halmahera, particularly in Foya and Mafa villages (also known as Boli) in which the distance between the two villages was about a half hour walk, as was the case with Waropen in Papua. Foya and Mafa villages were located on the gulf coast of Weda where people of these two villages spoke the Weda language which was still related to languages in Central Halmahera. Foya speakers were also found on the inland by the Foya River. This Foya group was actually closely related to the Weda language, while the other Foya group living on the gulf coast of Weda was more influenced by the Ternate language. He explained that the language spoken in Foya and Mafa belonged to the Austronesian language group of South Halmahera and West Papua (West Irian Jaya at the time) sub-groups (Teljeur, 1984: 212). It was influenced by Waropen people who lived in the bay of Cenderawasih, like Foya and Mapa people, who spoke a language that

belonged to the Austronesian language group. Teljeur focused on mythology to show the relation between South Halmahera and West Papua and he selected different mythological narratives two variants from South Halmahera and two from Waropen.

In South Halmahera, an important mythological creature is the eel while in Waropen it is the snake. Teljeur looked at these two mythological creatures. At noon in Foya, when people were hungry, in between the rocks where people were busy working, an eel emerged carrying a stick and wearing a headband like a sangaji. Some people wanted to catch it but some others were shouting and forbade anyone to catch it. Finally they caught the eel and boiled it. Everyone ate boiled eel but not long after, they all died except a woman who was three months pregnant. This woman gave birth to a baby boy and brought him up but when he was grown she was married to him because there was no one else living in that area. This was incest, a violation of the rules of marriage which was called *cuki yaya* in the Ternate language and up to now there has been a *soa cuki yaya* in Foya who is assumed to be a descendant of the pregnant woman. Another version of this myth has it that the eel was out of the river and boiled by the people. All the people who ate the eel died because they killed each other. Both versions of the myth has it that people died after eating eels boiled in a cauldron. The first version describes the eels' emergence out of the rocks as proper as a sangaji and other version has the eels coming out of the river.

In Waropen, there is a myth about a boiled snake. At one time there was a girl named Nuawiroki who went with her mother. Because of hot weather, she felt thirsty. Therefore, she went in search of water to satisfy her thirst. She got water from a container and it turned out that she drank snake eggs. Nuawiroki became pregnant and gave birth to a snake which was immediately attacked by her father but Nuawiroki's mother prevented him from killing the snake. The snake was placed on a dish and taken care of as it grew up. Once grown, the snake named Siroei was sitting with its mother on the edge of the forest. The villagers wanted to kill the snake, but the snake was able to escape. Finally the snake was caught. The snake was cut into small pieces and then taken to the village. Miraculously Siroei was alive and followed the group from behind. In one house, the snake was boiled in the cauldron and then its head was out and singing that it was Siroei using clever rhymes. By the time people came to look for the origin of the sound, the head of the snake was back into the cauldron. So as no one was there, the snake's head came out and sang loudly again. Finally, Siroei's meat was eaten by the villagers and after that all the villagers died.

Teljeur (1984: 240) said that the myths about the eel and the snake in the cauldron appears among ethnic groups in Papua New Guinea and Melanesia. This myth was often

associated with flooding (Margaret Mead's research on Arapesh people). Teljeur's research on mythology concluded that the group of speakers of languages in South Halmahera and West Papua in the past had formed a cultural area that evolved independently and made contact in between the speakers of the locals who produced a way of life and different cultures, so it looked as though there was no connection.

Conclusion: North Maluku and Representation of Melanesia

This study has looked at languages in North Maluku based on research into the languages and cultures of Melanesia conducted by other researchers. A question can be asked about this research. Is it possible that the languages of North Maluku which belongs to the non-Austronesian language group can represent Melanesia which belongs to Austronesian language group? The Austronesian language family particularly in Papua and Melanesia is in the Malayo-Polynesian language group namely Eastern Malayo-Polynesian (the others are Western Malayo-Polynesian and Central Malayo-Polynesian). There are four reasons that languages of North Maluku should be able to represent the language and culture of Melanesia although such representation can only be seen in the development of language and culture that is sporadic in nature.

First, the two language groups are related genetically. In prehistoric times, the Papuan area was home to non-Austronesian language groups or languages of Eastern Malayo-Polynesian or Melanesian and then spread westward. It was assumed that the arrival of speakers of non-Austronesian caused a language shift in West Papua. Most of them moved to the west and there was a breakaway group which settled on Makian Island. Their descendants were known as speakers of West Makian. The other group continued their journey towards North Halmahera and islands in the west.

Second, the languages of North Maluku basically belong to the non-Austronesian language family which is the same as Eastern Malayo-Polynesian languages, often referred to as the Papua Phylum, but this language group often shows its Austronesian characteristics here and there. The non-Austronesian feature can be seen for example in the signpost word which is quite complicated and in the noun while Austronesian characteristics can be observed in the grammar in constructing a sentence by following SVO (subject, verb, object) word order pattern, in numbers adopting many borrowed by forms from the Austronesian group and the absence of gender pronouns.

Third, the relationship between North Maluku and Melanesia can also be seen in culture, for example in the system of values and the strong religious beliefs which were influenced

by ancestors. In material culture, links can be found in such things as styles of house, dance, and food. For example, the traditional house was called batang in Gamkonora and hifualamo in Pagu (hifua meant home and lumo meant great). Formerly, the New Order government eliminated local customs and one of them was the hifualamo, the traditional house. After the fall of the New Order government, 10 hoana groups (indigenous communities) namely Modole, Pagu, Line, Towliine, Boeng, Huboto, Mumulati, Gura, Morodina, and Morodai re-established hifualamo in downtown Tobelo on April 19, 2007. Meanwhile, ten hoana still maintained their traditional homes. In Galela, there was bangsaha whose name was similar to a traditional house of inland Tobaru which was different from the coast Tobaru speakers term that called it hoana morodai. There were many types of custom homes such as batang, sasahu, hifualamo, bangsaha, hoana morodai and many more. The traditional houses owned by Oirata were not only found in North Maluku, Southeast Maluku, Kisar Island, but also in Alor (owned by Kafoa, Hamap and Kui) in Timor Island especially Atambua (owned by Kemak, Dawan, Bunaq and Tetun) in Papua and Melanesia territory. A wide variety of traditional houses seemed to have a similar basic form; round or rectangular; and a thatched roof (Kleden-Probonegoro, 2013a: 54).

Fourth, the acceptance of cultural change with the advent of new words scattered throughout the region and functioning as a meeting place for traditional meeting in our country also indicates the relationship between the North Maluku and Melanesia. The word 'sawah', for example, is not found in the Gamkonora dictionary. They recognize the term 'bida' which means rice (raw rice) which could also mean rice (cooked rice). (Raw) rice and (cooked) rice are known in Gamkonora culture whereas the word 'sawah' is not known because the rice planted in Gamkonora is a type of dry land rice. But after the Agricultural Agency of West Halmahera District, Mahardi Rappang introduced a system that used paddy irrigation supplied by mangrove land water in 2007, hence the word 'sawah' entered the Gamkonora lexicon.

These examples show a connection between the languages of non-Austronesian speakers in North Maluku and languages and speakers of Eastern Malayo-Polynesian. The Gamkonora language as one of North Maluku language groups can represent Melanesia in the sense of being a mixture between Austronesian and non-Austronesian and the existence of borrowed vocabulary for cultural phenomena.

The mixture of linguistic features of non-Austronesian and Austronesian languages and certain similarities in physical culture in North Maluku are not enough to conclude that the language and local culture were isolated from outside influence, but rather

show their similarities that most likely originated from the Melanesian communities and groups in the diaspora.

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CHAPTER 5

Rovicky Dwi Putrohari

Geological and Climatic Influences on Early Human Migrations in the Indonesian Archipelago

Geology, Climate and Migration

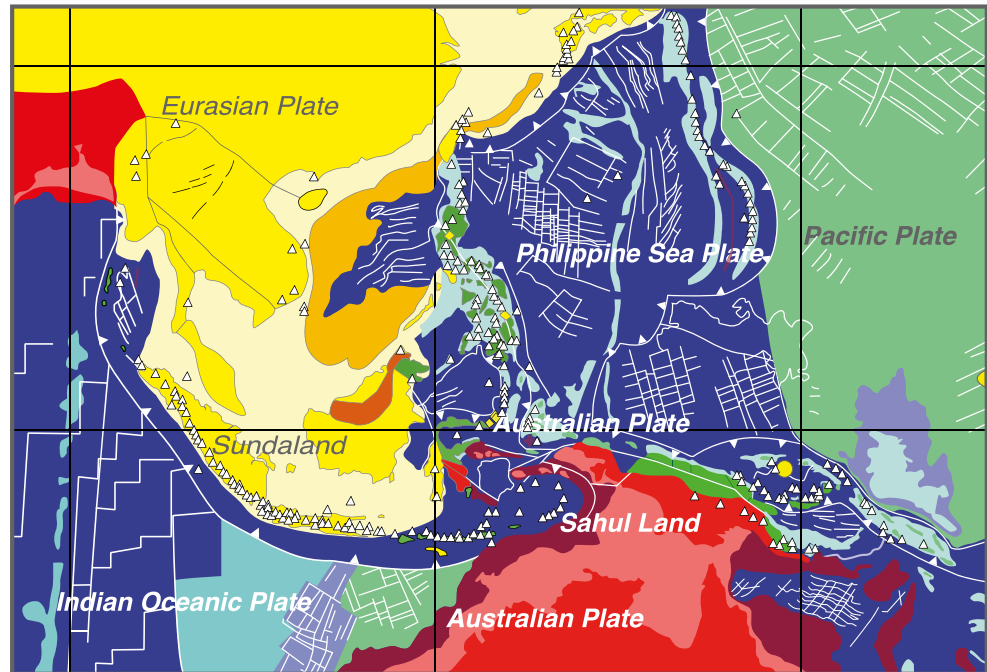
Indonesia's Two Geological Areas

Indonesia is divided into two main areas on the basis of the type of rocks there, eastern and western. The rocks in the east are much older than those in the west. The rocks in the east were formed in the Mesozoic era about 250 million years ago. Meanwhile those in the west were formed in the Tertiary era about 60 million years ago (Hall, 2002). The two areas came together around 10 million years ago when the Australian tectonic plate moved north. This northward movement is still going on today. However, these tectonic processes have not seen as much movement during the human period and have not had as great an impact on human settlements, migrations and the development of culture as other geological processes. The present pattern of the islands in the archipelago, including inter-island distances and coastline position, has had its present form for at least two million years (Hall and Blundell, 1996, Hall et al., 2011). This chapter discusses the geological features that shaped Indonesia and the impact of these on the human beings who have migrated and settled there.

Coastal Regions and Early Humans

Most of the sites of early human habitation are found along or near the coast. Changes in the coastal morphology have had a significant impact on human habitation from the earliest times up till the present. Coastal areas were attractive places to stay for the earliest inhabitants. The degree of the slope of the shoreline impacts the ability to make land when arriving from the sea (Bird, 2008).

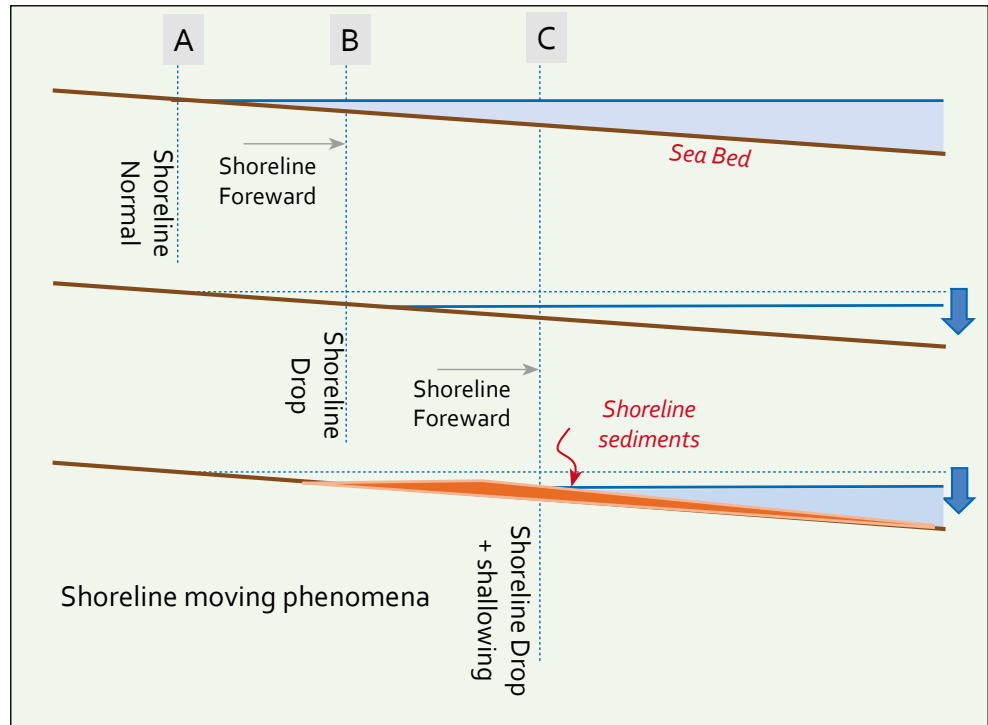
These archeological sites are not necessarily found on today's coastline. This is because coastlines can move landward or seaward due to changes in sea level which in turn is driven primarily by atmospheric temperature changes that trap or unlock water in polar regions or glacial regions.



The main tectonic plates in Southeast Asia, Australia and the Pacific. The younger rocks (from 60 million years old to the present) are in yellow and the older rocks (250-270 million years old) are in red.

The warming and cooling of the atmosphere take place in cycles of thousands of years. The resulting rising and falling of the sea level will impact the shoreline, at one time creating new, habitable areas along the coast, and at another inundating those areas and driving out its inhabitants. This process can be seen today at the Baturaja Site, which is found on the Rengasdengklok coast. The temple was abandoned because of subsidence which led to the flooding of the area and eventually it was covered by the coast sediment.

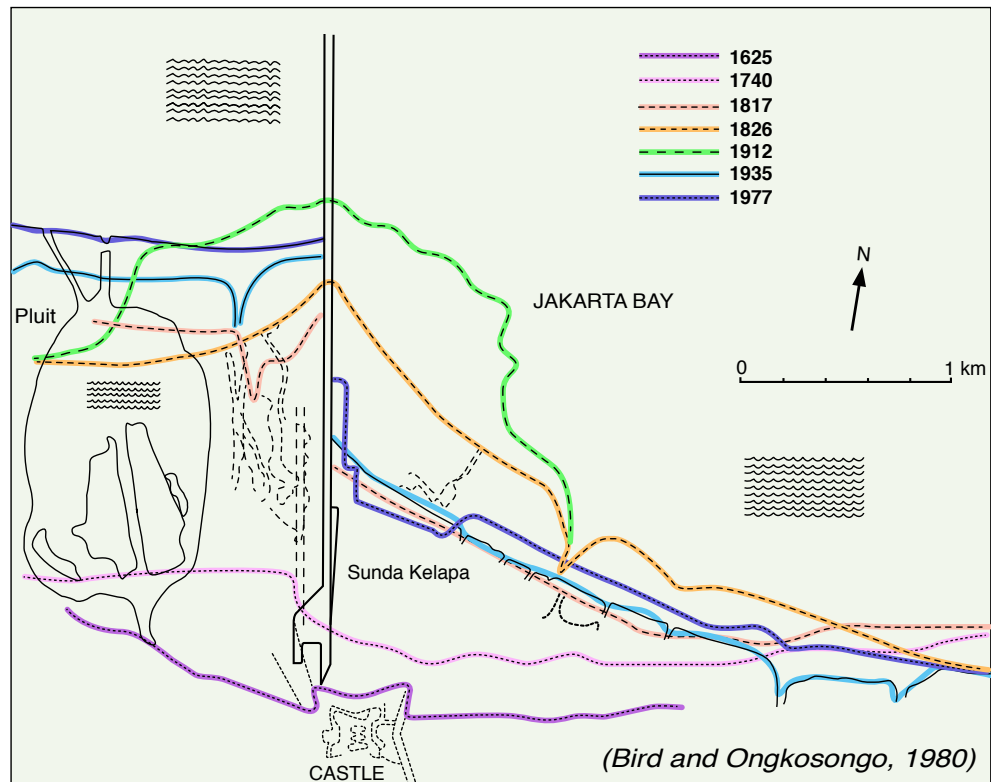
Coastline changes are caused by the rise and fall of the sea level and also by the accumulation of sediment that is carried from inland by the movement of water. The coastline of Jakarta is subject to such processes. The figure on page 210 shows how the morphology of Jakarta's coastline has changed between 1625 and 1977.



Coastline changes are caused by the rise and fall of the sea level and also by the accumulation of sediment that is carried from inland by the movement of water. The coastline of Jakarta is subject to such processes. The figure on the right shows how the morphology of Jakarta's coastline has changed between 1625 and 1977.



In the present era, technological and scientific advances have made it possible for people to construct defenses against the sea. Breakwaters and coastal defenses appear as straight lines on a satellite map, in marked contrast to the natural contours of the coast, as in the graphic showing the entrance to Sunda Kelapa harbor. Useful as these constructions are, they can also bring about unwanted processes such as the build up of sediments which may alter the coastline in the future.

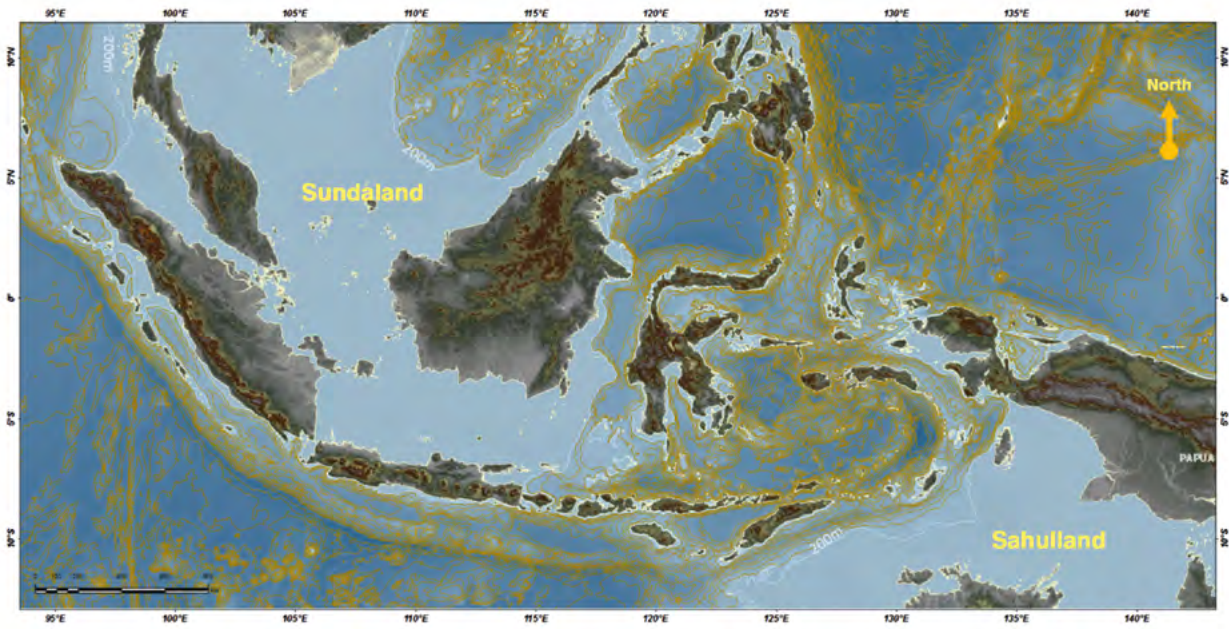


Changes to Jakarta's coastline

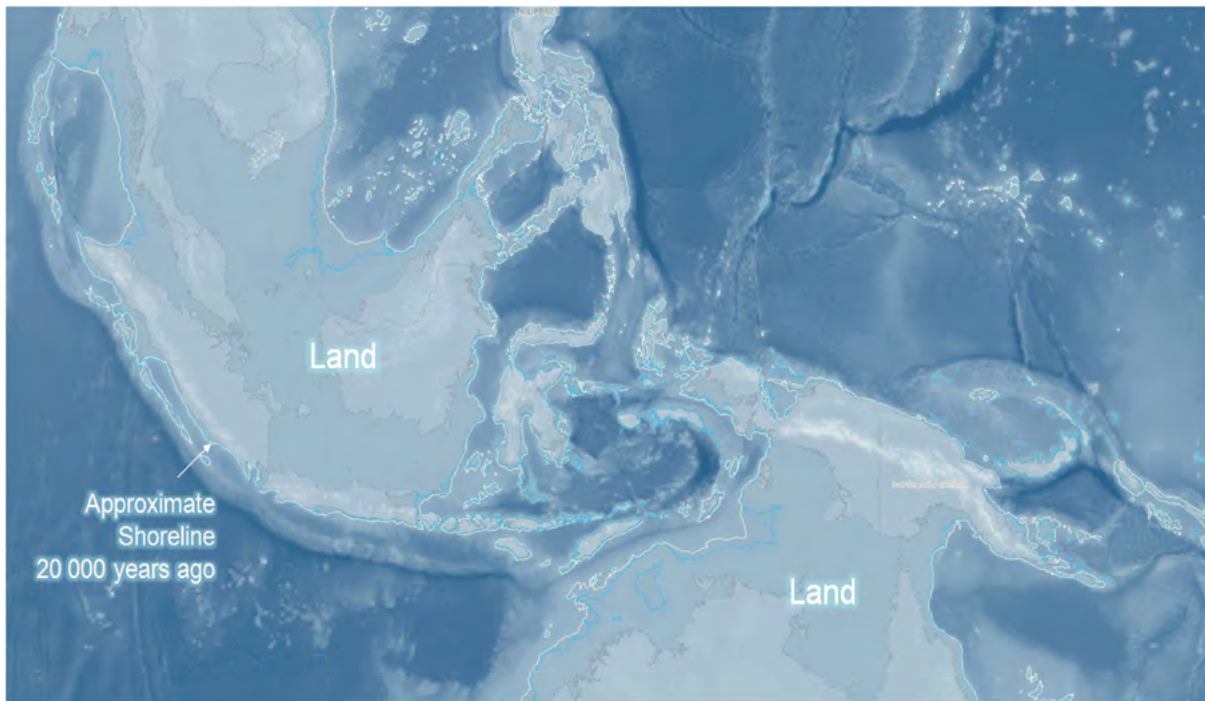
Ice Ages and Sea-level Changes

The dynamics of sea level height changes are an important part of coastal geology. Although sea levels are known to have risen and fallen repeatedly over long geological periods of time before humans, there is now a strong consensus that human actions are now impacting climate so that sea levels are rising. An important period in the past was when the sea levels were significantly lower and the present day western islands of Indonesia were linked to peninsular Malaysia in a single land mass called Sundaland. This part of Indonesia was still separated from the eastern part of Indonesia by deep sea.

Research into changes in sea levels in the South-east Asian region can provide insight into the patterns of migration in the past. Around 200,000 years ago, the sea level was as much as 130 meters lower than it is today. This created the conditions for the formation of a single land mass uniting the islands of Sumatra, Java, and Kalimantan with the Malay peninsula. This land mass was known as Sundaland.



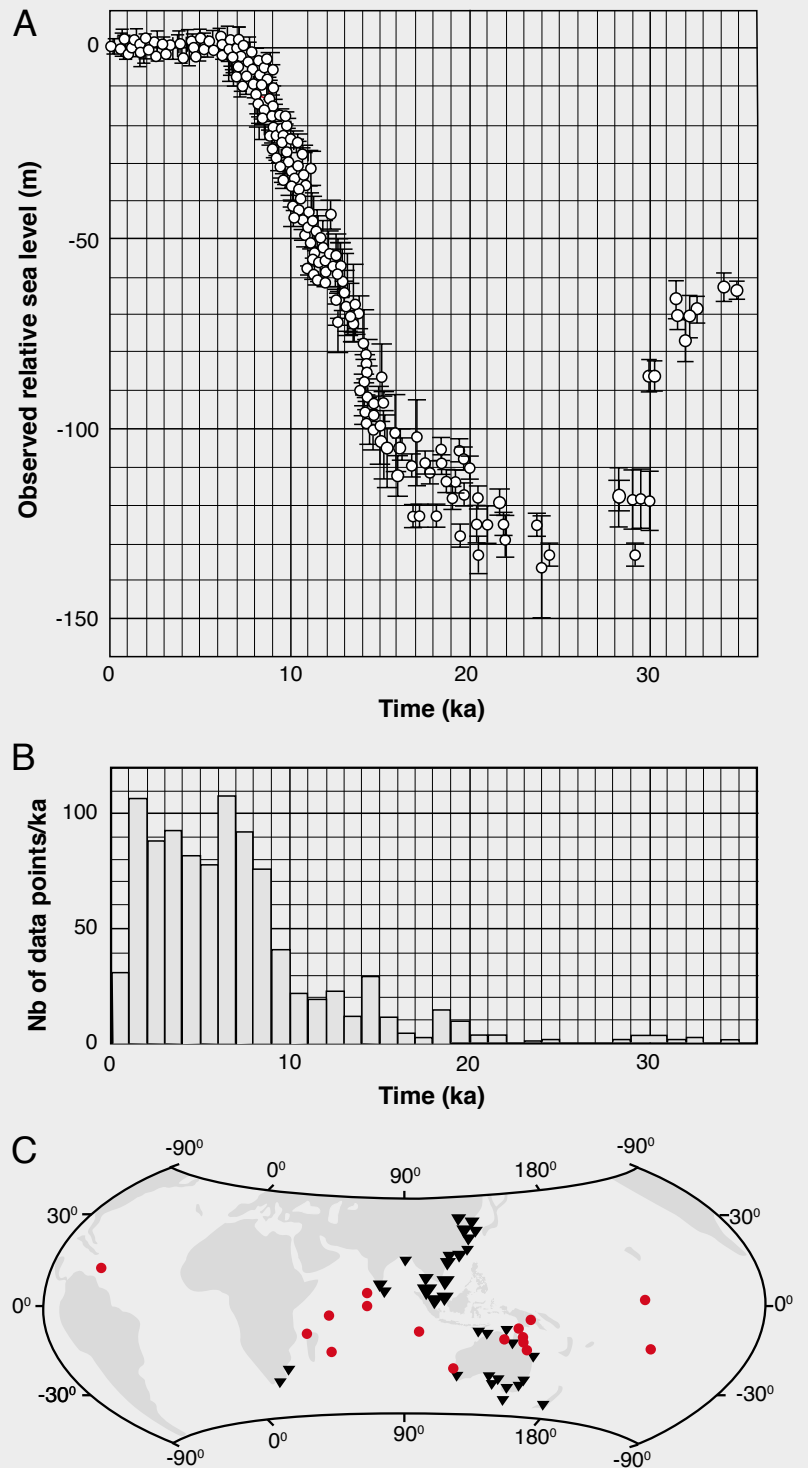
This is shown in the topographical and sea depth map.



The map of the Indonesian shoreline 20,000 years ago.

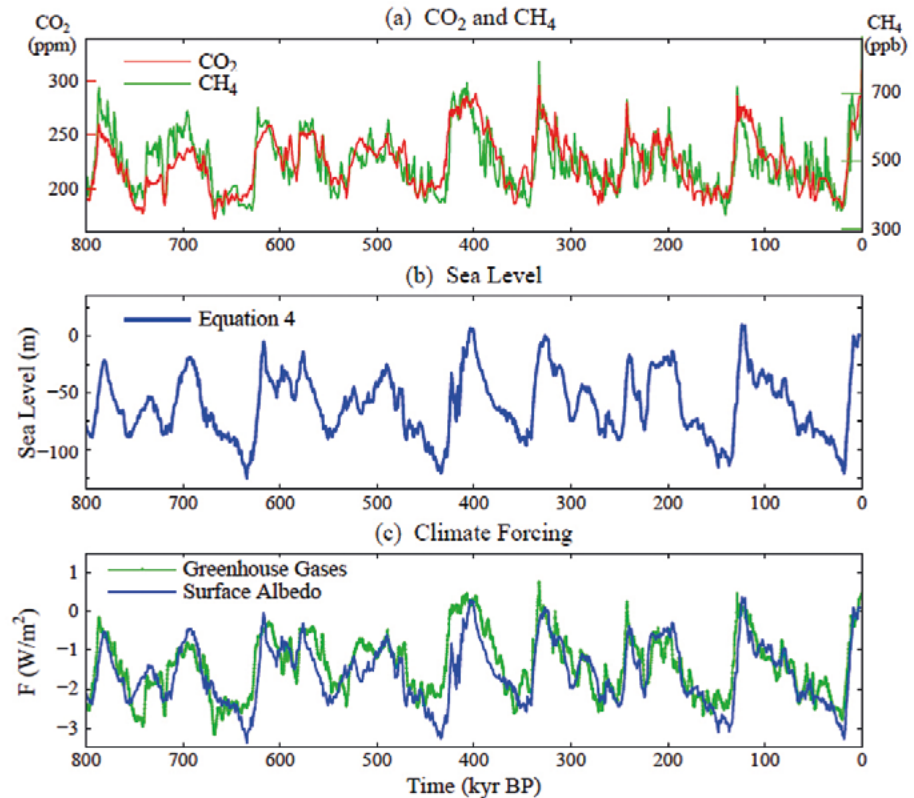
Migrations of early humans from this time would not have had to deal with sea crossings.

Data distribution of sea level since 35 ka.(A) The average water level line is compared to that of its present level. (B) Distribution from data. (C) geographical distribution of the location of coral data gathering (red points) and sediments (black triangles) (Lambeck et al., 2014).



The sea level at present is about the same as it was 7,000 years ago (Lambeck et al., 2014). The single land mass of Sundaland has been replaced with a patchwork of islands. Any early humans who wanted to migrate would have had to have used seafaring skills and sailing technology. The period when the sea level was at its lowest, about 800,000 years ago, coincided with the movement of early pre-humans. This area is now part of a shallow sea of less than 200 meters.

Sea levels are also thought to have aided the first emergence of the earliest human ancestors from Africa about two million years ago. Below graphic shows how changes in CO₂ and CH₄ levels influence global temperatures which in turn cause the fluctuation of average sea levels.



The dynamics of global climate sensitivity and its relation to the content of CO₂ and CH₄ (Hansen et al., 2013)

Sea levels have fallen to a maximum of about 150 meters below present day levels. Consequently, a present day sea depth line of 200 meters is considered an important threshold for determining the probable migratory routes of early modern humans.

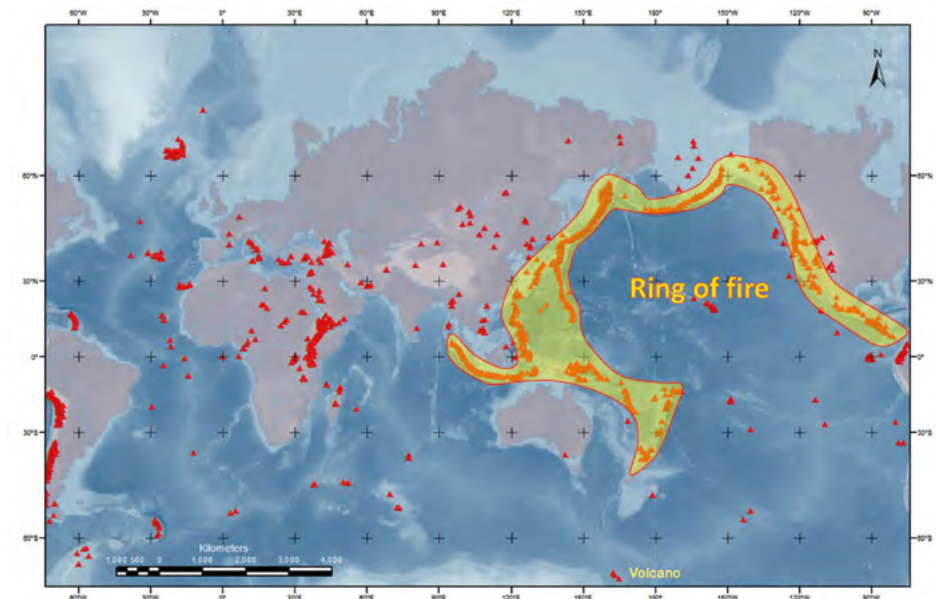
Geological Dynamics and Migration

In geology, the dynamics of topographical surfaces are controlled by two main forces:

- Endogenous: forces occurring from within the earth and powered ultimately by the movement of molten rock or magma. These drive the movement of tectonic plates and create volcanoes. Such forces are instrumental in the creation of mountains and other surface features.
- Exogenous: forces outside the surface of the earth. These include meteorological activities such as rain and wind which have the power to cause erosion, particularly through the way rivers shape the landscape. It also includes abrasion of coastlines by waves and wind. Gravity and earthquakes, meanwhile, cause landslides. Together, these forces work on the earth's surface, wearing away at it, and reducing its height.

The Pacific Rim is a geological region with especially high levels of volcanic and tectonic activity. Because of this, it is also known as the ring of fire.

The Ring of Fire is the most active area in terms of tectonics, where it is marked by the existence of active volcanoes.



Causes of Early Human Migrations

People can choose to move (voluntary migration) or be compelled to move (forced migration). Migration has been happening since ancient times, starting with the migrations of the first groups of people from East Africa who subsequently spread throughout the world. Migration has been happening in various ways: inter-continental, continental, or regional. Present day migration typically involves people moving from the city to a new country. Migration is a phenomenon which happens when a group of people move for the same reason. People migrate because of various reasons. It is a decision based on thinking about what is good or bad if they stay or move.

- Supporting Factors: People leave where they live due to problems or difficulties such as war, flooding, and food shortages.
- Attracting Factors: People also are motivated to move in search of a better life, be it a better climate, or better food supply.

In Indonesia, supporting factors involve natural processes in particular in coastal areas which are vulnerable to disasters such as tsunamis, or land subsidence. Inland, and in mountainous areas, common disasters include floods, volcanic eruptions, landslides and earthquakes.

The Law of Migration

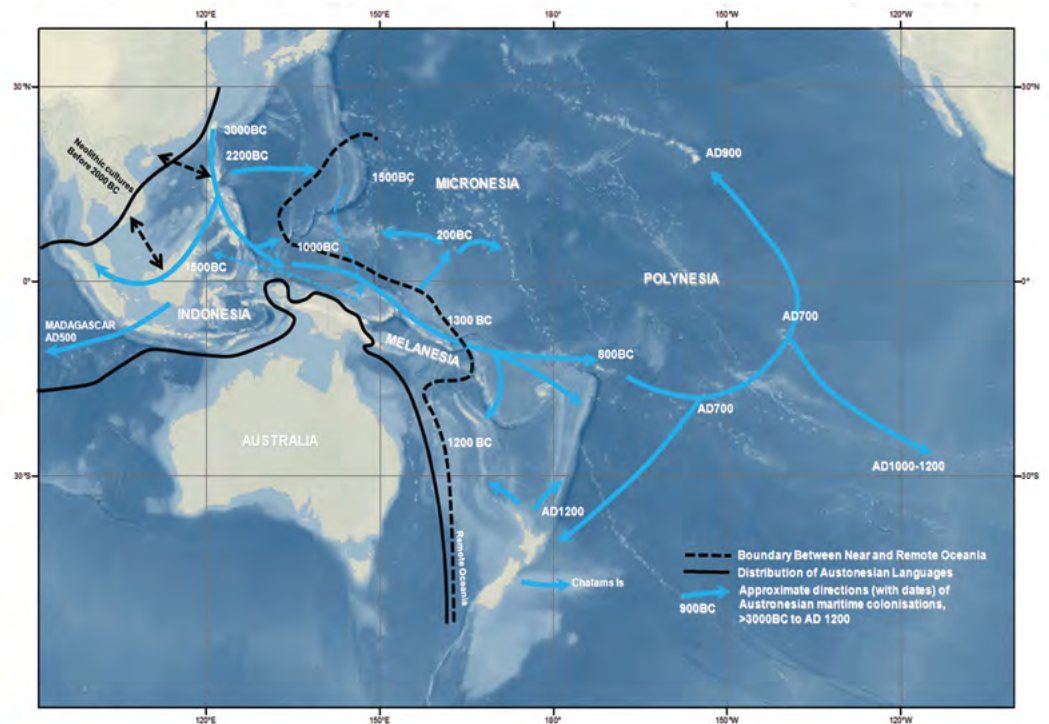
Causes of modern migrations were identified in the late 19th century by Ravenstein (1885).

- Most migrations take place over short distances;
- Long distance migration usually involves stopovers in towns;
- Most migration is from villages to cities;
- Most migrants are adults.

Migratory Routes through Indonesia

Human migration, known as the Out of Africa theory started 2 million years ago. In accordance with the advancement of knowledge and science that people had at that time, their movement and beginning of migration would be very much influenced by changes of coastal morphology, especially fluctuations in the sea level.

In contrast to when low sea levels turned the different islands into a connected landmass, inter-island migration of modern people has been going on since 7,000 years ago, made possible by sailing ability and boat building technology.

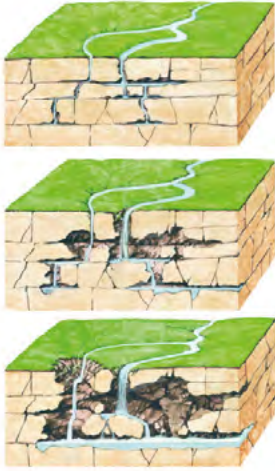


Proposed Austronesian migration routes (Bellwood, 2011).

Natural Resources and Survival Indonesia's Natural Resources

The main driver of migrations in Indonesia is the attraction of natural resources. People in the modern era move in search of places which are relatively safe, fertile or which are attractive due to their beauty. Bio natural resources consist of all living creatures on earth, such as: animals, plants, and microbes. Natural resources from plants are called vegetable resources, while resources from animals are called animal resources. Indonesia is a country with the second highest biodiversity in the world after Brazil. This high diversity has been magnet for human migration since ancient times.

There are very many functions and roles of bio natural resources for life. Most bio vegetable resources in Indonesia function as plants for foods, cloths, processed wood materials, and medicines. The vegetable natural resources used as foods can be utilized as sources of carbohydrate, protein, fat, and vitamins. Plants as sources of carbohydrate include rice, corn, and sweet potato, potato. Plants as sources of fat include peanuts,



Limestone formations in a cave used as shelter by early humans

coconut, and palm trees. Plants as sources of protein include soya, green beans, and other kinds of beans. Meanwhile, plants as the sources of vitamins are vegetables.

Clothing

Bio natural resources used in daily lives as materials for clothing or cloth, including hemp, the basic material of rayon, cotton, the basic material of cotton, and sisal which is the basic material of linen. With technological advancements, raw materials from plants for producing cloth can now also be obtained from pineapple and banana and other plants which have a high cellulose content.

Cloth made from plants is valuable because of ease of production and treatment. It also possesses desirable characteristics: strength, wrinkle resistance, and ironing free.



Map of limestone cave locations in Indonesia used as shelter. (source: Indonesian Speology)

Food and Shelter

Produce from the forest and the sea are very much needed in the modern life. Indonesia's natural resources, being in a tropical area, abundantly provide this need. It also includes the influence in ways to hunt animals and go fishing.

Early humans first made use of natural features such as caves as places to stay. Limestone caves were one of the most important natural formations used as shelter. There are many limestone caves in Indonesia for which there is evidence of use as shelters by

early humans. The map describes the cave locations in Indonesia which are known to have been used by early humans in Indonesia.

The ancestors of the Melanesians most likely inhabited limestone caves. A limestone cave can be formed in a number of ways. However, the most common is formation due to dissolution by water in the cracks of carbonate rocks. These cracks lead to the formation of underground rivers where the process of enlarging the size of the cave becomes faster because of the process of erosion by the underground river flow. If there is a lifting process or endogen, then the hole of this underground river will be revealed close to the surface and a long but inter-connected cave is formed.

After early humans had been inhabiting caves for some time, they found out how to make shelters from materials available in the forest, such as wood and leaves for the supporting wall and the roof. In the early stages of shelter construction, people relied on readily available natural materials such as wood, stones and soil. Different environments produced different materials and this would be reflected in different types of structures. More permanent materials like stones and soil were eventually used for the walls. Modern building still uses these natural materials for house construction.

Water

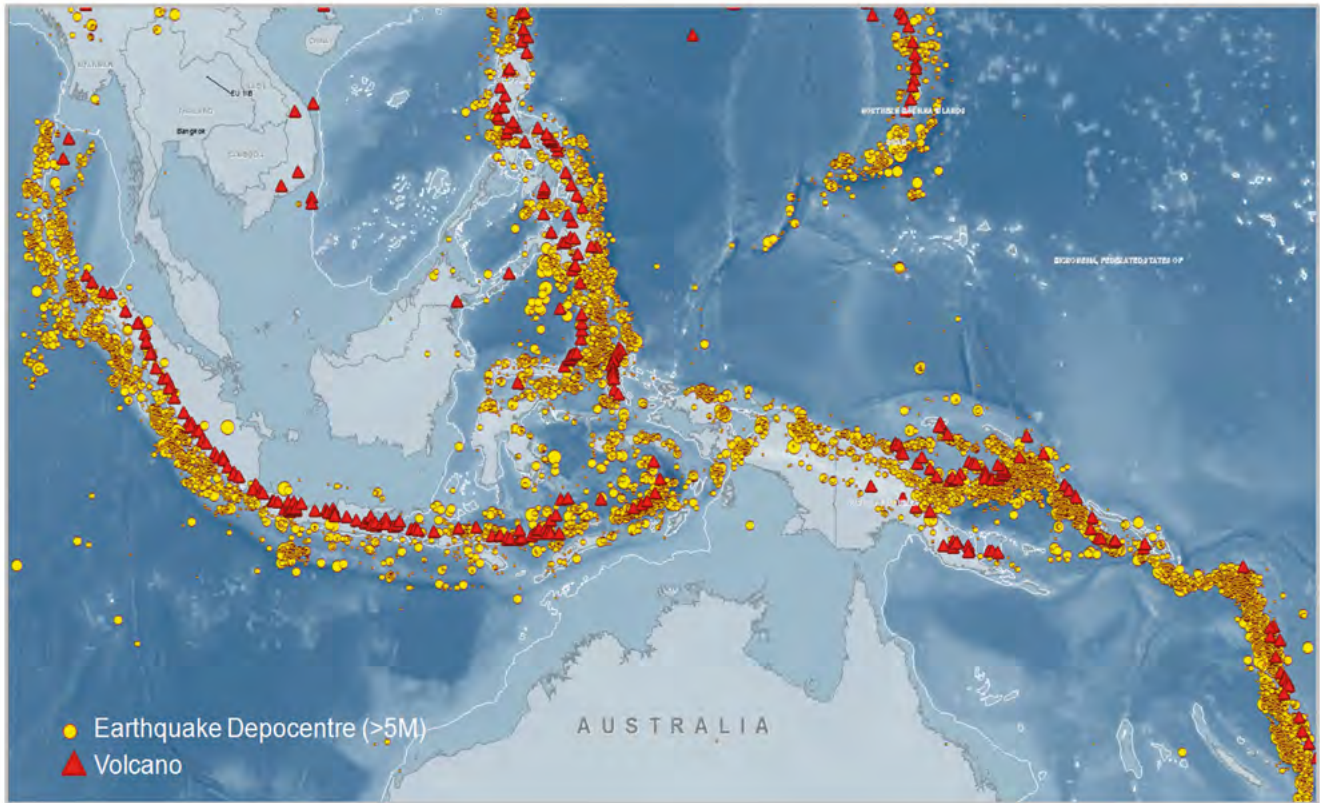
The Indonesian archipelago has quite a high rainfall but not all parts have abundant rainfall. There are still many places, due to topographical and morphological conditions, which have the possibility of having quite high water availability. The areas with island geography will have a very wet climate which will fulfill human needs for water and affect soil fertility. Water available on the surface is the easiest water to get. However, most water on the surface, especially water in rivers, is less-clear. This surface water is used for daily living.

Natural Disasters

Earthquakes and Other Disasters

Abundant water may also produce flooding in flat areas and landslides in hilly or mountainous areas. The choice of location to inhabit for migrating groups is critical.

Indonesia has many active volcanoes, in particular in the southern part of Indonesia in Sumatra and Java, and in part of the Banda Arc. Volcanoes are not only disasters, but also are important in creating fertile environments which are very good for farming. Volcanoes, therefore, can be something that may both attract or repel potential settlers.

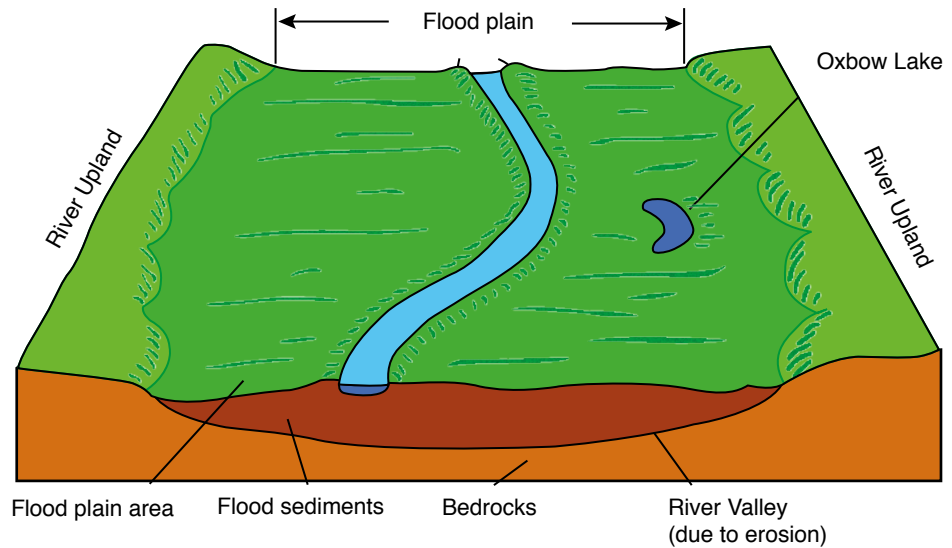


The distribution of the centers of powerful earthquakes (>5M) and the distribution of volcanoes in Indonesia. Almost all areas in Indonesia experience very high dynamics of natural phenomena.

Indonesia is an active tectonic area which means the movement of earth crust underneath is very active and dynamic causing a lot of earthquakes. These earthquakes are not only destructive because of their shaking but also because they can cause tsunamis. Tsunamis influences people living near the coast. The people in the south of Sumatra and Java islands will avoid living in places on the south facing coast.

Tsunamis can be life threatening disasters for those living along the coastline. Coastal areas which are close to the locations of sea earthquakes are very prone to tsunamis. Based on the record of history available in the Geological Agency, the Southern Region of Maluku is recorded to have been struck the most by tsunamis, a total of 19 times (in 1629, 1657, 1659, 1673, 1674, 1708, 1763, 1775, 1802, 1841, 1851, 1852, 1861, 1876, 1899, 1950, 1966, 1983, and 1996). Hence, the Eastern Region of Indonesia is also a tsunami-risk region, especially the regions facing the Pacific Ocean where different tectonic plates collide.

Fertile areas located in a river flood plain. This area contains a lot of water and nutrients in the ground. Flooding will contribute to nutrients essential for plant growth.

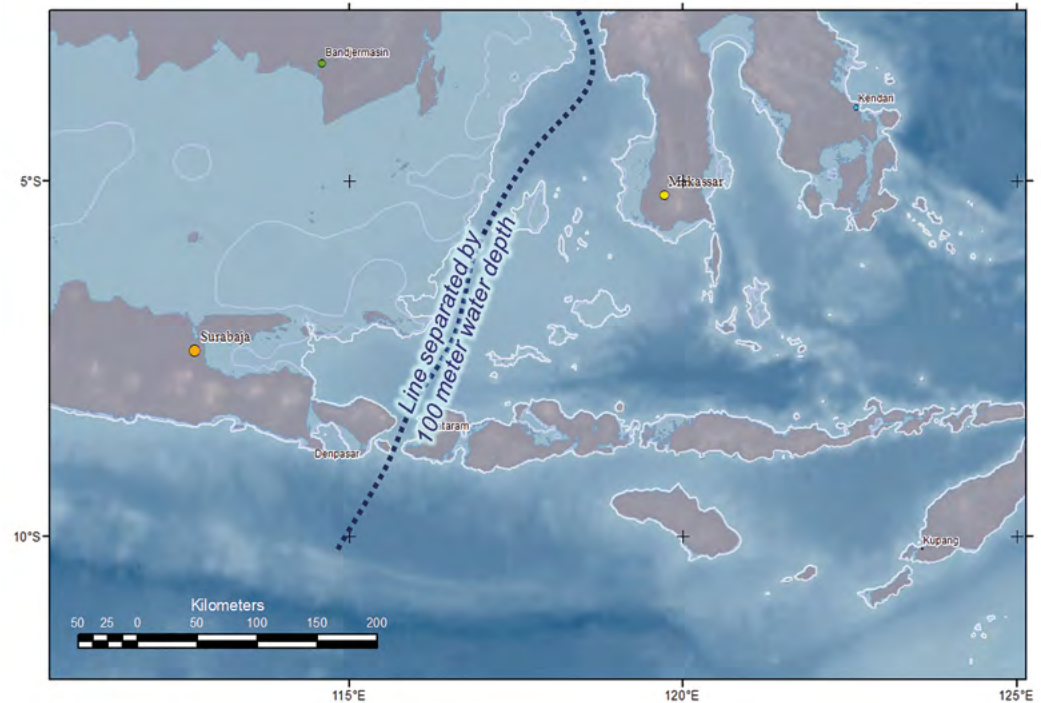


When tsunamis strike, they have the power to completely wipe out communities living near the sea. The fact that tsunamis strike at possibly long intervals of hundreds of years, the memory of former tsunamis may be lost and people move in to inhabit high risk areas. Floods and landslides are another form of natural disaster. Topographical conditions and rainfall are cause of floods and landslides. Humans must adapt their lifestyle to these phenomena or move to another area.

Floods are often disastrous but they also distribute nutrient rich soil to different areas. So floods can have a negative impact but also rejuvenate the soil by adding nutrition. The process of re-fertilizing the soil for farming and agriculture happens on a relatively routine yearly basis. This has made it possible for farmers to learn about cycles and use floods to their advantage. This remembering and learning from thinking about these cycles is found in farmers in remote areas but less so with those along the coast.

Nearly all of these natural phenomena can have both positive and negative effects. It is usual for both to happen simultaneously and dynamically. Other natural disasters including forest fires also occur in Indonesia. These natural phenomena will be the main supporting factors in forcing the inhabitants in Indonesia to move or adapt to natural behavior.

Next page is the simple cross-section of a river with the river shown in blue and a natural levee. On the right and left sides are flat areas called flood-lands shown in dark green.



The influence of geological conditions on the migration of modern people passing through Indonesia.

These flood-lands are composed of river sediments whose main settling mechanism is flooding. The line which limits the islands of the Sunda Exposure and the islands on the East. This line separated the migration of modern people before developing the capability of crossing the ocean.

Indonesia has both a strong pulling and pushing power. The natural richness and diversity of natural resources will attract people to migrate there. Disasters have the opposite effect. The migration of the earliest arrivals in the area spread eastward until it reached the barrier of deep water which separates the Asian and Australian areas. This is known as the Wallace line, an ecosystem border separating the eastern and western parts of Indonesia. The geologies of east and west are different, and are separated by ocean of at least 200 meters. The early migrations of people after the glacial period (< 20,000 years) were stopped by this border. It was only later when the people had seafaring abilities that they were able to cross this sea and proceed to disperse eastward.

Archeological Evidence

Kedulan Temple: Exploring the Geohazard Potentials of Jogjakarta and surroundings.

Geological findings are often of use in the study of archeology. An example of the impact of natural disasters on temples is discussed here. Kedulan Temple is located to the northwest of Prambanan Temple and has been known about for a long time. This temple, still in the excavation stage, is valuable because Kedulan Temple is one of the temples which have been buried underground. This temple is buried at a depth of five to seven meters. Because of the rocks burying it, studying the temple from the point of view of geology is interesting.

There have so far been many people interested in looking at this temple from the perspective of and archeology. There are studies on the temple construction and how it was abandoned most often taking a social or humanities perspective. Both archeology and geology study the past. Historical perspectives are likely to be of value in the present. Temples are part of human heritage and the rocks that cover them can be analyzed by geologists.

A Case Study: The Kedulan Temple

The excavation of Kedulan Temple is explained here. The location of the temple is at the coordinates of North Latitude of 07.44.33,7 and East Longitude of 110.28.11,1, about three kilometers to the Northwest of Prambanan Temple. The site is surrounded by rice fields and open fields, while the inhabitants' houses are found at a radius of around 300 meters.



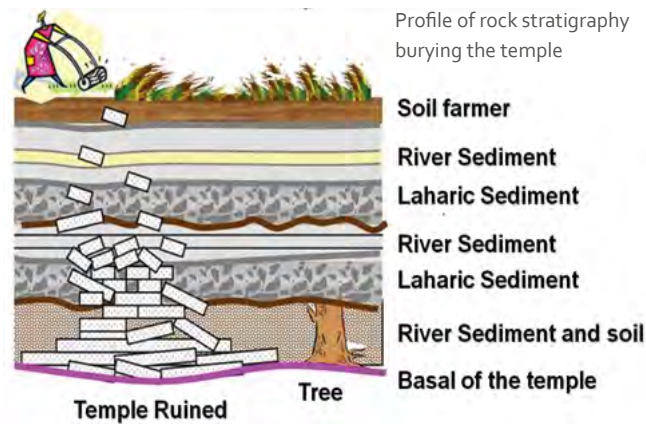
The excavation of the Kedulan Temple site

The site of the Kedulan Temple was discovered in 1993 during digging for sand because of the huge sand deposits in the area. These sediments are what buried the Kedulan Temple.

Only the Kedulan Temple has been fully researched, even though it had collapsed and was hidden in the sand. Archeological studies focus primarily on the site and questions of why it was abandoned, and why it was damaged, whether due to a natural disaster or for some other reason.

From geological research, it was found out that the temple was hidden because it was covered with mud flow from volcanic eruptions in different periods. The analysis of soil types which covered the temple, but which have now been removed or dredged, shows 13 layers. The layers have been identified as a form of sediment of volcanic mud flow. This means that the mud flow burying the temple came from 13 separate volcanic eruptions.

An analysis of the cross section of rock structure (stratigraphy) done during the excavating of the temple site shows the remains of trees in the same layer as the basic elevation of the temple. Up till then, no trees had been found by archeologists anywhere in the temple, though they were known to grow outside it. This led to speculation about the reason for the presence of trees and that the temple might have been different from other temples.



The results of a temporary reconstruction show that the temple was similar to Sambisari Temple which is located nearby about two kilometers away. It appears that the temple had been abandoned and not used before it was covered with the sediment of mud flow burying it.

The figure of the cross section of the relics above shows that there was a tree located under the mud sediment. This suggests that the temple was left not because it was buried by the mud but abandoned before being struck by the mud.

Further observation shows that the foundation of the temple was heavily damaged and broken. An inscription on a statue in the outer part of the fence of the temple complex which might mean that there had been an effort to move the temples before they were buried. The question remains about what it was that caused the abandonment of the temple. Two main hypotheses have been put forward: being struck by an avalanche or hit by an earthquake.

The morphological evidence about the surface and the rocks which buried the temple, do not support the avalanche hypothesis. Kedulan Temple is located on a hill but it was unlikely to have experienced an avalanche. If an avalanche had hit it, there would be sedimentary evidence, but what is found is mud sediment. However, the presence of a tree points to Kedulan Temple being abandoned before the mud settled and buried the temple.

The earthquake hypothesis seems probable. Despite the fact that Yogyakarta has only rarely experienced earthquakes, we can say they do occur. An earthquake in Yogyakarta in 2006 shows that the area is prone to powerful earthquakes, which can be very damaging and cause casualties. In addition, the examination of artifacts from the building in Taman Sari is similar to the damage expected in an earthquake.

The foundation structure of the temple showed that it was wavy where the rocks in the foundation were heavily damaged and in a mess. This lends weight to the idea that Kedulan Temple was abandoned due to a huge earthquake which happened near Yogyakarta. The temple was abandoned because it was struck by mud from Mount Merapi, not by a landslide. So far there have been many who are worried about the effects of a disaster from the activity of Mount Merapi to the north of this location. It is true that the disaster potential of the activities of Mount Merapi is significant, starting from the heat cloud slides (pyroclastic flows), the ground shaking vibration of volcanic earthquakes, and mud flows which are able to bury and destroy in a split second. However, even though many temples were buried in the area, Mount Merapi was not always the cause for a temple being abandoned and falling into disuse.

Earthquake Geology of Yogyakarta and its Surroundings

Yogyakarta and the surrounding area has the potential for earthquakes.

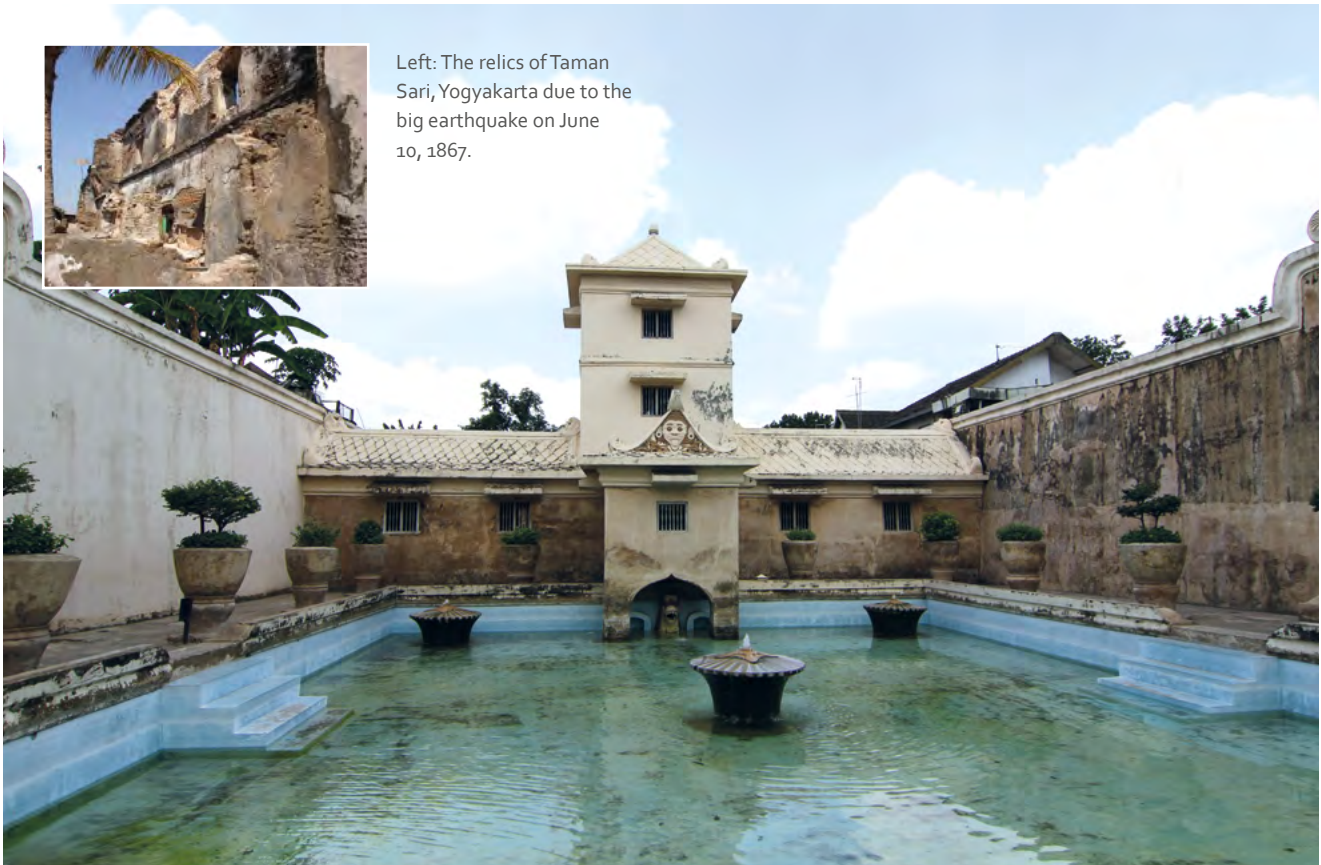
Sumatra has quite frequent, very active earthquakes. With such a very high frequency,

Sumatra has attracted research on earthquakes. There have been many small earthquakes (4-5 AD) happening along the Sumatran Fault, the Mentawai Fault, and also in the subduction zone which was one of the causes of the Aceh Tsunami (December 2004) and the Mentawai Tsunami (March 2005). Even though there are many earthquakes in Sumatra, small earthquakes also take place there quite often. In the meantime, Yogyakarta and the surrounding area, including the southern part of Java and the subduction zone of tectonic crust are the areas with less frequent activity compared to the average in Sumatra. Their frequency was around once in 150-200 years, but when it happens, its size was often of 6 or 7 RS. A very powerful earthquake which happened in 1867 destroying Taman Sari in the southern part of Yogyakarta was estimated to be of 8 MW.

The estimate of earthquake strength was based on the damage to Taman Sari (in the southern part of Pasar Ngasem Jogja) and also the casualties of up to 500 people. While this



Left: The relics of Taman Sari, Yogyakarta due to the big earthquake on June 10, 1867.



Above: Taman Sari Yogyakarta after renovation

was fewer than in 2006 where they reached 6,500, we need to consider that Yogyakarta at that time was not so crowded. The earthquake periodization in Java is not as frequent as that in Sumatra. It might have been that the faults in Sumatra were relatively more slippery so that they moved more often. In Java it was more because of frontal subductions. Notice the figure of the direction of plate movement in the Southern part of Sumatra (the tilted one) with the Java collision which stretching out west-east.

The quake periods have been studied from evidence from Kedulan Temple. The first period was around the 3rd-6th centuries, with the buildings on the southern wing of the main building (now it is a bit protruding on the surface). The material burying the foundation of the temple was the sediment from a pyroclastic flow in 3 layers, to which each was limited by a thin layer of paleosol, of which each sediment aged 1445 +/- 50 yBP, 1175 +/- yBP and 1060 +/- 49 yBP. The second period was the Temple, which existed in the north. From the inscriptions found, the temple was once renovated in the 8th-9th AD century. Then it was buried and excavated again in 940 +/- 100 yBP burying the foundation of the temple in the south east wing. Then the temple got struck by the earthquake which left the floor and the foundation wavy and most of the temple rocks and statues were thrown away up to 5 AD to the south-north west; after this, the temple was abandoned until it was engulfed by pyroclastic clouds in 1285 AD (740 +/- 50 yBP).

At that point, the surface of Kedulan was raised up to the level of the inner yard of the Temple where the Aren and Jokong trees grew, and then repeatedly it was covered with muds in the 4 periods of 1587 AD 360 +/- 50 yBP, 240 +/- 50 yBP, 200 +/- 50 yBP and an unknown date in the upper layer of fluvial.

The understanding on disasters could give insight that the last disaster would not always cause human settlements to be abandoned. Taman Sari used to be very beautiful where a park was built with a man-made lake and also a Mosque as well as a tunnel whose elevation was lower than the elevation of the man-made lake. The sketch of Taman Sari how beautiful it was, as described in an Old Book in Surakarta. Above is a part of Taman Sari which has been renovated while underneath can be seen the remains of the part of Taman Sari which was abandoned due to the Yogyakarta's earthquake on June 10, 1867. However, in 2003, a foundation of art-culture preservation from Portugal in cooperation with the Agency of Ancient Relics Preservation (BP3) and the Center of Environmental Study Gadjah Mada University (UGM), Yogyakarta, restored Taman Sari. Today, Taman Sari is again a beautiful and interesting place to visit. The beauty of Taman Sari suggests the heights of the lost Javanese civilization and its technology.

We can learn from Kedulan Temple and Taman Sari that the most dangerous threat of natural disaster in Yogyakarta and its surroundings might be earthquakes. It may be asked why we never learnt about earthquakes from history. The answer, in Javanese is "*Simbahku ora ngalami, bapakku yo ora ngandani, aku yo terus ora ngerti*" (My great grandfather did not experience it; my father did not tell about it; and I do not know it either). This can be put down to the frequency of devastating earthquakes in Jogjakarta being very seldom, once in 150-200 years. Hence, people have to be diligent in recording and reading old notes on people's life in the past. This could be useful for survival in the future, either through the writing or the heritage.

Ethnogenesis

Ethnogenesis and Geology

Ethnogenesis is a process of the forming of an indigenous ethnic group. The process is studied in ethno-ecology and ethno-geography. How an ethnic group interacts with its habitat, whether there is a special bonding between the ethnic groups and the land they are inhabiting which will help form their own identity are some of the questions asked in ethno-ecology and ethno-geography. The branch of ecology which studies it is sometimes called cultural ecology.

Geology is related to ethnogenesis and geological settings influence ethnogenesis. Climatology also has a big influence. The possible relationship between the people and the physical environment is often seen in patterns of ethnic culture, migration and persistence and survival. Leo Nikolayevich Gumilev (1912-1992), a thinker of ethnogenesis and a writer of a famous book in the field, "Ethnogenesis and the Biosphere" (Gumilev, 1990), said that ethnic groups are formed by certain physical geographic and geological conditions on the surface of the earth. Gumilev introduced the term "ecotones" which were the sharp limits between geological-ecological regions (ecoregions) which were involved in the forming of ecoregions that led to the establishment of new cultures. According to Gumilev, in the limits between mountains and land, forests and water, the people would need adaptive strategies in order to use the two ecoregions which are adjacent to ecotone. So, cultural adaptation plays a role in ethnogenesis.

In addressing the question why the Russians differ from the other Slavs, when their original culture is the Slavic culture, and when, why and to which direction do the differences start to happen, Gumilev proposed that the Russians developed in the transition area between forest and meadow north of the Black Sea.

Ethnogenesis is related closely to the origin and the distribution of human races. The overall problems of the origin and the distribution (migration) are geological problems because human beings come from and migrate through the settings of lands and seas formed by geology.

Where do human beings come from? Some major religions, Christianity, Islam, Judaism, have it that human beings came from the Garden of Eden, or the Garden of Heaven which was thought to be in the region of Mesopotamia, part of Iraq now. However, physical anthropologists suggest it was in central Asia. These regions once had a gradual uplift. Together with the uplift, there were groups of migrating people and animals, which gradually, also went to the lower regions.

It has been suggested that human beings did not have one origin (monogenesis) but there were several centers of distribution (polygenesis). This is comparable to the battle of two theories in paleoanthropology that hominids, for example *Homo erectus* and human beings (*homo sapiens*), come from one place (Africa) then spread out throughout the world (the "out of Africa" theory) or that the origin of hominids and human beings is plural, from different places (the "multiregional" theory). However, there is consensus among experts that the origin of human beings is in Asia or Africa; and not Europe, America or Australia.

The role of geology in ethnogenesis greatly influenced the migration of human beings. After migrating and inhabiting new places, there was the process of establishing a new race or ethnic group whose characteristics were influenced by the new physical environment they inhabited and its geography, geology, and climate. Hence, indirectly or directly, geology played its role in the establishment of different human populations.

The nations which became the actors in the historical drama of human beings in the beginning, in Mesopotamia, and who had light-colored skin were the Caucasoids. The other two kinds included in *homo sapiens* were the Negroid and the Mongoloid but they did not inhabit the Middle East.

Based on the characteristics of language, in the Middle East or exactly in the arc of the Fertile Crescent Moon (Egypt, Palestine, Mesopotamia) the Hamite and the Semite were found. The Hamite spread out to the north and the north east of Sahara in Africa.

The Semite spread out to the Arabian Peninsula and its surroundings. In the meantime, along the north coast and east of the Fertile Crescent Moon, the Indo-Europeans emerged from the region of Georgia in the hills of the Caucasus mountains in present day southern Russia. From there, at around 4,000 BC they spread out to Europe and Iran.

The Semite and the Caucasoid met in one ecoregion or ecotone to compete. The competition would then further migration. The migration was because competition had created the east Indo-European to settle in Iran. The Hettit or Asian Turks inhabited the Anatolian peninsula. In the Nile Valley in around 2,000 BC a competition between the Hamite and the Semite arose. The seizure of the fertile ecoregion became the origin of a dispute. The fertility or arid of ecoregions is influenced by the geological conditions (geomorphology) and climatology.

Between 30,000-15,000 BC, the Mongoloids migrated into the American continent following the land paths formed by geology. At that time, the Earth was in the grip of a great ice age. The surface of sea was very low because became locked up in polar ice. The Bering Strait which now separates Eurasia and America, at that time was a land bridge which was covered with snow. This land bridge was traversed by the Mongoloids from Asia.

After entering America through the land bridge formed by geology, the migrants moved further into America. Some turned to the east towards the Hudson Bay in the region of Canada right now and they became the Eskimo. Some continued their trip to the south through the hills of Rocky Mountains and Andes Mountains and some others spread out to the regions in the east up to Appalachia Mountains to become the Indians in North America (for example the tribes of Mojave, Dakota, Apache, Cherokee), in Central America (the Mayan), and in South America (the Incan). All of those Eskimo and Indians were of Mongoloid race.

The new advancement in genetics (molecular biology) has helped the human beings' migration map through the land and seas formed by geology. Here are some new conclusions:

1. African Cradle. Most paleoanthropologists and geneticists agree that modern human beings (*Homo Sapiens*) appeared around 200,000 years ago in Africa. The earliest fossils of modern human beings were found in Omo Kibish, Ethiopia. The place is now registered as a UN World Heritage site. The oldest fossil outside Africa was found in Israel but this group seemed not to migrate further and became extinct around 90,000 years ago.
2. Out of Africa. The genetic data showed that a small group of modern human beings left Africa for good between 70,000-50,000 years ago and finally replaced all of the previous human species such as the Neanderthals. All of the non-African nations right now are the descendants of these first migrants who had migrated to the north of the Red Sea or went across its narrow crack in the south.

3. The first Australians. The findings of two ancient sites—the artifacts of Malakunanja (North Australia) and the fossils from Mungo Lake (South Australia) indicated that modern human beings had followed the coastal route along southern part of Asia and reached Australia around 50,000 years ago. Their descendants, the Australian Aborigines, have genetically been isolated in this continent up to now. Their genetic makeup is different from all the Australians who migrated in modern times from Europe.
4. Early Europeans. The paleoanthropologists have long predicted that the European settlement followed the route from north Africa. However, genetic data shows that the DNA of the west Europeans right now are similar to the Indians. Therefore, it is predicted that there has been migration within the Asia itself in around 40,000-30,000 years ago.
5. Populating Asia. Around 40,000 years ago, human beings moved to the Central Asia and arrived in the meadow lands to the north of the Himalayas. At the same time, they migrated to Southeast Asia and China, then finally reached Japan and Siberia. Genetic data shows that human beings in northern Asia eventually migrated to America.
6. Into the New World. When did the first human beings migrate to America is still a hot debate among the paleoanthropologists. The genetic evidence showed that the event happened between 20,000-15,000 years ago when the sea level was low and the land bridge connected Siberia and Alaska.

During the ice age the interior of North America was covered by a deep layer of ice and snow. So the Mongoloid migrants took a route along the west coast following the Rocky Mountains all the way to the Andes. These humans had reached the southern tip of America by 14,800 years ago as evidenced by the fossils and artifacts which were found at Mount Verde, Chile.

The last vast region in the world which was populated by modern human beings was the groups of islands in the Pacific Ocean the regions known as Micronesia, Melanesia, and Polynesia⁴. Before this region was inhabited, human beings had settled in an area known as Close Oceania which comprised Australia, Papua New Guinea and the Bismark Islands. The first human beings reached the islands of Melanesia about 3,000 years ago. Others kept on sailing till they the farthest islands in the east. Easter Island was first inhabited in around 300 BC. The most southward land, New Zealand, was reached in around 800 BC. Evidence

from half-type mitochondria (female genetic cell) and Y chromosome (male genetic cell) showed that the Polynesians were descended from the inhabitants of Southeast Asia and Taiwan, mixed with the people from Melanesia⁵.

Based on the evidence from artifacts and historical linguistics, Peter Bellwood⁶ explained the ethnogenesis of the nations inhabiting the region bounded by Madagascar-Easter Island and Taiwan-New Zealand. All the people there originated from a Taiwanese homeland around 3,000 BC and migrated to the south and west reaching Indonesia between 1,500 and 500 BC. The Polynesian islands were populated by further migrations from Melanesia. The peopling of the Pacific proceeded. Easter Island was inhabited in 900 AD, and Hawaii in 900 AD. The last place in the Pacific region to be inhabited was New Zealand in 1,200 AD.

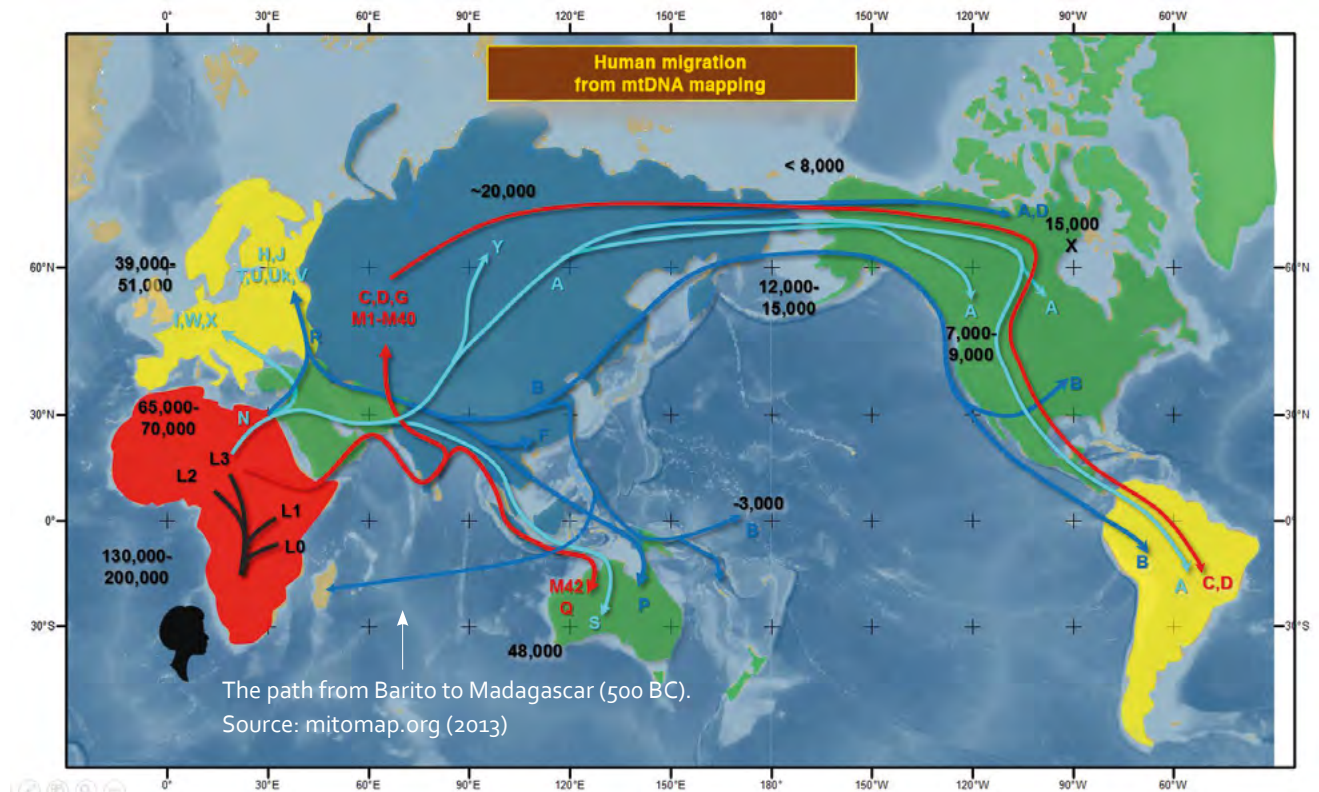
Research based on genetics, archeology and linguistics shows that the Polynesians came from Southeast Asia and Melanesia. There are differences of opinion about the details of the dispersals. However there is strong rejection of the idea proposed by Thor Heyerdahl, the Norwegian explorer, in his famous book "*Kon-Tiki Ekspedisjonen*"—1948, Gyldendal Norsk Forlag, which suggested that the Polynesians did not come from the west or southwest but from the east, from Peru, South America (Heyerdahl, 1950).

Thor studied about the legend of Peru about Virakocha, the King of Sun, who was the leader of the whites in Peru who had become extinct. Virakocha was Kon-Tiki or Illa-Tiki. Kon-Tiki was the highest priest and the king of sun for the whites in Peru who had left the relics of the buildings along Lake Titicaca, the highest lake in the world located in Andes Mountains by a war. The legend showed that Kon-Tiki was attacked by another leader named Cari who came from Coquimbo valley. In a fight in an island, in Lake Titicaca, many Peruvian whites were killed, but Kon-Tiki with his closest men succeeded in running away and getting across Pacific Ocean then disappeared in the west. Thor found that the inhabitants of the islands in Polynesia worshipped their main god called Tiki, son of the sun, whom they believed as the founder of their race. The event was considered by Heyerdahl to have happened around 1,100 AD.

Therefore, in order to prove his hypothesis, Thor, together with five of his men, sailed by using a raft made from nine logs of balsa wood taken from Lake Titicaca in Andes Mountains. This courageous expedition was named Kon-Tiki Expedition, and so was the raft. Thor sailed from Calloo, near Lima, Peru to Tuamotu islands near Tahiti in Polynesia on April 28-August 27, 1947, cruising along 8,000 km and succeeded in reaching the destination safely by making use of Humboldt current from east to west.

Did this feat help prove that the hypothesis of Thor Heyerdahl was correct? The solution of the ethnogenesis problem should be approached from various aspects: archeology, anthropology, linguistics, genetics, climatology and geology. The increase and decrease of sea levels during the Holocene period which was researched by geologists and presented in the detailed paleogeography can help the solution of ethnogenesis problems.

In the Y chromosome of males, there is a genetic biosign called M168. It is a biosign of the first mutation result which appeared 50,000 years ago in a group of modern African males who left Africa and passed it on to all males around the world. The Eijkman Institute in Jakarta is a genetic molecular institute which is involved in the mapping of all of races in Indonesia as part of the project of mapping all of the races in the world. Using complicated genetic techniques, mapping can be produced for times up to hundreds of thousands of years in the past, so that the mapping of human migration and history can be identified.



Map of main early human migrations based on Mitochondrial DNA with approximate dates.

Geology, a historical science, can play a role in this because the migration of modern human beings or hominids happened on the land and the seas formed by geological processes.

Malagasy Ethnogenesis

Madagascar, the fourth biggest island in the world, was isolated in the southeast of Africa since it was separated from Africa approximately 165 million years ago. This isolation is behind the unique biodiversity where 90% of its animals and trees are endemic, existing only in Madagascar and not anywhere else. Its abundant natural resources include big logs, minerals, and jewelry. One third of all of the sapphires traded in the world come from Madagascar.

Madagascar has a forest of protruding stone towers (National Geographic Indonesia, September 2010).

However, rich natural resources in a developing country do not guarantee the welfare of its people, as often the people are remain poor. Social scientists call this phenomenon the "resource curse" (Auty, 2002). Madagascar has a number of problems typical of a developing country: the pressure of population, internal political chaos, smuggling, and looting. People loot the wood, protected by the authorities who are bribed by money from other countries. People in the government also enrich themselves. This has put pressure on the environment. Slowly but surely, Madagascar's environment is being damaged.

In Madagascar, the Malagasy language is used. Malagasy is an Austronesian language, the same family as Indonesian. A looter of Indian rosewood (*Dalbergia latifolia*; Indonesian 'sonokeling') said, "*Aleo maty rahampitso toy izay maty androany*"... (better to die tomorrow than today) explaining the reason for his actions due to hunger and poverty. However, the language he used would seem familiar to anyone who knows the Indonesian language.

Between around 3,000 BC-1,000 AD there was a dispersal of the Austronesian people south and eastward to occupy the vast are which it covers today, bounded by Madagascar in the west, Taiwan in the north, Easter Island in the east and New Zealand in the south (Bellwood, 2000). This is based on work by archeologists, linguists, and geneticists. However, geology can also contribute in the discussion.

The majority of speakers of Austronesian languages are found in Indonesia. The western border of Austronesian language group is Madagascar. It is now known that the ancestors of Madagascar's inhabitants were people who originated in Indonesia (Simanjuntak et al., 2006). The question is where in Indonesia did they come from. One view, first proposed by Dahl (1951), is that the people speaking this Austronesian language in Madagascar

originated in Barito, southeastern Kalimantan (Adelaar, 2006). Malagasy is related to a number of languages spoken there: Maanyan, Witu Village, Paku, Samihim and Lawangan.

Adelaar (2006) noted that in the language of Malagasy there are a number of cognates found in Malay, Javanese and the languages of South Sulawesi. Some examples are:

Malagasi	Malay/Indonesian/Javanese/other language	English
varatra	barat	west
varatraza	baratdaya	south west
tsimilotru	timurlaut	north east
ranto	rantau	shoreline
tanjona	tanjung	cape
fasika	pasir	sand
vatoharanana	batukara ng	coral reef
horita	gurita	octopus
fano	penyu	turtle
vuavitsi	buah betis	calf (muscle)
mulutra	mulut	mouth
hihi	gigi	teeth
tratra	dada	chest
tanana	tangan	hand
afi	api	fire
ala	alas (hutan in Javanese)	forest
rama	rama (ayah)	father
rahadyan	raden	prince
leha	lekka (pergi, Sinjay, Bugis dialect)	go
matua	matua (tua, Makasar, Bugis)	old
huta	kota (mengunyah, Maanyan)	town

This evidence supports the claim that the language used by the Malagasy tribe in Madagascar is related to the languages found in Indonesia. There is also genetic evidence for the Kalimantan origin of the Malagasy people. Another interesting paper in genetics was Hurles et al. (2005) which looked at genetic evidence for the dual origin of the Malagasy in island Southeast Asia and East Africa. Using the Y-chromosome from the paternal lineage and mitochondrial DNA from the maternal lineage, the gene pool of modern Malagasy inhabitants can be determined, and also their geographic origin.

The inhabitants of Malagasy had a mixed origin from East Africa and Southeast Asia.

The inhabitants of Malagasy did not show the kind of inherited genetic diversity as found in the inhabitants in the newly inhabited small islands such as the islands in southwest Pacific. Rather, they must have had a migration history which was direct and not gradual with each migration bringing different descendants. The diversity of genes from the maternal lineage of Asian mothers was higher than that of African mothers. This showed that the migration from Indonesia was more dominant than that from Africa.

The distribution of Y chromosomes of Malagasy inhabitants was more similar to that of the people in Banjarmasin in Kalimantan than any other Austronesian group. It is thought that the migration from Kalimantan took place around 500 AD (Bellwood, 2006). The most likely route was around the coast via Sri Lanka and India, given their seafaring ability.

There are two main views about the origins of the Austronesians. The out of Taiwan view is that the Austronesians originated in Taiwan and spread southward via the Philippines, spreading out later throughout the Indonesian archipelago. Thereafter, they spread eastward towards and into the Pacific and south as far as New Zealand (Bellwood, 2006). The other view is that the Austronesians originated in the Wallacea region in Indonesia, from where they spread out due to the Quaternary transgression (Oppenheimer and Richards, 2001).

Geology can make a contribution to questions of migration and dispersal of the ancestors of the Austronesians by looking at how supportive different environments would have been at different points of time. Evidence comes from paleoclimatology and paleogeography. If we would like to understand the origin of a nation its ethnogenesis, there are four fields which can be useful: geology, archeology, linguistics, and genetics.

Conclusion

The geology of an area includes the conditions of its rocks and its dynamics. These factors are important in determining migration processes, settlement and development of human beings. Geology does not only deal with static but also dynamic conditions. Geological processes and results can influence whether people will stay in an area or want to migrate somewhere else. This will continue in the future influencing the development of civilization. The uniqueness of Indonesian geological conditions gives Indonesians advantages.

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CHAPTER 6

Desy Usmany & Yudha P. N. Yapsenang

The Dynamics of Melanesian History in Indonesia

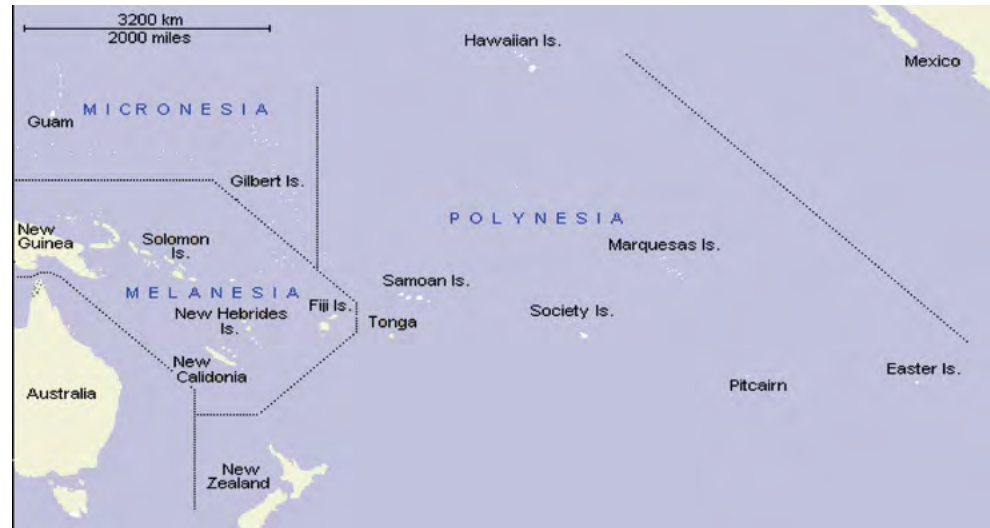
The Melanesian Region

The term Melanesian first appeared in the meeting of Geography Society of Paris on December 27, 1831 used by Dumont d'Urville, a French explorer to describe the ethnic population in the Pacific region which has black skin and curly hair. Dumont also categorized the population in the Pacific islands to four areas of ethnicities, namely Polynesia ('many islands'), Micronesia ('small islands'), Malaysia (Malay islands, i.e. islands of Southeast Asia) and Melanesia ('black islands'). Furthermore, he categorized the Pacific population into two groups based on their physical traits, namely the segment of the population whose skin is yellow or copper-colored, among whom are the inhabitants of Polynesia, Micronesia and the islands of Southeast Asia. The second category is the population with black skin and curly hair (Melanesia), which includes the island of New Guinea, the Solomon Islands, Vanuatu, Fiji and New Caledonia.

The Map of the Melanesian area which initially only included the island of New Guinea, the Solomon Islands, Vanuatu, Fiji and New Caledonia, has been developed further, in line with the new findings on the relationship of the Melanesian languages in the areas along the Pacific in Map I, with the population in Papua. The Melanesian groups, which according to experts, a number of linguists who maintain the terms Melanesia as part of the Austronesian language family (AN), distinguish the groups as the AN and Non-AN Melanesian groups. The group belonging to AN family is called Austro-Melanesia and Non Austronesian called Melano-Papua. The naming of these two groups of Melanesia, in Papua, is known as the AN language family of Papua and the Non AN₃ language family of Papua.

J. C. Ancaux assumed that Melanesia was the result of the development of the Papuan languages under the influence of the Austronesian language. He took samples from the island of Biak, some from Yapen Island, Saireri Bay, Berau bay to Etna bay, where there were a number of languages that were categorized as Melanesian languages. Muliono's (1963) research on languages in West Irian suggested that Melanesian languages were spoken widely in Papua (Irian Barat), among others including the languages in Yapen

Map of the Melanesian region in the Pacific



Island, Raja Ampat, Biak, Waropen, Wondama Bay, along the Gulf of Cenderawasih, the western end of the island of Papua from Sorong to the south along Sele strait coast, the area around the Bintuni bay, Arguni bay to the coastal areas of Etna bay. This research has been increasingly complemented by Blust's research, in which Blust groups Austronesian East subgroups to include Biak, Noemfoor, Ormu, Wood Pulo and Tobati which together with the language of the islands of Raja Ampat and South Halmahera, are seen as a bipartite branch. Those discoveries ultimately have made the region of the distribution of Melanesian languages more widespread by including Papua and small islands in its vicinity.

Blust (1976) discussed the primary branches of the Austronesian languages. The results of this and other studies show the linguistic relationship between Papua and the regions outside Papua. Blust (1984) divides proto-Austronesian into two parts, namely Formosa and Malay-Polynesian. Blust divides Malay-Polynesian languages further into two branches, namely Western Polynesian and the Central-East Polynesian. According to him, the Central-East Malay-Polynesian language extends into the Bima language in Sumbawa Island, Lesser Indonesia as far as Aru and towards the northwest of Central Maluku, including Sula islands. In addition, some of the Central-East Malay-Polynesian languages

are still not well known, scattered along the South coast of Irian. Blust also confirmed that several repeated changes in Central-Malay-Polynesian may have been independent, when Blust saw the migration of a few people in the South Moluccas towards the south coast of the Bird's Head peninsula on the island of Irian. Furthermore, according to Blust, the Austronesian languages in the South-West Halmahera and Papua indicate the transition between Austronesian languages of Indonesia and Austronesian languages of Oceania (Melanesia, Polynesia and Micronesia).

Masinambow (1984) shows the map of the phyla of Non-Austronesian languages in Irian Jaya which has been modified and removed from the map in *Papuan Language stocks: the Western New Guinea Area* by Wurm and Hatori (1981). On the map, the linguistic relationship between Papua, Maluku and East Nusa Tenggara is obvious. The relationship of languages is made clear in the paper of Inyo Fernandes, who discussed the study of Austro-Melanesian and Melano-Papuan languages in Papua, in the western group of Melano-Papua (Non AN); there are also languages which exhibit characteristics that are not much different and are convincingly the same as those in inland regions of Melano-Papua languages. Similar groups were found among others in the province of North Maluku, including the languages of Ternate, Tidore and some languages in North Halmahera. Similarly, belonging to the group of Non An Melano-Papua are languages of the groups of Alor-Pantar-Timor in NTT province, as discussed Abui, Woisika and Blaggar, also the language of Buna and Kemak, in the border area of Atambua and Timor Leste. Besides, there is another language group that includes the languages of Fataluku, Makasai, at the eastern end of Timor Leste and the language of Oirata in Southwest Maluku. Similarities in languages in northern Halmahera and Papua can be traced to the reconstruction of the initial language or proto language, whereas in the language group of Alor-Pantar-Timor in NTT, the language in Papua group of West Papuan Phylum, has Historical relationships through the study of linguistics diachronic and its evidence (Gordon, 2005).

This opinion above is reinforced by the data on Indonesian languages issued by SIL Indonesia (Lewis et al., 2015), which state that there are some languages in Maluku that have relationships with a number of languages in Papua and East Nusa Tenggara, namely:

- The Galela language, which has similarities with the languages that exist in the northern part of Papua.
- The Gamkonora Language, Ibu Language, Laba Language, West/Outer Makian Language, Modole Language, Pagu Language, Sahu Language, Ternate Language, Tidore, and Waioli language with the languages that exist in the western part of Papua.

- The Tobelo Language, which has similarities with the languages that exist in the western part of Papua and Raja Ampat in Papua.

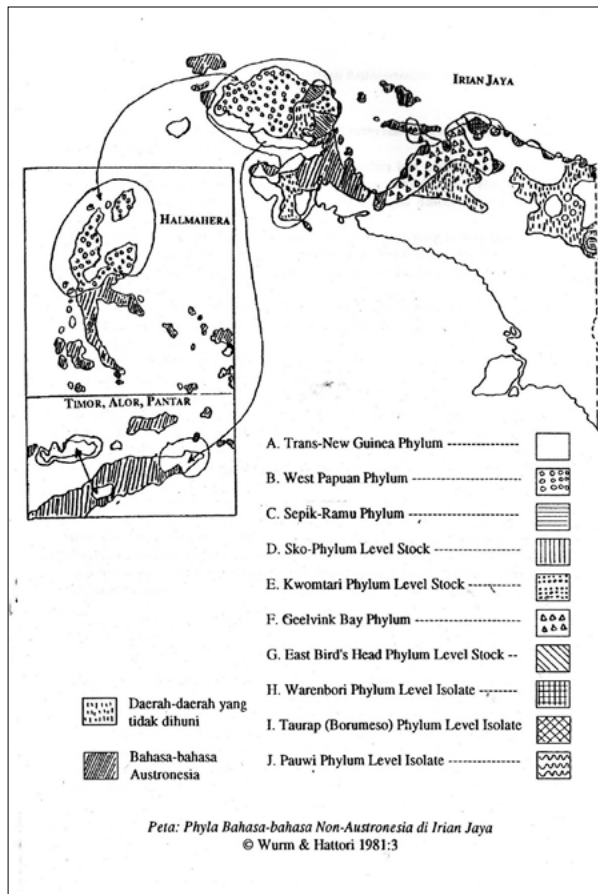
The languages in East Nusa Tenggara which have similarities with the languages in Papua, specifically the language used in the south of Kepala Burung Papua, namely: the Abui Language, Adang Alor Language, Kelon Language, Kui Language, Kula language, Lamma Language, Reta Language, Sawila Language, Tereweng Language, and Tewa Language.

The languages in Papua, which have similarities with the languages that exist in East Nusa Tenggara are: the Arandai languages (Yaban, Jaban, Dombano, Sebyar) which are included in the Bintuni Bay region, Duriankere language in Raja Ampat, Kaburi language in the southern part of Kepala Burung, Kais language in South Sorong Regency, Konda

language, Kokoda language, Puragi language in South Sorong, Suabo language in Inanwatan, and Yahadian language in Metemani South Sorong that has similarities with Timor language, Alor language and Pantar language. The languages in Papua, which have similarities with the languages in Maluku, are: the Dusner language in Wandamen, Erokwenas language at Bomberai Bay in Fakfak, Iresim located in the southern part of Cendrawasih bay, Kawe language in the southern part of the islands of Waigeo, Kurudu language in Yapen Islands, Lengeyem language in the island of Waigeo, Maden language, Maya language, Palamul language in Raja Ampat, Marau language and Munggui language in Serui, Matbat language in Misool, Papuma language, Pom language and Roon language in Serui, Tandia language in the Wandamen Gulf, Wandamen language, Waropen or Wonti language, Woi language in Serui, and Yaur language, in Cenderawasih bay which has similarities with the language in South Halmahera.

The relationship can be seen from the similarities in the structure of the language, for example the languages of the region of East Nusa Tenggara and East Lombok, including the languages of Papua, Bird's Head phylum, which has similarities to that in the Bintuni Bay, and the southern part of Papua. While the languages of the Maluku Region belong to

Map: Phyla of Non-Austronesian Languages in Irian Jaya/Papua
Wurm and Hatori (1981)



the Austronesian family they are distantly related to languages in the Regions of Biak, Waropen and Raja Ampat.

The language relationship between Papua, Maluku and East Nusa Tenggara is strengthened by traditional architectural forms which are almost the same, as shown in the following pictures of dwelling houses:

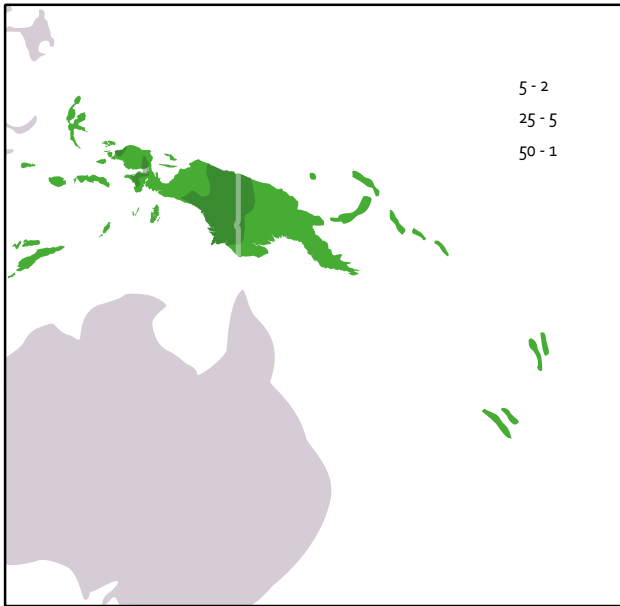
In addition to language relationships, there are some similarities in the culture of Papua, Maluku and East Nusa Tenggara, including systems of marriage, the circle of life, initiation, headhunting, the names of land and many others. In the marriage system, there are several similarities of the marriage system known in Maluku, Papua, East Nusa Tenggara, namely the request marriage system, running marriage system, and entry marriage system. Besides this, in the area of East Nusa Tenggara, and Papua (Sentani and Biak, there is also a continued marriage system, based on interviews and observations in the Sentani area). In the past, in the request marriage system, the elderly male contributed more to find a mate or life partner for his son. One of the ways was through an indigenous dance party or a youth dance (based on interviews conducted in several ethnic groups in Papua in 2013, and 2014. Besides that, in the marriage system of the people of Maluku, East Nusa Tenggara and Papua, there is a gift exchange system, such as payment of dowry from the male to the female, usually paid back by the provision of a reply from the woman.

In the culture of the life cycle, it is considered a taboo for a mother who is pregnant and about to give birth or a girl who is having a menstrual period or menstruation to live with their family. In this view a mother who gives birth or a girl who menstruates will discharge dirty blood or she is experiencing a period of cleansing, so that if she got into contact with others, especially her husband, it would lead to bad luck or lack of luck on the activities of the livelihood of the husband or other people in the house, for example, while hunting. They believe if they come in contact with women who are menstruating or giving birth, it would cause them not to be able to catch the hunted animal at all. For the woman who is about to give birth or menstruating, normally a particular home or cottage will be built. It can be in the forest, but it can also be behind the main house. However, if it is behind the main house, it should be at a considerable distance. In this cottage the mother in labor or girls who are menstruating are lodged until the process of childbirth or menstruation has been completed. For example the Yakaka house in the people of Abun and Karon (Kridalaksana, 1991), Liliposu house of the people of Huauulu Seram (Koentjaraningrat and Bachtiar, 1963), and some ethnic groups in East Nusa Tenggara.

After a child is born, there is a tradition of welcoming the new member to the family. The ritual is done as a sign of gratitude for the birth and safety of the mother and child. When the ritual is performed, usually the child will be given a name that has meaning based on the existing culture of each ethnic group existing in all three areas above. The name is called a "land" name, which is derived from the name of the ancestors, the name of a place, the name of a particular god which has a good meaning, besides the name after the bath or wash or the current name. Furthermore, once a boy is considered old enough, he will go through initiation an (traditional education), when he is taught elements of traditional knowledge including methods of warfare, including headhunting.

Headhunting culture is conducted by ethnic groups living on the north and the south coast of Papua, Maluku and Seram, whereas in East Nusa Tenggara, it is conducted by the people of Manggarai. According to Muridan Widjojo and Kal Muller, headhunting aims to initiate, his own and his group's existence, as well as efforts to absorb foreign powers of the victims of headhunting and foreign objects looted. Headhunting also serves to raise the prestige and obtain women and slave labor (Blust, 1974).

In addition to cultural similarities in the people of Papua, Maluku and East Nusa Tenggara, the link of these three areas can also be seen through their mythologies, such as the mythology of east cloth, Nunusaku mythology and the history of Flores. Among the population of Flores, there is a history of the migration of the Maluku people to Flores. As a result of the migration, according to several people of Flores, they actually may not be married to people from Maluku due to their kinship. Meanwhile the migration of Papua people from Biak Noemfoor, is one of the largest migrated groups from Papua who live in Maluku. The Biak-Noemfoor people who sailed to Halmahera, Tidore and some small islands in the North, are proud to mention their origins and clans. This is related to the political ties between Biak-Noemfoor and the territories under Tidore's power. With that identity, they can be accepted by the locals. Furthermore, the relationship between Tidore and Biak-Noemfoor was united by emotional ties as a result of Gurabesi's marriage (a legend of Biak-Noemfoor) with Boki Taiba, the sister of the Sultan of Tidore (Sultan of Tidore, Ternate, 24/8/2015). Until now, the descendants of the Biak-Numfor who sailed and then settled in Halmahera and other islands around it, can still be found such as the clans of Dimara, Kabarek, Rejal, Sroyen, Rumbial Imnsen, Mofu, Kapitarau, Mayor, Kapisa and so forth. They spread out among others in Tobelo Morotai, Sahu and Seram. Their presence there used to be associated with the shipping of the tribute to the Sultan of Tidore and doing barter trades. Many of their descendants have gone back and work in Papua.



Above: Map showing the extent of the Melanesian region (in green). Flassy in Mansoben et al. (2011: 28)

Language ties and other relationships have made the map of the Melanesian area expand to include Maluku and East Nusa Tenggara.. According to Flassy, the Melanesian people include people in Timor, East Nusa Tenggara and Maluku.

In personal communication between the writer and Don Flassy, he stated that the Melanesians also include the Bima and Moro in the Philippines. In addition, it is also known that there are Melanesians in Siberia. Furthermore, in communication with Enos Rumansara, he said that Sulawesi is a transition area, because the inhabitants there are grains and tubers eaters. Tubers are one of the characteristic foodstuffs of the Melanesians. Therefore it is necessary to do further research on the Melanesian archipelago.

Early Contacts with the Outside World

The first contact between the Indonesian population of Melanesians (Maluku, East Nusa Tenggara, and Papua) with the outside world took place many centuries ago, but the exact time is not known with certainty. The existing written sources are generally Chinese news reports in the 7th century and writings from the kingdom of Sriwijaya. Information about Maluku first appeared during the Tang Dynasty between 618 and 906. The news said that the island of Bali was located on the east of Kalling (identified as Java) and the west side of Ma-li-ku identified as Maluku. While the first written statements about the region of Papua (New Guinea) have been recognized since the eighth century through written historical sources of Sriwijaya kingdom. Sriwijaya's sources said that in the year 724 AD, the messengers of the kingdom of Sriwijaya gave the Chinese Kingdom a number of prizes, including a Seng-ki girl. Seng-ki was interpreted to be the same name as Zangge or Jangge in Javanese language referring to the people of negrito race in the Indonesian archipelago at that time. Therefore, Krom suspected that the Seng-ki girl came from the some of the negrito population in the islands of New Guinea or Papua. In the 13th century, the name of Timor first appeared in the Chinese news written by Chao Ju-Kua. It said that the kingdom of Sriwijaya or Su-chi-tan in Chinese included: Sin-to (Sunda), Ma-li (Bali), Tan jung-wo-lu (Tanjung Pura Kalimantan), Tiwu (East) and the Wa-nu- ku (Maluku)²⁰. The news indicated that the Timor was part of the kingdom of Sriwijaya and had already made contacts with the outside world much earlier. At that time,

Sriwijaya was a trading center linking the west to the east. In Sriwijaya, it was known that the spices were from Maluku brought to and traded in Sriwijaya by the Bacan kingdom, which preceded the kingdoms of Ternate and Tidore. Similarly, there were sandalwood, amber and honey from Timor.

At the end of the 12th century, Sriwijaya began to decline. Arabic, Chinese, Javanese and Malay traders took the opportunity to further widen their trading business to Maluku. Changes in trade routes, which were initially concentrated in Sriwijaya, opened direct access to the places of origin of goods traded, affecting the development of new trade centers in Maluku, Papua and East Nusa Tenggara such as Banda, Gorom, Geser, Hitu, Ternate, Tidore, Atapupu, Kupang, Onin, Sran (Koiwai), Raja Ampat, and Wahai. Trade relations with Papua were eliminated by traders in East Seram, which is geographically located closest to Papua. Gorom and Seram Seas played a vital role in the trading network called *sosolot*, to connect with Raja Ampat with Maluku up on the north west coast of Papua and with the land of Papua namely Onin and Kobiai. *Sosolot* was also applied in East Seram, which was divided into a number of coastal *sosolot* communities, individuals, families or community groups to manage the trade monopoly in the bay or ports. Trade relations between the Seram and Papua were cemented by the marriage between men from Seram and women from Papua. *Memorie van Overgave Onderafdeeling Fakfak, Controleur A. Vesseur* reported that in general the kings of *Onderafdeeling Fakfak* maintained the tradition of marrying women from Seram, Buton or those of mixed blood (Ellen, 2003).

Miguel Roxo de Brito when sailing to Seram in the late 16th century (1581-1582), described that Seram, which he called Serdanha, had a trade network with Timor. The inhabitants of Serdanha built ships that they used to sail all the way to the island that produced sandalwood, Timor. This suggests that traders from Seram played an important role in the network of traditional trade between Maluku-Papua and Maluku- Timor, which connect these three areas into one unified network of traditional trade in the East (Gelpke, 1994).

During the early development of trading ports in the east, in the mid-15th century, traders, mainly Arabian, Javanese, Malay, and Makasarese came to Maluku and NTT not only to trade, but also to spread Islam. They married local women and formed their respective ethnic villages. Tome Pires reported that traders from Java and Malay who embraced Islam, settled on the coast of Banda, but there was no king there and its hinterland was still inhabited by non-Muslims. Not all people in important trade areas embraced Islam. The people of Timor and Sumba, the timber-producing areas, remained non-Muslim (Ricklefs, 2005). Until now, the communities of Arabian, Javanese, Malay, and

Makasar descent, can still be found, especially in centers of trading ports in Maluku, Papua and Timor. Arab clans like Alkatiri, Assegaf, Atamimi, Musaad and several other Arab clans, can be found in Maluku, Papua and Timor.

Islam, which entered Maluku in the 13th century, was brought by Arabian traders who came from the island of Java, named Jafar Shadik (also called Jafar Noah) (Mansoben, 1995). The son of Jafar Shadik named Kaicil Mashur Malamo was the first king of Ternate in the sultanate system and was in power between the years 1257 and 1277. The local kings of Ternate, Tidore, Hitu, Jailolo, Bacan and Iha, converted to Islam and changed their titles to Sultan. Traders from Maluku, especially those from East Seram who had already embraced Islam, played a role in the spread of Islam into Papua. In the sixteenth century, the tribes in Papua and the islands in the northwest parts like Waigeo, Misool, Waigama and Salawati, had submitted to Sultan Bacan, one of the kings in Maluku. Then, Sultan Bacan expanded his grip as far as Onin peninsula (Fakfak) in northwest Irian (Papua) in 1608. Under the influence of Sultan Bacan and the Muslim merchants, the community leaders of the islands converted to Islam, although people who lived in the jungles of Papua still followed animism. But the people of the coastal region of the Bird's Head embraced Islam. The oral history of Islam in the west coast of Papua and Raja Ampat, generally mentions that the entry of Islam into the local area was brought by Arabian preachers from Maluku. In addition, the role of East Seram traders who had embraced Islam helped the development of Islam in the west coast of Papua and Raja Ampat. East Seram had become a trading center as well as a center of Islamic education. According to the information from the inhabitants in Fakfak Fatagar kingdom, the King Fatagar (Mafa) and his brother Ira were sent to Geser by their parents to study Islam. In contrast to Maluku and Papua, in East Nusa Tenggara, the spread of Islam, in addition to the Arab, was also conducted by the people of Makasar (Usmany et al., 2013).

When Arabian, Chinese, Javanese and Malay traders began to come to Maluku to trade, the Papuans also sailed to Maluku, in addition to headhunting and doing barter trade. The Papuans sailed far to the west for the purpose of headhunting (Onim and Sitompul, 2006). In the Biak Noemfoor, voyages to Maluku had been made since the middle of the 15th century as a prestige as well as for educational purposes of the initiation of boys when they became teenagers. The objects taken from the voyage included porcelain dishes and textiles acquired through barter trade or as booty (Kamma, 1947/1948).



People from Biak in the Saireri Gulf. (photo by Fred Hill, 23/8/1944)

The initiation or traditional education is also known in Maluku. Generally, initiation education centers were located in the woods behind the village, like the one in Buria village of West Seram. This education was known by the name of Kakehang education, in which headhunting was one of the tests young boys needed to pass.

In some ethnic groups in Papua, Maluku and East Nusa Tenggara, in doing customary education for boys, there had been a traditional house, for example among the Sentani Papua ethnic group, the house was called Kombouw, while on the Plain Maladum Moi in Papua it was called the Kambik house. In some ethnic groups in Papua, the house of initiation was built around the inhabited area but the distance was a bit far. In some other ethnic groups, the initiation houses were usually built far away from inhabited areas, and some were built in the forest. This was because in both cultures, in Papua, Maluku and NTT, not all the customs, norms and customary rules might be known by all elements of society in the ethnic groups that existed in the three areas above. At the beginning of this study all the traditional knowledge and customs, either taboo or not taboo were taught, but it was prohibited altogether to pass such knowledge to others. The consequence of violating the customs rules was death.

In the Huaulu in Seram Maluku, there is an Imesari ceremony. During the traditional educational process any activity around the training area is prohibited. The practice of the knowledge gained is usually carried out at night. Therefore, usually at night people were forbidden to leave the house, fearing they would be targets of the practice of knowledge obtained. After undergoing the process of education or initiation, they would normally embrace a party or reception ritual accompanied by singing and traditional dances. The initiation education graduates were first driven to the custom house, after that they had customary welcoming party.

In some ethnic groups in Papua, such as ethnic Karon and Meybrat, there is an educational house called the house of Henia mekiar. In the Henia mekiar house, the girls are educated by the older women considered experienced enough in life. Here they are taught about manners in the family, how to take care of the household, how to serve and receive parents-in-law and other in-laws. Besides that, they are taught how to weave *nokeng*, make *lai-lai*, *gata-gata* and some of the work and equipment to be used soon after marriage. In some other ethnic groups, there is no special education for girls. The girls will usually be taught by their mothers and aunts or sisters of the father, or the wives of the brothers from their mothers' side.

After graduating from the initiation school, a child especially a boy is expected to be able to fight in a war. '*Snonsja nggo mun, binsja nggo yun*' meaning 'We kill the men and bring the women', is a song of victory, which is often sung by the Biak each time they manage to attack and bring the women and other prisoners³¹. In the past, often as a result of a war between tribes, women were severely lacking in almost all villages in Biak Noemfoor, so that women became the most valuable items. The attackers would always kill the men and abduct the women and loot their belongings. The women were so important because they could give offspring and could be used as a medium of exchange that was of high value to pay fines.

Besides people from Biak Noemfoor Papua, Papuans from Misol were also known to be very violent. Miguel Roxo de Brito stated that the powerful kingdom of Misol carried out the offensive not only to the environment around Papua, but also attacked Seram Island in Maluku waters located in the southern part of the island of Misol. Once they carried out the attacks, their boats never returned home without the booty, and when he visited the Onin in his voyage to Raja Ampat, MacCluer Bay and Seram in the year 1581-1582, he mentioned that the coastal population of Onin also worked as traders. They traded with Seram People who came to the site to buy *massoi* and traded it with swords and iron goods from others. The inhabitants in the coastal area are of mixed blood as a result of their marriages to people from East Seram (Gelpke, 1994). The main trade back then was not only for masoi skin but also the slave even in 1654, when the Dutch managed to establish contact with the king of Onin, the king could prepare 200-300 slaves every year for the Dutch (Widjojo, 2013). Slaves were well known in the history of the people of Papua, Maluku and NTT, they were used to help their masters and as a dowry or to pay fines. But using the slaves as a commodity was something they had just found out in the 16th century.



Goheba Madopolo Romdidi: (Garuda two-headed). Since 1322, this symbol has been designated as a symbol of the kingdom: Gapi (Ternate), Duko (Tidore), Tuanane (Moti), and iron Kie (Makian).

In Timor, the slaves were generally owned by the king. A person could become a slave for not able to pay a debt or as a result of piracy attacks and abductions. Ch'a Hsing Sheng in 1436, noted that there were 12 ports in Timor with various commodities, including slaves (Parera, 2014). Furthermore, according to Francis, the chiefs of Timor had slaves from the descendants of slaves, from those losing the war and as punishment (Parimarta, 2002: 132). It was also mentioned that the greatest wealth of the chiefs was in the form of slaves. As more and more slaves needed in the trade and the heads or kings were in need of money, this situation encouraged tribal wars. Then, robbery of men was preferred to get money (Parimarta, 2002: 133).

Papuan slaves were originally taken by the people of East Seram to meet the needs of their workforce. But after Tidore conquered parts of Papua in 1500, then as the region was conquered, the local king or authorities had to pay an annual tribute in the form of tortoise shell, birds of paradise, and slaves (Kamma, 1981). The pressure from Tidore made Papuans sail to attack villages to get slaves. They also became pirates for the same reason. Chiefs who brought tribute were rewarded by the Sultan of Tidore by giving them titles such as Suruhan (messengers), Rojau (village head), Gimelaha (Dimara), Sengaji (district head), Mayor (deputy village head) and so on. They were also given cloth, iron tools, beads and pottery. These titles are still attached to their descendants to this day, but not everyone knows the origin, because people are more familiar with their personal name and surname only.

Tidore managed to build its influence in Papua. Tidore's identity was marked by a flag bearing the Guheba birds. It was this flag that distinguished the Tidore's boat from its allies with other boats. Papuans would not attack boats bearing Tidore flag, for fear of the Tidore forces.

At the beginning of the 16th century, European nations began their attempts to find the center of the spices in Maluku. In addition to trade missions, they also brought the evangelical mission of Christianity. Portuguese were the first Europeans to arrive in Timor in 1512, but they only sold and bought sandalwood. In the same year, the Portuguese managed to find Maluku and tried to conquer it. Meanwhile, the Spanish managed to set foot in Papua in 1529. They were followed by Ynigo Ortiz de Retes who in 1545 gave it the name *Papua Nueva Guinea* (Koentjaraningrat, 1994). In 1536, the Portuguese founded a seminary in Ternate. This was a religious school for children of the prominent families (Pattikayhatu and Manuputty, 1998). The Portuguese also married women from Maluku. The Portuguese clans such as de Fretes, Parera, de quelju, and Dias, are still family names



Tolucco Fort. The Fort of the Portuguese in Ternate, built in 1540.

in Maluku. The Portuguese efforts to control Maluku further did not succeed because there were many rebellions, especially by the Sultan of Ternate and Hitu kingdom and they also were engaged in a war against Spain, England and the Netherlands. In 1566, the Portuguese finally strengthened their forces in Timor by building a fort on the island of Solor. From the island of Solor, Dominican pastors engaged in evangelism and managed to convert the population of Flores, Lombok, Alor, Rote and Timor to Christianity. Later, many of those Portuguese married indigenous women. Generally they stayed near the fort. Gradually the area around the fort became crowded, and different communities, pirates of Mestizo

Timor, Portuguese soldiers and sailors, and sandalwood merchants from Macao and Malaka lived and thrived there. Social life was dominated by the travelers from Europe and the Europeans who had married local women. They were known as the Topasses or black Portuguese. Trade commodities bought and sold were sandalwood, beeswax, Timor horse and slaves (Anwar, 2004).

In 1602, the Dutch established the *Vereenigde Oost-Indische Compagnie* (VOC). Subsequently, they started their monopoly on trade in Maluku and extended as far as Timor, Java, Sumatra and other islands, except Papua. The Dutch efforts to cooperate with the kings on the west coast of Papua and the Bird's Head was dogged by trade networks of native *sosolot* merchants monopolized by the merchants of East Seram and the influence of Tidore power and the support of the population of the area for the Sultan of Tidore.

From Maluku, the Dutch invaded and occupied Portuguese forts in Timor. The Dominican priests were forced to flee to Larantuka at the tip of the island of Flores. The Portuguese fled to East Timor and controlled East Timor until 1974. during the period of occupation of Timor from the 17th to the early 18th century, the Dutch in the VOC married many aristocratic women of Timor. From the baptism data, there were many Eurasian children in Timor, whose mothers were not baptized (Hägerdal, 2012). Similarly, what happened in Maluku was that when the father was a European, the children who

were born would bear a European surname. On the other, if the mother was a European, the children would continue to use the native clan name.

During its rule, the VOC made contracts with the rulers of the colonized territory to monopolize trade and weaken the power of the kings and other local authorities. The VOC also made contracts with the sultans they had conquered to provide slaves for the Company in the nutmeg and clove plantations. Thus, the Sultan of Tidore was tied to this agreement with the Dutch and had to submit a number of slaves to the Dutch. The agreement made the Sultan of Tidore press local chiefs harder to provide slaves. Papuans tried in various ways to abduct people from other tribes (Hasselt, 2002). To enhance the effect, every year the Sultan of Tidore sent big boats to the areas considered its colonies. Tidore's expeditions engaged in slave hunting not only to meet their tribute quota to Tidore and the Dutch, but also for financial gain. The price of a slave in 1654 ranged between 25 and 30 real per person (Masinambow, 1984).

In 1689, the VOC banned the purchase of slaves in the western part of the archipelago (Andaya, 1991: 83, 88), at a time when the colony desperately needed slave labor. This caused an escalating demand for slaves in the east and expanded the hunt for slaves as a commodity. Free Burgers and Mardyker obtained licenses to supply slaves for VOC (Andaya, 1991: 83-84). The VOC employed them, because they knew the local trading network (*sosolot*) better. In this trade, slaves from Timor were transported to the west, especially to Jakarta. P. J. Veth in his *Het Eiland Timor* states that Dutch Servants in Batavia were mostly slaves from Timor.

In the hunt for slaves, thousands of free people were enslaved. Trade networks formed between the East and the West of the archipelago were so complex that the slaves traded came from different ethnic groups both native and non-native. On 17 September, 1779, Kobiai alias Maba, a rich man from Geser sailed to Rarakit. There he bought 11 Selayar prisoners from Tanete South Sulawesi who were traded by Papuan pirates from Salawati (Widjojo, 2013). It was even reported that no less than 70 pirate ships from Papua in 1824 after an agreement between the Dutch and Tidore was made, sailed towards the West and arrived in Banyuwangi waters in East Java (Kamma, 1981: 62). R. Z. Leirissa noted the possibility that there were two routes used by traders from East Seram throughout the 17th and the 18th centuries to get to the markets in Sumba, Sumbawa, Lombok and Bali. The first route went past the north coast of the island of Seram, Buru, Buton, turned southwest and went across the Java Sea through Bonerate, Timor or Sumbawa ending up in Bali. The second route (southbound lane) went through the Aru Islands, the Banda

Islands, and the islands of Tanimbar, Wetar and Timor sailing through the Lesser Sunda Islands and ended up in Bali (Leirissa, 1996: 48). These shipping lanes had caused Papuan slaves to be dispersed to various regions as far as Java as written by Van Leur. Since the 10th century, slave hunting in Papua had been known, and in Java and elsewhere, Papuan slaves could be found (Kusumo, 2007: 22).

During their colonial rule, the VOC helped spread Christianity. In 1607, the VOC set up a school in Ambon. Lessons taught were in the form of reading, writing and prayer. A Dutchman was appointed as a teacher. In the process, some of the children of government heads in Ambon were sent to the Dutch to study. After completing their study, they returned to Maluku to be teachers. By the 17th century, the VOC had built 58 schools spread across Ambon and its surrounding areas, Ternate, Makian, Bacan, with 5,271 students (Pattikayhatu, 1993: 16). These students were in Ambon and its surrounding areas. The schools were directly under the supervision of the VOC (Nanulaita, 1966: 15-25).

In 1681, the VOC managed to control Rote in Timor. Rote became the source of supplies for Kupang including the supply of slaves. But the condition changed in the 18th century, as gradually people in Rote began to embrace Christianity. Christianity was able to change people's social status, get freedom from slavery and the support of the VOC. The rulers of Rote then asked the VOC to bring school teachers. In 1765, the population of Rote took over the Malay-language schools founded by the VOC. So, since the mid-18th century, there were many educated people in Timor, especially in Rote (Ricklefs, 2005: 101-102). During the Dutch occupancy, many of them became employees of the Dutch. After the VOC was disbanded, the schools were taken over by the Dutch government.

The advancement of education in Maluku and NTT during the VOC rule or after being taken over by the Dutch government at the end of the 18th century did not occur in Papua. Formal education did not reach the people in Papua. Papua was considered unable to provide economic benefits. But after other European nations began to legalize their territories in Papua, the Dutch began to think of establishing its power in Papua. In 1828, the Dutch built a fort of Du Bus at the foot of Lamenciri Mountain on the southern coast of Papua. Within a few months, the fort was abandoned due to many people becoming ill (Koentjaraningrat, 1994: 47-48).

The building of a Dutch fort in Papua did not change the situation there. The slave trade was still going on. In 1855, two Zending people from Germany arrived on Mansinam Island in Doreh Gulf, Manokwari and began their evangelizing mission. Information from several descendants from Maluku gospel teachers in Papua tell us that the teachers of the gospel

of Maluku had been sent to Papua in the early 19th century but they were killed because they did not know the situation in Papua. Ottow and Geisler learnt from those failures. They then asked for help from the Sultan of Tidore to allow them to spread the gospel in Papua. The Sultan of Tidore with open arms permitted and ordered his 37 *bobatos* to sail and take Ottow and Geisler to Papua. They arrived at Mansinam on March 5, 1855. At the beginning, the evangelists had difficulties, but later the number of converts grew very rapidly, as evidenced by the majority of the population in Papua, especially in the northern part who embraced Protestantism. In 1956, they formed an independent church body in Tanah Papua named The Evangelical Christian Church. During evangelism, both had freed many victims of hostages, kidnapping and slavery. Although the Dutch had improved their supervision of the slave trade, in areas far from the Dutch government, there were still cases of trade in slaves in which Tidore was involved. Hasselt (2002: 83-84) noted that when the slaves were no longer needed in Tidore, they would be traded to Ternate, Ambon, Timor, Manado and other regions. Therefore, to maintain security and order in the territory, the Dutch performed punitive expeditions to the villages considered as the centers of the pirates and started thinking about opening their fort in Papua.

Based on the decree of the Governor General dated February 5, 1898, the Dutch opened administration posts in Papua. The Dutch government divided the residency of Ternate into 8 administrative areas (Afdeelingen), namely:

1. Afdeeling Ternate
2. Afdeeling Bacan
3. Afdeeling North Halmahera
4. Afdeeling South and East Halmahera islands
5. Afdeeling Sula
6. Afdeeling Banggai
7. Afdeeling North Nieuw Guinea (northern part of Dutch New Guinea in the Eastern Cape Goede Hoop (Yamursba) and the surrounding islands.
8. Afdeeling South and West New Guinea (part of Dutch New Guinea and other islands around it, including the islands of King Ampat .

The North New Guinea Afdeeling was based in Manokwari and Afdeeling South and West New Guinea were based in Fakfak. Each was headed by a Residency Assistant.

After the establishment of the Dutch government in Papua, on July 11, 1898, the government granted permission to the Catholic Church to work in Southwest Papua. On

May 22, 1894; Father Cornelis Le Cocq d'Armandville SJ, arrived in Papua, in the Skroe area close to Fakfak. In 10 days, he baptized 73 children. Schooling in civilization was performed at home and taught by the teachers of the gospel. Michael Rumlus was one of the Catholic gospel teachers who arrived in the village in 1938. According to Damiana Rumlus (the daughter of Michael Rumlus) when her father came, the villagers of Hiripau still wore loincloths made of tree bark. Michael Rumlus asked for three bales of red cloth to Tual to be sewn into shirts and pants for the villagers of Hiripau. He began his work of changing the lifestyle of the free people become those who abided by his rules. He built a house big enough to accommodate the girls of Hiripau village. In the house, the girls were taught the Catholic religion, how to cook, how to sew and various other knowledge relating to the function of a woman. Meanwhile, the men in addition to being taught about religion, were also taught how to grow crops and a variety of other knowledge related to duties of a man (Usmany et al., 2013: 81).

The gospel effort undertaken by Zending Protestant and Catholic Mission grew in Papua. Teachers from Maluku, Sangir, Java, Manado, were brought to Papua to help the Zending Mission and the Dutch in developing Papuan human resources. Several years later, the Papuans themselves managed the education and spread the gospel in Papua. But when World War II broke out, civilization and formal schools were temporarily closed, except for schools used by the Japanese for military and political purposes. After World War II ended, the Dutch resumed their power over Papua. Then, in addition to increasing education, the Dutch government also rebuilt their administrative centers in some areas which had not been reached yet.

In addition to sending the teachers of the gospel to Papua, the Dutch government sent colonists to Papua. Rosmaida Sinaga, clearly described how the Dutch colonial government sent the first colonists to *Nederland Nieuw Guinea* (now Papua) 59. The first colonists were dispatched in 1929 and stationed in Manokwari. But this colonization failed due to the inability of the colonists to work, the outbreaks of malaria, the poor soil and because sports activities received more attention than farming activities. According to an informant, the Javanese and other ethnic groups were also brought into Papua to work in the plantations there. In 1936, about 300 Javanese were dispatched to Ransiki (now South Manokwari district) to work in the rubber plantations. When World War II came, almost all of the workers left Papua. Only a few company foremen remained there to safeguard the company's assets. Likewise, the plantations opened by the Japanese in Papua used forced labor from other ethnic groups. However, due to World War II, many of these workers

returned to their respective regions. So, since the beginning of 1900, there were a lot of people from different ethnic groups of Indonesia arriving and working in Papua, but due to World War II, most of them returned to their own regions. During World War II, the allied forces built several runways in Papua and Maluku. Some of those runways were then used by the Indonesian Air Force as military bases. Two runways which were large enough were at Biak and Morotai. From the writer's observation, it appears that almost in every Air Force complex, there were wives who came from Maluku, Papua and East Nusa Tenggara, or alternatively; the husbands were from these three regions.

On August 17, 1945, Indonesia proclaimed its independence. Five years later, on April 24, 1950, DR. Soumokil proclaimed the founding of the Republic of South Maluku (RMS). This movement was crushed, but until now they continue their struggle abroad, but with different concepts of struggle. Welfare of the people of Maluku should take precedence over the use of political violence.

In addition to the problems of insurgency in the country, Indonesia still had to face the problem of West Irian (Papua). Until 1962, the Dutch still controlled Papua. They handed it over to UNTEA May 1, 1963, and then UNTEA handed it to Indonesia. Although the Dutch ruled over Papua for only 64 years, some of the impacts of their occupation can still be seen today. The impacts of the Dutch occupation in Papua are generally similar to those seen in Maluku and East Nusa Tenggara. These include, for example, the creation of social and political changes in the structure of the society by upholding modern governance. The Dutch government also moved communities living in scattered villages to a new location, which was more centrally located so that it was easier to control the activities of the community in addition to building health centers, educational facilities, transportation and development of evangelism (Sinaga, 2013: 277-279). At that time, the local authorities were turned into working partners, especially in terms of tax collection, the maintenance of security and order in the region, but their position was under the Dutch government authorities stationed in the area. Since the enforcement of the Dutch government in Papua, from 1898 to 1962, they have formed six *afdeelingen*, 22 *onderafdeelingen* and 3 exploratory areas. Unfortunately, they did not make any significant development. In 1962, the Dutch was involved in a confrontation with Indonesia on the issue of West Irian.

From Trikora to the Independence Period

The Indonesian government seemed to be very confident that they would be able to get back West Irian (Papua) from the Dutch. Thus, since 1962 the Indonesian government had

begun sending workers from various professions to Papua, both military and civilians. Upton (2009), for example, noted that at the beginning of the transitional government under UNTEA, the Indonesian government sent about 1,500 troops to Papua, the number that almost equaled that of UN troops in Papua. In addition, as many as 1,200 people who worked for UNTEA in 1963 were Indonesian people, 200 Dutch people, and 80 people from various other countries. The domination of Indonesia was supported by Pinhabitant Sukarno, who in September 1963 issued a ban for any foreigners to visit Papua except for missionary purposes.

In that period, the relationship between the people of Papua and Maluku could be seen from the decision to make Maluku as the main headquarters of Trikora Forces. From some points of operating bases in Maluku, Indonesia sent its troops to Papua to seize Papua from the Dutch. Through an agreement between Indonesia, the Dutch, and the United Nations, it was agreed that Papua would be under Indonesian control or in transition until the referendum (Pepera) in 1969. The Dutch prepared to leave Papua, Papuan KNIL soldiers were offered two options, namely to join Indonesia or to go back to the Dutch. Those who chose to stay were then sent to Java to get Indonesian style military training. Through this educational process, there was intermarriage between Papuan soldiers and Javanese women. After the training, some Papuan soldiers were sent back to Papua, and some remained in Java or sent to other areas. In this transitional period the Indonesian government began to restore security by sending its military to Papua. In addition, it also conducted a limited construction work. Administrative personnel, and nurses and teachers were also sent to Papua. Some of those sent to Papua married indigenous peoples where they worked. These mixed-race marriages produced a number of children. After the referendum, in which Papua joined the Republic of Indonesia, the government started its development program in various fields, such as education, health, infrastructure and economy (personal communication Yapsenang, 2015).

In 1964, the government began to send the first homesteaders to Papua. They were called the pioneers of multipurpose development or the pioneers of the development of West Irian (TPPJG/PPIB). The homesteaders were placed among others in Manokwari as many as 12 heads of family/30 people, Kumbe (Merauke District) 27 heads of family and in Dosai (Jayapura District) 9 heads of family (Parera, 2014: 6). Indonesian government's efforts to build Papua before the referendum were challenged by community groups who disagreed with the Dutch and Indonesia on the status of Papua. The submission of Papua to Indonesia was considered a submission from one colonizer to another. Their ideals were for independence. The group

then set up a movement in 1965 and is known as the Free Papua Movement (OPM). This movement continues to see cession from Indonesia as its main goal.

In 1969, a referendum was held and West New Guinea became part of the Republic of Indonesia. With the inclusion of Papua into the Republic of Indonesia since 1970, the Indonesian government began a development program in Papua. In 1971, a census of the entire population of Papua was taken. The result showed that the population of Papua as a whole (natives and immigrants) was 923,000 people (Koentjaraningrat, 1994: 98). The population was boosted with the influx of migrants, jobseekers and construction workers.

From 1972 to 1973, the government began implementing its transmigration program to Papua. 80 families (367 people) of migrants were placed in Girimulyo Nabire district. Furthermore, from 1974 to 1975, 200 families (713 people) were resettled in different locations in Nabire. Until 1999, for Nabire district alone, the government had resettled 6,178 families or 22,713 people (Parera, 2014: 6-7). Development was carried out using a model of the Five-Year Development. The first five years of development up to sixth focused more on the Development in the field of economics and other fields, one of which was the development of agriculture.

The transmigration program was conducted support agricultural development and the population of Java, Bali and East Nusa Tenggara was sent to various regions in the program including Maluku and Papua. The purpose of sending these homesteaders to Maluku and to Papua in particular, was the transfer of knowledge in the field of agriculture, especially paddy rice farming. However, it appears that the transmigration program, was carried out without proper planning and preparation. It can be seen from many landholdings abandoned by the homesteaders and some had sold the land to employees. These conditions are commonly found in all parts of Papua. Perhaps this was due to the lack of understanding of the prospective migrants about the local culture of people in the areas where they were to be resettled. In addition, there was still a lack of information about the geography, the natural conditions of the environment of transmigration destination, so most of the migrants stayed for only about 3 to 6 months. After there was no assistance from their government, they sold the land and returned to their home areas. Migrants who survived and stayed did not establish good communication with the locals. This was going on since the early resettlement of transmigration until the 1980s. At this time the main focus of transmigration program is rice paddy farming, which did not suit the culture of the Papuans, making it very difficult for them to accept, but there was also suspicion among the Papuans themselves about the presence of migrants, so local inhabitants kept away from the migrants.

Around the end of the 1980s and early 1990s, some change started to take place when the people of Papua in certain ethnic groups began to establish some contact with the migrants. This was caused by the fact that the farming activities no longer relied only on paddy sector, but also on the planting of crops, vegetable, and some other commodities such as cocoa and coffee, which some ethnic Papuans could accept. A transfer of knowledge from the migrants to the farmers, especially to women began to happen, regarding things like how to plant crops, how to grow vegetables and other crops, so that now there are some people of Papua who know about horticulture. However, this did not spread widely to Papuans in general, because the settlements of the local population and the indigenous population still were separate. So the question arises about what the purpose of the transmigration program was and who was the main beneficiary. This had led to resistance in some areas that would be designated as the target of transmigration program in Papua. The rejection was also caused by the exclusivity of the homesteaders and migrants who were not very open to the native people. The two communities lived separately and rarely interacted or socialized.

The number of migrants increased with the implementation of local transmigration program from 1999 to 2003, when 405 families (1,849 people) of the Papuans were resettled in transmigration sites that have been prepared by the Nabire government. The participants came from various ethnic groups including Javanese, Sundanese, NTB, NTT and Papuans (Parera, 2014: 6-10). In some other transmigration locations, there were also participants originating from Sumatra and South Sulawesi. It is estimated that up to 2014, the total population of Papua and West Papua (natives and immigrants), totaled 3,919,340 million people (Badan Pusat Statistik, 2014a, b).

In Maluku, the transmigration program had been going on since the 1950s, and continued in the 1960s. Migrants were placed in several large islands in Maluku. In the process, many children of these migrants became civil servants, self-employed and other workers. In Central Maluku, the migrants were placed in the villages of Waimital, Waihatu, and Waipirit West Seram. These areas including North Seram and Buru later developed into the granary for Maluku.

In the context of food security and food self-sufficiency, since 1994, 1,150 hectares of paddy fields in West Ceram and North Seram have been established. Rice has shifted the role of *papeda* and tubers as the staple food of Maluku. It has also happened in Papua. Sago has become an expensive item, because not many people tap sago for trading anymore. Most people in Maluku began to change profession to become home industry traders, civil servants and other kinds of work.

The transmigration program was also conducted in the area of East Nusa Tenggara, but it was only implemented in 2009, located in Lailara District East Sumba. So far, people of East Nusa Tenggara had been included as the migrants sent out of East Nusa Tenggara. The Participants of the transmigration to Lailara were NTT's own population (Local Transmigration) resettling as many as 100 families with the number of 386 people. In 2012, 100 families with 458 people⁶⁹ were again resettled to Lailara. Data from BPS show that there has been an increase in the population of the following provinces: Papua, West Papua, Maluku, North Maluku and East Nusa Tenggara, 1971, 1980, 1990, 2000 and. (Table 1)

Table 1. The population of Papua, West Papua, Maluku, North Maluku and NTT in 1971, 1980, 1990, 2000 and 2010

No	Province	1971	1980	1990	2000	2010
1	Papua	923,440	1,173,875	1,648,708	2,220,934	2,833,381
2	West Papua	-	-	-	-	760,422
3	Maluku	1,089,565	1,411,006	1,857,790	1,205,539	1,533,506
4	North Maluku	-	-	-	785,059	1,038,087
5	NTT	2,295,287	2,737,166	3,268,644	3,952,279	4,683,827

Source: http://www.bps.go.id/tab_sub/view.php

The increase in population occurred from 1990 to 2010 in Papua and East Nusa Tenggara, but in Maluku, there was a decrease in its population in 2000 due to unrest and regional expansion. The 2010 census showed an increase in population of the provinces of Maluku and North Maluku. The population growth in East Nusa Tenggara was not accompanied with an increase in employment for the population of productive age. As a result, many people of East Nusa Tenggara sought employment in other areas or as migrant workers in neighboring countries. In big cities such as Surabaya, Jakarta, and Yogyakarta, there are usually communities of people from East Nusa Tenggara, which is growing every year (<http://www.bnp2tki.go.id/read/10158/Kepala-BNP2TKI>).

In 1999, there were racial riots in Maluku. This caused an exodus of Malukan and other ethnic groups to leave Maluku. After Maluku was considered conducive to live in again, not all the refugees went back. Some chose to stay where they were. Data from Table 1 shows that the population of Maluku and North Maluku from 2000 to 2010 increased by only about 200 to 300 hundred people. Meanwhile, in Papua and East Nusa Tenggara, it

Below: Pottery bowl containing papeda. Papeda is the staple food of the Papuans in coastal area of Papua, and for the people in Maluku and some areas of and Sulawesi.



increased by 600 to 700 inhabitants. But after the racial riots, there were many changes in people's livelihood. Work that once once only done by migrants such as rickshaw puller was now done by people of Maluku. In addition, home industries in the villages and new stalls belonging to the villagers popped up.

In line with the development of the industrial sector, services and other economic aspects, many immigrants from various regions in Indonesia came to Papua, Maluku and East Nusa Tenggara. For Papuans, the presence of these migrants, on one hand has been beneficial as it can accelerate development, but on the other hand, it can have an adverse effect, when there is more absorption of labor from outside Papua, in the fields of work in Papua, while Papuans themselves lack the opportunity. This is caused by a shortfall in the skills of people of Papua, especially in specialized fields. Additionally, culturally Papuans do not find it easy to accept such changes in their way of life.

In 1998, there was a political change in Indonesia. Indonesia entered its reform period, which has opened a new chapter in politics. Everyone can participate and engage in practical politics, and if they are successful, they can occupy legislative seats in the national parliament and the local parliament as happened in Maluku, Papua and NTT. This means that a lot of traditional leaders in the area will ultimately be marginalized if they cannot adapt to political change.

Since then, many regions in Indonesia, including in Maluku, Papua and NTT have been experiencing growth. Redefining district boundaries is intended to shorten the reins of government and to make development more equally distributed. Many political figures have emerged and established their credentials to be elected as the heads of the region as well as members of the legislature. Therefore during the time of the presidential or local elections, they would garner the support from the community, creating support groups that sometimes led to fights between groups of different candidates.

In Act No. 6 of 2001, Papua was changed into a special autonomous region. The development of Papua in various sectors of development which is further supported by the presence of special autonomy and regional expansion, have become a magnet for newcomers. Newcomers in Papua are looking for a chance to succeed in various sectors such as public administration personnel, police, soldiers and civil servants (teachers and medical personnel), in which after regional expansion, the human resources are still lacking. These people mostly are from Makasar, Bugis, Maluku, Manado, Batak, Toraja, Java, and East Nusa Tenggara. Meanwhile in Kupang, development has been going on very rapidly for only the last 10 years. In the city of Kupang, shophouses and hotels as well as

other services are popping up. There is an improvement in the standard of living and an increase in local employment, compared with 10 years earlier.

Some Changes in Local Culture

Before making contact with outsiders, the population of Papua, Maluku and East Nusa Tenggara had utilized local materials as a dowry, for example, bracelets, earrings and necklaces made of *bia* (shell) skin, cloth woven from bark, boats and oars, and even human heads from head-hunting. After the trade contacts between the people of Papua, the people of Maluku and East Nusa Tenggara, Chinese, Arabs, Portuguese, Dutch, Spanish and English, some local materials in Maluku and East Nusa Tenggara such as Timor fabrics were used by several ethnic groups in Papua as dowry, as well as items that were considered unique such as beverage bottles, antique plates, jars, cannon, ivory, and gold. In Biak and its surroundings, dowry materials were previously acquired, not only as a result of trade, but also a result of plunder and headhunting.

In addition to trading in dowry gifts, contact between the people of Papua, Maluku and East Nusa Tenggara, there was the adoption of some musical instruments and dances from one culture to another. For example in the Onin in Fakfak, musical instruments used are the ukulele and the gong, which is a traditional musical instrument of Maluku, and dances such as the *cakalele mbreh* dance in Onin area, which also exists in Maluku. Besides that, there is a musical instrument that is almost the same such as Tifa in Maluku and Papua. Tifa is one of the most important musical instruments in the culture of the people of Maluku and Papua, as well as flutes made of *Bia* bark. Another musical instrument is Pikon. This instrument is found in East Nusa Tenggara and Papua, but it has become very scarce now. With dance, there are similarities in the dances of Pangkur Sagu (Papua) and the *tokok sago* dance (Maluku). According to DR. Christ Fautngil a language expert from Cendrawasih University in Papua, the relationship of the people of Papua with people in Maluku, Nusa Tenggara can also be seen from the bow and arrow dance.

Changes in education have taken place since the presence of Portuguese and Dutch in the 16th century in Maluku and East Nusa Tenggara. In Papua, change began to happen only in the 19th century when the Dutch began their reign in 1898. The Dutch prohibited traditional initiation schools and replaced them with civilization and formal schools. In line with the development of human resources, in subsequent years, the people of Maluku, East Nusa Tenggara and Papua themselves became teachers for VOC and the Dutch schools in the region. This led to improvements in human resources in all three areas. Some

became the military personnel, government administrative personnel, nurses, teachers and evangelists. They were able to supply the manpower needed by the Dutch in building their infrastructure. In contrast to Maluku and East Nusa Tenggara, construction of houses in Papua was mostly done by migrants brought by the Dutch from other regions. The knowledge gained was spirituality and formal education, carpentry, agriculture, medical, military education, including the use of arms for the Dutch police (KNIL).

In the belief system, the spread of Christianity led the people of Maluku, East Nusa Tenggara and Papua, who still mostly believed in traditional religions (some groups embraced Islam), to change their beliefs and embrace Christianity (Protestant and Catholic). In the Catholic religion, traditional religious ritual ordinances were adopted in the celebration of the Catholic religion (syncretism), while in the Protestant religion, all the rituals, ceremonies and traditions were considered taboo and contrary to the teachings of Christianity so that they were banned altogether. As a result, many of the traditions and the culture of the People of Maluku, Papua, and East Nusa Tenggara have become endangered. Nevertheless, the presence of these newly introduced religions has not completely eliminated the beliefs of the population of these three areas. Until now, customary ritual practices, though prohibited, are still practiced by some ethnic groups from these three areas. A tradition of Maluku, East Nusa Tenggara and Papua, which is the same but has experienced a shift, except in some ethnic groups in Seram, is the tradition that is associated with birth and menstruation. A cottage separate from the house will be built for women in childbirth and for girls who menstruate. They will stay there until they are considered clean. This tradition is still there today, especially among the people of Nuaulu in Seram. With some other ethnic groups, after the arrival of Islam and Christianity, a mother who is to give birth and girls who menstruate, have been allowed to remain in the house.

In the Papuans, a leader, like Ondofolo, before the entry of Christianity to Sentani, had a very high legitimacy, his every word was obeyed. Ondofolo could not just talk and have a chat with people directly. Every decision he made had to be delivered to the people through a spokesman called Abu afa. This was due to the assumption that Ondofolo was the representative of the God of the sun, so his speech contained both a blessing and a curse. However, with the acceptance of Christianity by Ondofolo, he gave up some of his legitimacy or authority to the evangelists. Consequently, his legitimacy diminished, and his pronouncements were no longer considered to have influence over the lives of the people.



The bow and arrow dance

In agriculture people were taught knowledge of small-scale agriculture and subsistence in nature, to large-scale farming, in plantations of products such as nutmeg, cloves, coffee, potatoes, tobacco, and chocolate, which were demanded by the Europeans. In the area of East Nusa Tenggara, cattle ranches and horses were introduced, so now East Nusa Tenggara is a center for cattle, especially Bali cows. In Papua in about 1920, the Dutch Government sent homesteaders from Java to the Merauke region to increase rice production and food availability in the area. In addition, the government has built educational facilities, conducted courses in agriculture, sago processing business, exploitation and processing of copra and co-operatives and built an airport (Sinaga, 2013: 196-197).

From 1954 to 1956, the Dutch started to promote the development in Papua. The development undertaken by the Dutch were building oil mining, construction of a seaport in Sorong, Manokwari and Merauke and building garages on Marokwari, Merauke, Hollandia and Sorong for repairing vehicles. The development had resulted in a change in the ability of some Papuans, but due to limited manpower, the Dutch still brought some labor from outside Papua (Sinaga, 2013: 196-197).

In a political system, after the entry of modern religions, there was a change in the legitimacy of a leader. Before the arrival of modern religions, a leader was regarded as the embodiment or messenger of god, so he was considered sacred, where every utterance that came out of his mouth could contain positive and negative things. Given this view, everyone in the community was very careful to be respectful of him. The best results of any operations should be dedicated to him, because it was believed that a leader would give the blessing so that the crops would be still plentiful and good, but after the arrival of modern religions, the legitimacy of these leaders was greatly reduced. The sacred values as the leader who became the messenger god, were handed over to the missionary or evangelist or pastor. Leaders were no longer feared or respected by society. Rules and restrictions imposed by the evangelists considered indigenous education to be pagan and incompatible with Christian teaching. In indigenous education there are rituals with magic elements, accompanied by magical practices like *hobatan-hobatan*. Although unintended, the ban resulted in the weakening of the traditional leadership system in Maluku, Papua and NTT.

After the arrival of the Europeans, the status of local political leaders began to shift. Local leader was the highest leader in the customs of his tribe, but structurally, they were under the Dutch government officials. That position led to the position of a local leader to be replaced by the Dutch, when it was felt that these leaders had not sided with the Dutch.

Thus any measures taken by leaders were not fully implemented by the people and might have even been met with resistance by the people if the policy was considered unjust or simply benefitting the ruling party and the Dutch.

In the areas that served as the Capital or the Dutch central government both district and department, customary educational activities were generally prohibited. Cultural activities that were considered capable of leading to chaos were banned altogether by the Dutch Government. These cultural activities were a means of strengthening the legality and the status of traditional leaders, for example in the region of Sorong, Teminabuan and Ayamaru, where cultural exchange and borrowing returning eastern fabrics was prohibited. Indigenous education was a means of developing the character and personality of children and as a means of developing leadership, because to become a traditional leader, in addition to having skills, someone also had to have a good knowledge about their culture (Yapsenang, 2015).

In the culture of the people of Papua, Maluku and NTT, not everything could be discussed or disclosed to a child. There were things that could be delivered only through traditional education. Children who had had a traditional education were the selected ones. A selected child had more capability than others from the view of traditional leaders. The banning of traditional education had an impact on the weakening of the role and functions that could be played by a future leader and a weakening of the legitimacy of a leader. The result was a change in the existing social structure in society.

After Papua became part of Indonesia, the weakening in the political system of the Papuans continued further and the government and the security forces banned any traditional education that still existed in indigenous communities in Papua. This prohibition was because it was assumed that indigenous education would create cadres of people who would oppose the Republic of Indonesia. Furthermore, the weakening of the traditional governance system in Papua, Maluku, NTT, and in other Indonesian regions continued with the issuance of Law No. 5 of 1974 on the formal government system in Indonesia up to the village levels. The Act regulates the uniformity of a term used for the entire countryside or villages in Indonesia into village (*desa*). The villages which were scattered with small populations were merged into larger villages (*desa*). Under this system, villages are led by a village head along with its apparatus as well as LKMD. This led to having two leaders at village level in Papua, a traditional leader and a village head as formal government leader, whereas traditionally a leader had a very large role in the social and cultural life, such as regulating the land (Yapsenang, 2015).

This condition was not only experienced by the people of Papua, but also by people in Maluku and East Nusa Tenggara, and other regions in Indonesia. Only in Maluku, the status, role, and legitimacy of a Bapa Raja (literally Father King) was still very strong. There was good communication between the village head and the Bapa Raja. In addition, generally a village head position in Maluku was held by a Bapa Raja. If an ordinary person became the village head, the development would involve the Bapa Raja from the planning stage to implementation.

After special autonomy in Papua had been enacted and running for more than 14 years, it brought about changes in social and cultural life of the Papuans. In terms of politics, many young people who had more capabilities than the others in the community emerged, to elevate their status. Many young Papuan people occupy important positions in both the government and the legislature. This has caused a shift in leadership causing people to have more respect for them than for their traditional leaders.

In addition to the traditional political system in Papua, Maluku and NTT, cultural change has had a further impact on daily living habits. The presence of Europeans in the East Nusa Tenggara, Maluku and Papua, had brought a change in the habit of eating while sitting on the floor to eating at the dinner table with the use of modern tableware. People have learned about the culture of foreign dance such as Polonaise dance, and adopted it into local culture and the dance in Maluku. In the area of East Nusa Tenggara, the people adopted Portuguese traditional dress and dance styles. Also, there are words borrowed from Dutch into local languages for example *oma* and *opa*, referring to grandparents and *nyonya* and *tuan* the words used to refer officials or teachers and pastors.

Changes in the language have been striking. When the Dutch came to Maluku, Papua and East Nusa Tenggara, the Malay language was the language of daily life, and was used in various aspects of life, from work, sharing the gospel, education, trade and social life. Gradually, the Malay language (now the language used is Indonesian) became the everyday language used by people to communicate and begin to shift the habit of using local languages to communicate in the family.

The changes above occurred unintentionally, and they will continue to be experienced by the people of Papua. There is even a view that the next 20 years the Papuans with dark skin and curly hair will transform into Papuans with white or brown skin and curly hair. In art, there will be new musical instruments and new dance creations.

No culture continues as it was without change or influence from outside sources. Culture is not static but dynamic. The changes that have occurred in Papua can be said to

be late when compared to the Maluku and NTT where changes were the result of trade contacts and the arrival of outsiders for centuries before they arrived in Papua. Over this time period, the physical appearance of the people from Maluku and NTT has become different from the Papuans, and also with culture they have undergone changes that could be quite big, but if we examine more deeply, it turns out that the physical Anthropology of the people of Maluku and NTT is the same as people of Papua, as well as with the initial culture or the basic culture of the three groups of people. This paper only slightly looks into the similarities and the relationship between the people of Papua, Maluku, and the people of East Nusa Tenggara.

Contacts with Other Cultures

Contacts between the people of Maluku and Papua have included mixed marriages. The assimilation process generally occurred in the area of Raja Ampat and Onin and Biak due to trade, headhunting and piracy. Frequently in the past, if they could not sell the men and women victims who had been captured, they would take them home as slaves, but the women would be taken as wives by the brigands. This had led, in Papua, to the existence of a mixed population of the descendants of Maluku, particularly in Raja Ampat, Onin and Biak. Similarly, in Maluku, from hundreds of years ago there have been people who are descendants of the Papuans, both from Biak, Raja Ampat and Onin.

From some historical evidence and folklore from the area of Misol, it can be inferred that in the past, Misol was a haven for Maluku people who wanted to trade in Tanah Besar. Some of the names of places there come from Seram Language like Magey which means "how". In the meantime, Magey in Misol dialect means light. The remains of the history of seafaring people of Seram in Misol can still be found in Kali Gam in the form of an upside down boat belonging to Seram people.

Mixed marriages between people of Maluku and Papua and East Nusa Tenggara were also often the result of natural conditions, so traders had to wait for a change of wind to return to their respective regions, which could be quite long. Therefore, they would marry girls from the area to take care of all the necessities of life.

With the two things above, now in the Onin, and Raja Ampat and Biak, there are people of Maluku descendants; most of them have used local family names. The case above has also happened to the merchants of the East Nusa Tenggara who made trade contacts with the Papuans. In Misol, besides the people of Maluku descent, there are also those descended from the people of East Nusa Tenggara. Accordingly, they no longer

consider themselves immigrants or people of Maluku or East Nusa Tenggara, but identify themselves as Papuans which is the land of their birth.

In the 16th century after the arrival of Europeans in Maluku and East Nusa Tenggara, assimilation occurred as a result of intermarriage between Europeans and people of Maluku and East Nusa Tenggara. People married due to love, but also because of their desire to gain influence among the indigenous people or the people of Maluku and NTT. A valid marriage in the church and state usually happened between Europeans and women or men of indigenous noble status. Because these marriages were legally registered, the offspring of these marriages usually got special attention and treatment socially and economically. For example, they got a better education. Besides marrying local people of high status, the Europeans had secret relationships with the common indigenous people or slaves. These marriages usually were not legally recognized and they were not registered. Many East Nusa Tenggara residents who are the offspring of these mixed marriage to the Portuguese and the Dutch have foreign faces.

In Papua, it was a little different. Mixed marriage occurred commonly among the teachers of the gospel from Maluku. When the Zending Mission began to spread the gospel in Papua, to swell the numbers of Catholics and Protestants, the Dutch sent people from Key in Maluku and from Ambon to Papua. In addition to helping build their flock, they opened up educational facilities. Some of these teachers got married to the Papuans. Some were also married to Key people themselves. These mixed marriages in Papua have resulted in descendents with lighter skins and curly hair.

In the early 20th century, the Dutch government sent migrants from Java to Merauke. Some of these migrants survived and some moved back. The migrants who survived and lived in Merauke, have colored the diversity of the population in Merauke. The descendants of the migrants are known as Jamer (from Java-Merauke).

Because of the infrastructure development and the exploitation of natural resources such as oil mining in Sorong, the Dutch government brought more workers into the area. In addition to outside labor, there were native Papuan workers as well. The presence of these migrants to Papua, led to the transfer of knowledge to some of the Papuans, who worked in the same field. In addition, there were also mixed marriages between migrant workers and the Papuans, especially between outsider men and indigenous women. After Papua became part of Indonesia, the members of the colonial army (KNIL) who joined the Indonesian military got married to people from major ethnic groups such as Javanese, and Sundanese. The offspring of these mixed marriages had changes in the physical biological

appearance that made them different to Papuans. There are many Papuans with faces that look like people from Java, who are called Mujair Papua (Irian with Javanese Face). Their face and skin color is the same as people from Maluku or Timor.

The history of ethnic groups in the three regions in Indonesia with Melanesian culture (Papua, Maluku and East Nusa Tenggara), is not static, but dynamic as a result of their contacts with other tribes and foreign nations, which have led to changes in various aspects of community life that we can see today. The Melanesians can be found distributed and spread all over Indonesia, particularly in provincial cities and counties. This distribution and growth was due to a variety of forces such as human trafficking, employment, marriage, education, and maritime trade. Physically, many Melanesians generation now have curly, wavy, straight, white, brown, and black hair but their identities remain known from the family or clan attached to their names or origins.

We discuss here, the thinking concept of Melanesian people about the "Land" based on interviews with Don Flassy, an expert on the art and culture of Papua and the member of Papua MRP on July 24, 2015. According to Don Flassy, there has been a misinterpretation in which there is a view in Papua that the land belongs to customary rights. The term communal rights, with regard to the division between owners (individuals) of land, labor tenants and workers, whereas in Melanesia this designation does not fit; the term customary land is more suitable, because the land belongs to the whole community together or keret. The land cannot be cultivated arbitrarily or at will because it is tied to the belief system. The land is likened to the human body as well as Mama or Ina which when used properly will always give good results for human beings.

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CHAPTER 7

Edward L. Poelinggomang

The History of Maritime Networks and Cross-Cultural Contexts in Indonesia

Maritime Trade under Sriwijaya

Sriwijaya is one of the oldest kingdoms in Indonesia. It was very ambitious in overseeing maritime trade between China and India and the western area of the archipelago. This kingdom was successful in supervising maritime trade activities in the Strait of Malacca and the Sunda Strait. The holders of political control of Sriwijaya had a special interest in the world of maritime trade to build its economy and politics (Hall, 1985: 100).

To build their strength and power, the holders of political control of the Sriwijaya Kingdom took five strategic steps (Hamid, 2013: 53-56). First, they diminished the influence and power of other kingdoms along the coast of Sumatra, the Malay Peninsula, and Java, which were involved in maritime trade. The policy was implemented with a view to make Sriwijaya the only commercial transit port for the commodity traded in that area.

Second, they supervised the sailing lanes and maritime trade to and from the archipelago, China, and India. There were two main gates under their control, namely: (1) The Malacca Strait, which was the path of commercial sailing from China to India and vice versa, and (2) the Sunda Strait which connected Sumatra and Java, and was the gateway of maritime trade activities to and from the west coast of Sumatra and the various regions of the archipelago and to China. By controlling these two main lines, the ruler of the kingdom could extract huge profits through import and export tax policy for the kingdom's prosperity.

The third strategic step was to establish commercial and political relations with the countries that had been conquered to build a strong coordination of authority under its hegemony. Sriwijaya relied not only on military power, but also on networks of political relations, complex family relations, and maritime trade to strengthen and maintain the unity of the national territory (Munoz, 2006). In political relations, the rulers of the kingdoms of fiefs remained economically autonomous. Further, the policy on political marriage had created family ties, politics, and religious bonds between the kingdom of Sriwijaya and its vassal kingdoms.

The fourth strategic step was to establish trade and diplomatic relations with China. In the maritime trade network between Asia and the Mediterranean Sea, the Chinese merchants played an important role. To become part of this, the Sriwijaya ruler sent emissaries to China, both in relation to trade and for political purposes. Dick-Read (2005) revealed that after the Chinese rulers understood the power of the Sriwijaya Kingdom, they rewarded "preferential trade status" on the ruler of the kingdom. Since then, Sriwijaya was respected by both the Indian market as well as markets in China, to the extent that other merchants strived to get a chance to trade on behalf of the Sriwijaya Kingdom.

The last step was to strengthen supervision over the territory in the sea making use of strong and experienced human resources at sea, either as nomads or pirates, through mutual cooperation. The king rewarded them from the tax levied on ships transiting and conducting trade activities.

Importantly, the authorities of Sriwijaya developed a network of family connections with vassal kingdoms, especially in the area of Sumatra and the Malay Peninsula. The family ties forged had helped to strengthen family relationships and unite different groups into a strong alliance. But eventually, it came under attack in 1025. The event weakened Sriwijaya and paved the way for Airlangga (1019-1028) from East Java to take back the treasures taken from his father, Dharmavansa, in 1006. According to Haal (1972), in 1030 Airlangga married the daughter of SangramaVijayopungavarman. From then until 1064 nothing was heard about the kingdom of Sriwijaya.

When the ruler of the kingdom of Sriwijaya no longer exerted influence in overseeing the activities of maritime trade in the western part of the archipelago, a new ruler emerged who had the bold idea of a commercial sailing network linking all the commercial ports in the archipelago. This pattern of activities established a maritime trade zone in the archipelago known as the "maritime trade zone of the Java Sea" (Haal, 1972: 76).

Maritime trade during the Majapahit

The Majapahit Kingdom had widespread influence on the many other kingdoms, in eastern Indonesia, Sulawesi, Kalimantan, the Malay Peninsula and Sumatra. This type of influence led to a claim that Majapahit had built a kingdom on the territory called Indonesia at that time with the term Nusantara or archipelago. It was clear that the Majapahit kingdom was

an agricultural country and also a trading nation. Trade relations had created a tangle of commercial relations between the Kingdom of Majapahit with other kingdoms in Indonesia (Ricklefs, 2010: 35). The kingdom's position was also described as the holder of hegemony in the world of maritime trade on Maritime Trade Zone of Java Sea (Haal, 1972: 99).

The *Nagarakretagama* or *Nagarakrtagama*, also known as *Desawarnana*, is a eulogy written in Old Javanese by the poet Mpu Prapanca in 1365 (1287 Saka year) praising the recently deceased Hayam Wuruk, a Javanese king of the Majapahit Empire. The work has also been referred to as "Suarakraton yang Di-Pertuannya". Mpu Prapanca was a Majapahit poet who had sailed with the commercial sailing fleet of Majapahit Kingdom. The poem contains detailed descriptions of the Majapahit Empire at the height of its power with its temples, palaces and ceremonial observances.

The text mentions the names of ports visited by the royal merchant fleet. In certain places, the Majapahit placed representatives as ambassadors in the kingdoms who accepted their presence, named according to the place of the departing port of the merchant fleet, namely Gersik. That name was applied to several ports in the west coast of Sulawesi as Garasi (Gersik), exactly where a number of traders from the Majapahit settled. Except the region awarded by Kedatuan Luwu as dowry on the marriage of his son, Ana' Kaji, with a daughter of Majapahit kingdom known as Tappacina, the place was called Manjapai. This fact shows that commercial relationship was established with the kingdoms on commercial sailing lanes of Java's royal fleet.

The kingdom's commercial sea lanes followed the monsoon conditions in the Indonesian archipelago. Commercial sailing activity started with the arrival of the northwest monsoon winds, beginning in September, but entering the Majapahit's maritime territory in October. At that time, the merchant fleet set sail to the east to the Spice Islands. The mainstay commodity was rice which was collected from the countryside and transported to the central government through Brantas River.

The sea voyage to the Spice Islands passed the islands of Bali, Lombok, Sumbawa, and the territory of East Nusa Tenggara, Flores, Solor, Alor, and Timor. Along the way, they purchased locally woven fabric from Timor, Flores, Rote, Sabu and Alor, which could fetch a good price in Papua. Woven fabric from East Nusa Tenggara was used as marriage dowry. There, they bought sandalwood to take on the return journey that would be sold in Malacca.

When the southeast monsoon winds blew in June, the merchant fleet set their course for the spice-producing areas, Amboina, Banda, Ternate, Tidore, Halmahera and Papua.

The areas in Papua visited by the merchant fleet are mentioned in the *Negarakertagama*, include the areas of OninFakfak, Kowiai located close to Kaimana, and Wandan (Mansoben, 1995: 69, Sinaga, 2013: 34). Local traders in these places gathered local products including cloves, nutmeg, and mace from the Maluku and the scales and birds of paradise from Papua. The fleet purchased these commodities to take to Malacca to be traded or exchanged with commodities there was a demand for among the people of Majapahit Kingdom.

When the monsoon winds blew east, the merchant fleet, which had picked up local products to sell in the markets in Malacca, got ready to sail and left the Spice Islands on its westward voyage down into the trade areas of Sulawesi. The areas in the region visited by the merchant fleet, and recorded in the book of *Negarakertagama* include: Buton, Luwu, Bantaeng, Selayar, and Makasar (Poelinggomang, 2002: 20-21, Reid, 1983: 122, Yamin, 1986: 60, 63). The exact location of Makasar in that period is difficult to identify. However, when other ports on the west coast of Sulawesi faded and the only ports that continued to grow were Tallo and Sombaopu, these two ports have been fused were called Makasar, indicating that all the ports on the west coast of Sulawesi was categorized as "makasar", the closest transit to Maluku. This happened in the second half of the 16th century, particularly during the reign of I Manrigau Daeng Bonto Karaeng Lakiung Tunipalangga Ulaweng (1546-1565), the 10th King of the Gowa Kingdom who became the 2nd King of the Kingdom of Makasar (Poelinggomang, 2002: 24-25). During that period, the ports which were growing on the west coast, the southern peninsula of Sulawesi Island, before the establishment of the port of Tallo (at the end of the 15th century) and Sombaopu (at the beginning of the 16th century, circa 1515) were Bandar Siang (in Bungoro, Pangkep), Bacokiki (becoming part of Pare-Pare), Suppa (in Pinrang Regency), and Napo (in Poliwali-Mandar regency, which used to be part of the territory of the Balanipa Kingdom).

It was clear that the Majapahit merchant fleet also conducted commercial sailing along the west coast of Sulawesi to the north into the area of maritime trade zone of the Sulu Sea, present day southern Philippines. This trade zone was involved in the trade of slave acquired through piracy. There were three groups of peoples who engaged in piracy from the Sultanate of Sulu, namely Ilanun which was generally active in the western part of Indonesia, and the Balangngingi and Mindanau groups which operated in eastern Indonesia (Lapian, 2009). The slaves bought and sold in the area were the mainstay of the seafaring groups, so they became a target for the sailors and merchants.

After conducting commercial sailing in this area, capitalizing on this east monsoon wind, the fleet sailed along the east coast of Kalimantan and then on to Malacca. The trade

center of Malacca was founded by a prince from Palembang named Parameswara. He managed to escape when Palembang was attacked by a Majapahit military force in 1377. He finally got to Malacca around the year 1400. He found it to be a good port, because it could harbor sailing ships in all seasons, both the northwest and east monsoon, and it was situated at the narrowest part of the Malacca Strait. He successfully developed Malacca into a large international port, a port of transit for the produce from the maritime Trade Zone Bay of Bengal the maritime trade Zone of the Java Sea, in addition to produce from China that included various types of porcelain, silk, and jewelry. Traders from Majapahit marketed or exchanged the products that they got when trading in Maluku with the products of the west zone such as textiles, tapestries, and Indian silk fabric.

During the time of the east monsoon, sailors and merchants from Papua, especially the people of Biak and Noemfoor pursued maritime trade to the east. They brought with them produce such as sago, birds of paradise, and tortoiseshell scales to trading centers in Maluku including Tidore, Ternate, Seram, Nusa Laut, and Buru, and to Gorontalo, Selayar in South Sulawesi, and to the islands of East Nusa Tenggara. They traded or exchanged their commodities for various types of porcelain including Ben bepon, a type of plate, textiles, various kinds of fabrics from Timor including weaving from Rote, Sabu, Flores, Alor and Sumba (Kamma, 1981: 60, Sinaga, 2013: 35).

The relationship between sailors and traders from Papua with commercial centers in the eastern Indonesian islands was very close. That was why some of them, through the process of this trade, settled on the island of Halmahera, a group popularly known as the Sawai. There were also some who settled in North Seram. The close relationship was also marked with support and assistance provided by troops from Biak led by Gurabessi to Tidore, when the kingdom was at war with the VOC in 1649. There were 24 boats containing reinforcements for the kingdom of Tidore (Kamma, 1981: 61). In addition, this trade network also influenced population distribution. While on the island of Halmahera and North Seram, there are the Sawai; in Alor archipelago, particularly on the island of Pantar, there are groups of people such as the Lebang people who have languages which are related to languages in Papua, for example the Thaiwa language.

When the northwest monsoon blew, the Majapahit merchant fleet sailed back home exploring the east coast of the island of Sumatra and the north coast of Java. On their return voyage, they would make a stop at important ports along the way. Commodities traded on the east coast of Sumatra included gold, camphor, pepper, silk, amber, honey, wax, sulfur, iron, cotton, and rice. On the north coast of Java, gold, tamarind, and foodstuffs

were among the products traded (Ricklefs, 2008: 37-38). The description suggests that the merchant fleet were away for more than a year on their trade voyages before they returned to their home port. The journey began when the northwest monsoon winds blew, and they returned when the same monsoon winds blew.

The ascendancy of Majapahit's merchant fleet began when King Rajasanagara (HayamWuruk) (1350-1369) came to the throne. But the fortunes of the kingdom were shaken with a succession crisis after the reign of King Rajasawardhana (1451-1453). This internal conflict led to the demise of Majapahit hegemony, and power fell into the hands of the ruler of the Islamic kingdom of Demak in 1478.

Maritime trade in Malacca

The involvement of Malay sailors and merchants in the world of maritime trade in the Java Sea maritime trade zone had been going on for a long time. Nevertheless, Majapahit's hegemony in maritime trade was unrivaled. However, when the role of the kingdom was waning, the role of Malay sailors and merchants became very important. Ricklefs (2010) described Malacca trading activities in various commodities with various areas in the Java Sea Maritime Trade Zones. The east coast of Sumatra traded commodities such as gold, camphor, pepper, silk, amber, honey, wax, pitch, sulfur, iron, cotton, cane, rice and other foodstuffs, and slaves. Those commodities were exchanged for Indian textiles. The commodities from the Sunda region included pepper, tamarind, slaves, gold, and other foodstuffs. Those commodities were traded for such things as Indian textiles, nuts, and rosewater. The commodities from Central Java and East Java included rice and other foodstuffs, pepper, tamarind, semi-precious stones, gold, rough textiles and slaves. Those commodities were traded for Indian textiles and goods from China. Commodities from Bali, Lombok, and Sumbawa were foodstuffs, coarse textile, slaves and horses. These were exchanged with coarse textiles from Java. The main commodity from Timor and Sumba was sandalwood. This was exchanged for coarse textiles from Java. The commodities from Maluku, nutmeg, cloves and mace, were traded for coarse textiles from Sumbawa, Javanese currency, and jewels from India. The commodities from South Sulawesi, such as rice, gold, and slaves, were traded for Indian textiles, resins, and other items. The commodities of South Kalimantan, foodstuffs, diamonds, gold, and camphor, were traded for textiles from India (Pires and Rodrigues, 1944: 135-223, Ricklefs, 2008: 37-38). To Malay traders, the most important products of in their trading activities were spices and sandalwood. They said that God had appointed the Maluku Islands for the production of spices, and the islands of Timor for sandalwood.

Commercial sailing lanes of Malay traders initially followed those of the Majapahit merchant fleet. However, due to their location in the Malay Peninsula, when the northwest monsoon blew, they started their voyage down the east coast of Sumatra, exploring the north coast of Java and continuing to enter the two trading Nusa Tenggara (Lesser Sunda) to Timor Islands, the producer of sandalwood. After that they waited for the southeast monsoon to continue the voyage to the area that produced spices. After obtaining the commodities, they waited for the monsoon winds to blow east to sail back to Malacca.

These commercial sailing lanes began to change in the early 16th century. This was based on the information obtained from the Malay traders, expressed by Tome Pires. He wrote that:

“The islands of Makasar are four or five days journey beyond the islands we have described, on the way to the Moluccas. The islands are numerous. It is a large country. One side goes up to Buton and Madura and the other extends far up north. ... They say that these islands have more than, fifty kings. These islands trade with Malacca and with Java and with Kalimantan and with Siam and with all the places between Puhang und Siam. They are men more like the Siunnesethuu other races.” (Pires and Rodrigues, 1944: 226, Poelinggomang, 2002: 21).

This not only describes the trade relations between Makasar and other trade centers, but also provides the necessary information of a faster voyage to reach the spice-producing areas. If you had followed the old path, the crossing would have started in October or November. From East Nusa Tenggara, they had to wait for the southeast monsoon wind to blow, which only began in June the following year to continue the journey to the Moluccas. That was more than a seven or eight month voyage across the sea before reaching the Spice Islands. This new route greatly reduced the travel time; within only four or five-day voyage, they arrived in Makasar, and then they were able to sail to the Moluccas in a short time, about three or four days.

The role played by Malay sailors and merchants enabled Malacca to maintain its position as an internal transit port for the textile products from maritime trade zone of Bengal Bay; for spices and sandalwood from maritime trade zone of Java Sea; for porcelain, silk, and various jewelry from maritime trade zone of the South China Sea. Being the place where the traders from three maritime trade zones met showed us how busy Malacca was in the world of trade. This had lured Portuguese sailors and merchants who were looking for the most important commodities in the world trade at that time, namely spices, to conquer Malacca (1511) and then turned it their base in search areas that produced spices.

The presence of Malay sailors and merchants in the area that used to be under the hegemony of the Majapahit kingdom, gave the Malays enormous influence over the population in the trade centers of the archipelago. One of the effects that really stood out was the use of Malay in the world of trade throughout the archipelago that had been initiated by the kingdom of Majapahit and also become the means of communications with other foreign merchants (outside the archipelago), among others: the Chinese, Arab, Indian, and then the Europeans: Portuguese, Spanish, Dutch, English and Danish traders.

The Portuguese eventually found out about the progress and wealth of Malacca. The information encouraged the king of Portugal to send Diego Lopes de Sequeira to find his way to Malacca, establish a relation with its ruler, and settle there as the representative of Portugal. Sequeira finally arrived in Malacca in 1509. At the beginning of his arrival, the Portuguese envoy was well-received by Sultan Muhammad Shah (1488-1528), but then he began to see the Portuguese as a serious threat to his power. Consequently, the sultan turned against the Portuguese envoy, and murdered and detained a number of Portuguese in Malacca and attacked the four Portuguese vessels at the port. The attempt to detain and attack and the ship failed, because the skippers of the ships escaped and sailed out to sea.

The incident pushed Afonso de Albuquerque (1459-1515), who conquered Goa in 1510 to turn the place into a Portuguese permanent home base, to prepare his military power to attack Malacca. In April 1511, he sailed to Malacca with a military force numbering about 1200 troops on board 18 ships. He conquered and occupied Malacca in November 1511, and subsequently prepared a defense in place to anticipate retaliation from the Malays. He then sought further information about the sailing route to the islands of spice.

In 1512 he sent a merchant fleet consisting of three sailing ships under the command of Antonio de Abreu to find the regions that produced commodities. The fleet followed the sailing lanes of the Malay traders who had left Malacca. The fleet finally arrived in Banda. In that place, they acquired so many spices that De Abreu bought a Chinese junk to transport them to Malacca. He entrusted the leader of the flotilla with the Chinese junks to Francisco Serrao, and chose a number of Portuguese crew and inhabitants of Banda as the crew. In his voyage, the junk was hit by the storm and the waves which damaged the ship forcing it to land in Penyu Island. When a boat of Bajo people (sea living people) visited the island, the crew caught him. After a negotiation, Bajo sailors agreed to take them to Ambon, on condition that the boat of Bajo People would not be seized. As agreed, the Bajo People took Serrao and his crew to Ambon and landed in Nusatelo, west island Ambon (Amal, 2007: 236-237, Poelinggomang, 2014: 142-143).

The news of the Portuguese presence reached the Sultan of Ternate, Bayanullah and Sultan Tidore, Almansyur. The two sultans sent a messenger to pick up the Portuguese people. It turned out that the envoy of Sultan of Ternate arrived first so that they could take Serrao and the 9 other Portuguese to Ternate and landed at the port of Talangame. The main objective of picking up the Portuguese was to make them advisors in the implementation of his administration. Serrao was well received by the sultan and served as an advisor to sultanate government.

Serrao utilized that position to obtain the right to monopolize the spice trade in the sultanate. The Sultan also allowed Serrao to build a fort, as a place where he and his retinue resided. Finally a fort known as Fort Gamlamo, which by the Portuguese authorities named Nostra Senhora de Rosario (Our lady garlanded with roses).

The search for spice-producing areas was also undertaken by Spanish merchants and mariners in 1519, Ferdinand Magellan came to the king of Spain, Charles, to request approval to sail to the Spice Islands. The plan received the king's approval and support, so that on August 10, 1519, the merchant fleet consisting of five sailboats left their country sailing westward. The merchant fleet finally arrived at Tidore on 8 November 1521 with two ships led by Gonsalo Carvalhindo, because in the process of sailing the Spanish fleet lost 3 vessels and the leader of the cruise, Magellan, who along with 60 crew members, was killed on Maktan Island, south Phillipines. The presence of the merchant fleet was warmly welcomed by the Sultan of Tidore, so they got the opportunity to buy cloves to be transported to their country.

The presence of Portuguese and Spanish at the center of the spice-producing areas did not face any resistance from local authorities. Instead a violent conflict between the two European powers took place. The impact of the dispute between the two European powers was ultimately rooted in a conflict between two local powers, namely the Kingdom of Ternate and Tidore. This happened because Ternate Sultanate supported Portuguese sailors and merchants, while Tidore sultanate supported sailors and merchants from Spain fought over spice products. This shows that the conflict between the Portuguese and the Spanish is synonymous with the conflict between the Sultanates of Ternate and Tidore.

Maritime Trade of Makassar

The fall of Malacca to the Portuguese caused Malay sailors and merchants to make an exodus to the eastern regions, to the ports located in Kalimantan and Sulawesi. Their presence added to the proliferation of trading activities in the ports of commerce located

on the west coast of Sulawesi, among others: Tallo, Lunch, Bacokiki, Suppa, and Napo, in addition to a number of the city inhabited by merchants of Gersik (Majapahit) called Garassi. There are two known Bandar Garassi on the west coast: one in the south of the kingdom of Gowa, and the other one having the same name in the territory of Bajeng Kingdom in Mandar region (now West Sulawesi). This condition encouraged authorities of Gowa Kingdom to participate in world maritime trade. Finally, the 9th King of Gowa, Daeng Matanre Karaeng acquired Tumaparissi Kalonna (1510-1546) and built a sea port city called Sombaopu at the mouth of the Jeneberang River. A royal palace, which also functioned as the administrative center of the kingdom, was also built.

Upon the completion of the port and the royal palace's development, the king of Gowa started his efforts to expand his hegemony over other kingdoms with an orientation toward maritime trade. The initial step was to fight against the Tallo kingdom in 1528. The raging war was finally resolved peacefully because the rulers of the two kingdoms came from a common ancestor. The successor of Gowa's Kingdom was the son of the king of Gowa, Tunatangkalopi (1445-1460) named BataraGowa, and while the Tallo Kingdom was established by the younger brother of BataraGowa (the youngest son Tanatangkalopi) named Karaeng Lowe riSero. Therefore, an alliance uniting the two kingdoms was set, so the following phrases appeared: "two kings, but one people" (*rua Karaeng serejinaata*). The governance structures of the two kingdom, Gowa-Tallo, were also agreed with the king of Gowa who bore the title of "the worshiped one" (*sombaya*, king); and the king of Tallo bore a title of "Mangkubumi" (*tumabicarabuta*).

The alliance of the two kingdoms subsequently strived to broaden the influence of power to the kingdoms involved in maritime trade. To accomplish this, they launched attacks against the kingdoms involved in maritime trade, among others: Siang, Bacokiki, Suppa Napo, Bantaeng, and Selayar. The conquered kingdoms were required to conduct trade relations with the ports of Tallo and Sombaopu. This was done because the two rulers implemented free trade policies by adhering to the principle of "open sea" (*mare liberium*).

When the 10th King of Gowa, I Manrigau Daeng Bonto Karaeng Lakiung Tunipalangga Ulaweng (1546-1565) assumed the throne, he considered that the policies implemented by his predecessor were unfavorable toward the trade progress of Tallo and Sombaopu. Therefore, he planned to conquer the coastal kingdoms with the concept of "I order – you obey" (*makanama nu manrio*). This concept was aimed to diminish trading activities in the conquered kingdoms, because after the conquest, he transported the people and goods from those commercial cities to his trading city. This policy was basically aimed at

diminishing the commercial ports in the surrounding areas and to turn Tallo and Sombaopu into the most important trading center. The plan was realized so that the two ports finally became one city, and since then it has been called the Port City of Makasar, and the Gowa-Tallo kingdom who ran it was called the Kingdom of Makasar. As a result of that policy, Malay traders who previously resided in the commercial port city of Siang, Bacokiki, Suppa, asked for permission to settle in Makasar. They were then allowed to settle in the Mangngalekana area.

Before the government of Tunipalangga Ulaweng, sailing trading activities conducted by the people of South Sulawesi called Makasar traders covered only western areas: Malacca, Java, Kalimantan, Siam, and all places between Pahang and Siam by trading their products such as white rice and some gold. But after the arrival of the Malay traders, they also began to engage in the trade of spices in the Moluccas. The research conducted by Christian Pelras shows that Makasar exported spices and rice to Malacca in 1559 (Pelras, 1979/1983: 63). This indicate that the sailors and traders from South Sulawesi were also involved in trade in the Maluku Islands and the island that produced sandalwood, Timor.

The development of Makasar lured European merchants who had been involved in the world of maritime trade in Indonesia to establish trade relations. Portuguese traders even requested and were granted permission to establish lodges in Makasar in 1532, while the Spaniards only strove to establish trade relations. Later in 1615 the new Spanish government requested permission to establish lodges. In addition to the two foreign trade representatives, request for establishment of lodges also came from other foreign merchants, among others: the Netherlands in 1607, England in 1613, Denmark in 1618, and China in 1618. According to F.W. Stapel, Europeans were attracted to stay in Makasar because of kingdom's rulers were forgiving. All foreigners were well received; Portuguese and Muslim were free to build houses of worship (Poelinggomang, 2002: 28, Stapel, 1922: 8).

Makasar's authorities and their sailors and traders had always been open to establishing trade relations with all parties. This stance met resistance from Dutch traders who were members of the East Indian Trade Association (*van het Verenigde Oost-Indische Compagnie* - VOC). VOC merchants did not want Makasar's sailors and merchants to be involved in trade in Maluku. The rejection was certainly related to trading techniques applied. Van der Chijs described that the trade relations between the rulers of the Kingdom of Makasar with the authorities of the island of Banda as follows:

"...The ruler of Macassar had an "agent" on Banda for the spice trade whom he supplies every year with rice, pieces of cloth, and everything that is liked there, in order to gain as

much mace for his country as possible, and thus to lure some merchants to him; is also able to have great quantities bought up; he also knows to give gift to the Bandanese priests so that it works to great advantage to him there..." (Poelinggomang, 2002: 29, van Leur, 1983: 143).

This led to a trade technique, which enabled them to have the opportunity not only to buy the products of the local population, but also to get rewards from the local authorities and clerics. In our culture, the returning gifts for the gifts we have received should have higher value.

In addition to the technique described by Van der Chijs, there was information stating that the Papua merchants were happy doing commercial transactions with merchants from Makasar for several reasons. First, they bought the products of the people at reasonable prices, when compared to the prices offered by the VOC merchants. Second, according to them, which was really important, Makasar traders always kept their promises. Therefore, they preferred to trade products they had collected, such as scales, sea cucumbers, aloes, and birds of paradise with Makasar traders rather than with traders from Tidore, and other places.

When the VOC strived to monopolize the spice trade in the Moluccas, the ruler of the kingdom of Makasar made attempts to protect its people and all the activities of other traders who wanted to trade in the area. It was described by Cornelis van Leur as follows:

"...all the Malay and other foreign traders, being more than six hundred strong, prepare themselves to go out again with the beginning of the arrival western monsoon, most of them with small vessels (usual for the spice trade) to Amboyna and the surrounding regions, with the great a capital as they can bring together, some of it rice, but most of it cash, through last year's profits being made keen and fed with a great hope of making still more this year; (it is said that) the king for his part will send two chiefs over them, with the express charge that in case the inhabitants of Amboyna or thereabouts request any help or assistance they shall perform that same completely, according to their ability ..." (Poelinggomang, 2002: 34, van Leur, 1983: 143)

This shows that commercial sailing to the Moluccas, when VOC applied trade monopoly policy, was conducted jointly and under security protection of the authorities in the Kingdom of Makasar. The inclusion of the two leaders was meant the inclusion of two warships known as *galei* (a type of Arabian frigate built under Portuguese instructors) to protect the merchants from the threat of the VOC and provide assistance to the parties in the Moluccas when needed.

This shows that unity of brotherhood between the sailors and traders and commodity-commerce community had been established. A sense of mutual unity and mutual assistance had been established through maritime trade activities. It is easy to perceive why the kingdom of Makasar was willing to gather all seafarers and traders who wanted to trade in Maluku and ensure their safety in commercial voyage to the Spice Islands. Why would the Kingdom of Makasar prepare a war fleet to help the kingdoms in Maluku when Makasar itself received threats from other parties, particularly from European people, especially the VOC. All of this was based on the sense of brotherhood and unity. The unity of Indonesia have actually been built through maritime trades, which began with the trade patterns of Sriwijaya's sailors and merchants, sailors and merchants of Majapahit and then confirmed and strengthened through the sailors and merchants of Malays (turning Malay into an intermediate language/lingua franca) and cemented by the authorities, sailors and traders from South Sulawesi.

Stapel, who studied Makasar War (1666-1667; 1668-1669) revealed the state of commerce in Makasar at the beginning of the 17th century as follows:

"Traders in Makasar have a character that attracts attention; the country itself has few or no products to export. Except for rice which was plentiful and of best quality and cheap; there was also livestock (even pigs before 1603). Portuguese People from Malacca and the Moluccas also took mainly foodstuffs for ships and their colonies from here. But more importantly, Makasar was a transit trade of spices and sandalwood. Before the arrival of the Europeans, people of Makasar were accomplished seafarers. They loaded the merchandise just mentioned to the boats and junks from the Moluccas and the Sunda Islands and carried them through Makasar to ports located in the north and west. In addition, the Bugis, the Malay and the Javanese also brought their products to be traded in Makasar, especially after the Portuguese occupied Malacca in 1511 and native traders mentioned avoided it, because of the oath of the Captain of the Malacca. In Makasar they were not afraid of such oaths. Although the king was considered an "infidel", he loved to forgive. All foreigners were well received. Portuguese and Moslems were free to establish their places of worship here" (Poelinggomang, 2002: 20-30, Stapel, 1922: 9).

Stapel also revealed that the prices of spices in Makasar were lower than those in the areas of production. It lured foreign traders, especially European traders, they asked for lodge permits in the port city. Therefore the city is called the city of the world.

Cornelis Speelman made an important record about the trading network of Makasar in 1670. The record was called "*Notitie van Cornelis Speelman*" Note from Cornelis Speelman.

He revealed that Makasar had a wide network of trade relations. It was in trade relations with Manggarai, exported: Chinese trays, small Chinese gongs, large elephant tusks, axes, machetes, red karikan, Selayar fabric and sword Tomboku; imported cinnamon, wax, and slaves. Trade relations with Timor: exported the same commodities as those exported to Manggarai, also dragam, touria Godia, bethilles, touriacindai (cotton flower), Chinese silk and gold bracelet: imported: candles, sandalwood, slaves and amperage stone. Trade relations with Alor and Tanimbar: exported: the same as the export to Manggarai with the exception of a small type of elephant ivory; Imported: amperage stone, wax, hawks bill turtle, and slaves. Trade relations with Bima: exports Chinese silk, Salampuri (a type of white or colored cotton), gauze, and Makasar currency (kassa); Imports: assorted Bima fabrics, horses, buffalos, and sapan wood. Trade relations with Buton: exports Indian silk, salempuri, kassa, Dongri (a type of fabric to make the screen), KACI red cloth, red bethilles, red karikan, and red giovoni (a kind of material of mouselini); imports male and female slaves. Trade with Tomboku: exports in the form of assorted clothing, as well brown and red bathilles; import a sword, the turtle, and candles. Trade relations with Seram is: exports in the form of assorted merchandise; imports form masoi (a type of MassoiaAromatica bark, which is used as a medicinal and incense fragrant). Trade relations with Mindanao: exports in the form of assorted fabrics such as those exported to Buton, also bafta (a type of cotton from Persia), blue sarampuri, and blue bathilles. Imports are in a form of cinnamon, wax, slaves, gold, pearls, tobacco and hawksbill turtles. Trade relations with Sambuangan and its surroundings; the same export of commodities exported to Mindanao; the same import as that imported from Mindanao, including kauris (a type of white shells used as the bahar root), ringgit Spain, and gold. Trade relations with Macao: exports such as sandalwood, sapan, candles, wicker, ivory, pepper, and the ringgit Spain; imports of Chinese products in the form of goods, such as: silk, gold jewelry, silk, copper, gongs, pan, root China, various kinds of porcelain, and others. Trade relation with Manila: export of various kinds of fabrics; imports in the form of ringgit Spain, gold, porcelain; Japanese copper, and tobacco. Trade relations with Cebu: exports like those to Manila; the same import as of Manila, also hawksbill turtles and sugar. Trade relations with Siam: export in the form of sandalwood, swavel, and caurys; import of clothing, indigo, ivory and Japanese copper. Trade relations with Cambodia: exports many types of textiles and sandalwood; imports: including silk, bensui (Storax Bensoin), ivory, Japanese copper, copper kettle, porcelain and more. Trade relations with Batavia: export in the form of timber, wax, hawksbill turtle, slaves, and various kinds of currency; imports in the form of various types of textiles. Trade

relations with Bantam: export and import the same as with Batavia. Trade relations with Palembang: exports such as sandalwood and slaves; Import pepper (Noorduyn, 1983: 103-118, van Leur, 1983: 195-196).

Anthony Reid, in his introduction to his study on trade in Makasar in the period under the control of the ruler of the Makasar Kingdom, said that the history of the success of Makasar trade growth is unmatched in Indonesia history (Reid, 1983: 117, Sutherland, 1989: 98). This success could not be sustained because of the ongoing conflict between the ruler and the Kingdom of Makasar and the VOC, which finally led to a major war known as the War of Makasar. The war that flared up in December 1666 was successfully concluded on 18 November 1667 with a peace agreement reached in Bungaya. This agreement was really a political contract that harmed local kingdoms and dimmed the trading activities of maritime kingdom of Makasar. The activities of maritime trade in the region were finally under the authority of the VOC.

The VOC, which took over the kingdom of Makasar trade center, did not intend to make the commercial city port one of the most important ports, although it was a very strategic commercial port. However, considering that the population of South Sulawesi were accomplished sailors and had a broad network of relationships, a policy to turn off their activity should be taken. That was why Cornelis Speelman established it as a commercial city port to secure a VOC monopoly in Maluku. It was seen to re-empower one of the points in the Bungaya Treaty (actually a contract) which prohibits Sulawesi inhabitants from engaging in commercial sailing to the east (to the Moluccas and its vicinity). It was also a step to stop the kinship and mutual help that had been built either with inhabitants in Maluku and with the population in Papua. The ban was even imposed on seafarers and other traders who previously practiced maritime trade to Maluku and Papua.

Netherlands Control of the Maritime World (1670-1799)

When port city of Makasar turned into simply a post to secure trade monopoly in the Moluccas, the sailing and maritime trade conditions in the Maritime Trade Zone of Java Sea faded. Sailors and traders from South Sulawesi shifted their trade activities to Malacca Peninsula, known as Maritime Trade Zone of Malacca Strait. Commercial sailing activity to Maluku was controlled by Dutch sailors and merchants who used only one route, Batavia - Makasar - Maluku, and returning by the same route. From Batavia, all products obtained from the Moluccas were sent to their parent state.

Despite close supervision by the VOC in the implementation of its monopoly, there were still a number of traders entering the Moluccas and buying mainstay commodities, namely spices. Such trading activities by sailors and is branded as “illegal trade” (*wilde the handle*). Commodities were obtained due to the close relationship that had been built along with the commodity-producing farmers. The commodities were taken to the Sulu Maritime Trade Zone area (southern Philippines) and could be traded with the Spaniards in Manila, or the Portuguese in Macao, and the British in Bengkulu (Sumatra) and Malacca Peninsula. But when the British successfully re-established the Free Port (Penang) in Malaya, it attracted traders from South Sulawesi (popularly called The Bugis Traders) to focus their activities on that commercial port city.

When the Chinese products, especially tea, got a vast market in Europe, VOC began to establish and strengthen trade relations with the tea-producing countries. To clear the way for the trade, the holders of VOC political control made a policy to open its port city to the merchant ships of China (commonly known as wangkang or junk) in 1731, although there were only a few ports, among others: Batavia, Semarang, Surabaya, Banjarmasin, and Makasar. It was not considered to hamper policy on spice monopoly, because the Chinese sailors and traders prefer sea products, among others: sea cucumber, jelly, pearl shell, hawksbill turtles, shark fins, and lola. The products needed by Chinese merchant were not needed in Europe. However, it was not realized that other European traders also strived to acquire marine products to establish trade relations with China in order to acquire tea to be marketed to Europe. Tea was in its development of becoming the featured product in European market.

This was what drove Thomas Stamford Raffles to resign from his post as Lieutenant-General of the Dutch East Indies (1811-1816) so that he could seek a safe harbor to secure the relationship with China. He finally succeeded in establishing Singapore with its status as a free port in 1819 and invited the Bugis traders to settle in Singapore, in Kampung Gelam, near the seat of Raffles. The cooperation between the British businessmen and Bugis traders managed to make the port city into the center of marketing for marine products, Chinese products, and British industrial products (Poelinggomang, 2002: 62-63). The meeting between the three groups with their own mainstay commodities shows us how crowded and busy the trading activities in Singapore were and even in its development stage, made it the trade center for the products from Asia, Southeast Asia, Europe, and America.

The need for marine products had also encouraged people to seek the waters abundant with commodities that could be marketed at port cities visited by the Chinese merchants.

Sailors and traders from South Sulawesi (Makasar, Bugis, Mandar, and Buton) explored the waters until they reached the northern coast of Australian continent, which was rich in sea cucumbers, clams, hawksbill (tortoiseshell) and other marine products. Sailors and traders from Tidore, Ternate, and Papua sailed eastward entering eastern waters of Papua when the monsoon winds blew west. They wandered down to the Solomon Islands, Vanuatu, and Fiji. They sailed home when the eastern monsoon started to blow.

Products obtained were subsequently exchanged for commodities brought by sailors and traders from South Sulawesi searching for and trading in the South Maluku islands. After the transaction, the merchant and sailors from South Sulawesi brought the products they obtained to the port cities visited by Chinese traders. Most of them started marketing their products in Makasar. However, their products could not all be sold to Chinese merchants, because every year only two junks were allowed to visit Makasar. What often happened was that there were one junk from Macao and one from Canton. This condition caused the sailors, fishermen and traders who wandered for marine products to continue their voyage to Singapore to market their commodities. Such conditions eventually encouraged them to focus more on marketing their commodities at the British free port. This was the underlying condition of Wong Lin Ken statement that Singapore's progress was due the centralization of trade of Bugis traders (Wong, 1960).

The concentration of the trading activities of sailors and merchants from South Sulawesi in Singapore in turn stimulated the Chinese traders to focus their trade activities on that commercial port city. The concentration of activity of Chinese traders in Singapore was also related to the prohibition made by the Chinese imperial government for merchants to trade to Java (Batavia, Semarang and Surabaya) because the VOC authorities murdered Chinese people who settled in that commercial port city. Another factor was British commercial port city's position as a free port. Moreover, in this free port city, they could obtain British textile products at low prices in large quantity.

Singapore's development made the Dutch government worried about the increasingly widespread influence of other European nations in the region that they claimed as their own territory, considering the sailors and traders from the archipelago focused their trade on Singapore. This was caused by the fact that Dutch industrial products were expensive on the market, leading to smuggling. In addition, British merchant also marketed weapons of war and taught them how to use them. Therefore, a number of local independent and sovereign kingdoms directed their people to trade and buy war supplies in Singapore.

The situation finally pushed the Dutch government to adopt the free port of the British policy as a step to attract sailors and native merchants to use its port city and not to visit Penang and especially Singapore. In 1847, Makasar was declared a free port. A year later (1848) the port of Manado and Kema received the the same status, and in 1953 the port of Kaili, Ternate, Ambon and Banda also were also to declare to the same status as that port city of Manado (Wong, 1960: 82).

The announcement of the status change of the ports to be free ports received a good response from the European merchants who were interested in the tea trade. Therefore, they flooded those commercial ports to acquire marine products to be brought to China in order to get tea to be taken back to their respective countries. Local inhabitants were happy to trade with European merchants who flooded their commercial port cities, but gave less attention to Dutch traders. The reluctance to trade with Dutch traders was caused by the prices of their products, among others: wool and textile which were expensive. This condition related to the Dutch government's policy that required all Dutch products to be imported to the ports located in Java, namely; Batavia, Semarang and Surabaya. The three ports were declared as "the ports with import and export duties applied" as result of the government policy to abolish the free ports in 1876 as they benefited only foreign traders (other Europeans).

The plan to abolish the free port policy received rejection from various parties, including the Chamber of Commerce and Industry officials who were in the Dutch East Indies (Makasar, Surabaya and Batavia) as well as those in Amsterdam and Rotterdam, and the liberals in the Dutch parliament. Finally the cancellation plan was postponed, and a measure to appropriately solve this problem was sought without causing native traders to shift their activities to other foreign commercial port cities.

The measures to be taken were: (1) strive to dominate the sailing lanes and trade; in connection with this effort, they formed a sailing company named the Royal Sailing Company (*Koninklijk Paketvaart Maatschappij*, KPM) on September 4, 1888. The management of this business prepared the facilities and conducted further study on the state of the infrastructure and commercial sailing to restructure the commercial sailing lanes. The new sailing company commenced its operations on January 1, 1891. The sailing company was designed to take over people's sailing lanes so that commercial sailing activities could be successfully monopolized by the KPM. To that end, it received a subsidy on each voyage and privileges in the loading and unloading of goods at every commercial port.

The policy caused the decline in people commercial sailing activities, which assured that they could no longer trade with other foreign commercial port cities. Almost all commercial lanes to production areas were controlled by the KPM. For this reason, when Joannes Benedictus van Heutsz (1904-1909) became the governor general of the Dutch East Indies, he set up a policy to conquer all the kingdoms with loan status (*leenvorstendom*) and allied kingdoms (*bondsgenootschappelijke Landen*) which were deemed free and sovereign. In June 1905, he sent military expedition to Sulawesi, and conquered vassal and allied kingdoms and forced them hand down their territories and power to the Dutch government by signing a short statement (*korteverklaring*).

Conclusion

It is clear that the colonial government did not build brotherhood and unity between the kingdoms in this archipelago. Their political and maritime trade activities aimed only to control the sailing lanes of the people of the archipelago and to exploit them. There is no indication that the colonial policy was to unite the existing kingdoms, but it acted in a divisive way to conquer them.

Conversely, upon a closer look, maritime trade activities of the inhabitants of the archipelago aim to achieve not only economic benefits, but also to build a network of cooperation, closer fraternity, and even familial relationship among themselves. A Dutch poet once called Makasar sailors and merchants with the phrase: *hey De hantjes van Oosten* (the Pleasant Roosters pleasures of the East). The expression was related to the character of the sailors and traders from South Sulawesi who did not want to see the people of Asia treated unreasonably or unfairly. When there were such things, they would defend those treated unfairly at the expense of their body and lives. This kind of attitude had made them welcomed anywhere they went.

The unity of Indonesia as a nation forged through maritime activities in the Maritime Trade Zone of Java Sea sponsored by the kingdoms of Sriwijaya, Majapahit, Malay traders, and the Kingdom of Makasar. Maritime trade activities were managed to pursue not merely economic benefits. They strove for family relationships, building cooperation, friendship, and unity. That was why when the Proclamation of independence echoed, all the people of the archipelago joined hands to greet and fight to defend it.

In the world of trade, Stapel (1922) revealed the character of the population of South Sulawesi and the Netherlands in a trade with the phrase: *eronder of er op, jij of ik* (literally it means: on top or bottom, you or I, meaning "win or lose, you or I"). This expression indicates that the two groups were firm in the competition. On the other hand, it also demonstrates

an attitude to refuse Dutch traders who were more concerned with economic interests at the expense of the people or inhabitants of the archipelago. Therefore, they strove to destroy it. This was also reflected in the policy holders of political control who had always been and continued to protect all merchants without exception. They also strove to be the protector of all the kingdoms involved in maritime trade.

The description clearly shows that the territorial integrity of Indonesia and Melanesia in the Republic of Indonesia has been built and laid since its involvement in the world of maritime trade. Togetherness to establish trade relations eventually realized, called Maritime Trade Zone of Java Sea (Hall, 2011). It should be recognized that the policies and the roles of the holders of political control of Sriwijaya, Majapahit, the Malay kingdoms, and the kingdom of Makasar have built bonds of friendship, fraternity, brotherhood, and unity.

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CHAPTER 8

Gregorius Neonbasu

Anthropology and Oral Traditions in the Melanesian World

Melanesia: An Oceanic Perspective

The historical study of an area is not always complete and perfect. Data acquired from a certain time has always emerged from the thoughts of someone or some people, which can never be disassociated from their personal experience. According to Fox (2003), the writing of history has never been completed at a specific time. There will always be new thoughts and reflections as well as new research, on both the history that has been presented earlier and recently presented in specific time and space.

Oceania: A Very Short Introduction

In the period of the history of the Pacific Region, there is a stretch of time in the perspective of anthropology regarding the appearance of Oceania under the discussion topic of Melanesia. In early historical reflections on the emergence of Melanesia, the term Oceania was broader than the term Pacific Ocean, which conventionally includes five areas: (1) The Australian Continent (2) Melanesia: Papua New Guinea and Fiji, (3) Micronesia: Marianas, Caroline, Marshall and Gilbert Islands, (4) Polynesia: Hawaii, Tahiti, Easter Islands, and New Zealand, and (5) Eastern Indonesia: East Nusa Tenggara, Maluku, Indonesian Papua and East Timor.

However, in the perspective of history as told by experts in the area of language development, this pattern of distribution is insufficient because it does not include the socio-cultural realities. In the existing perspective of language (ethno-linguistics), it is only the Austronesian language that covers the entire region of Southeast Asia, Madagascar, Taiwan (Formosa), Indonesia, Melanesia, Micronesia, Polynesia, and New Zealand. Indonesia is among the countries with the largest population diversity, bigger than that in the Pacific region as a whole (Clark, 1977).

Oceanic Historiography

The previous chapters show the dynamics of understanding of history that mostly refer to the findings in the 19th century by British, Dutch, and French sailors. The term Melanesia

appeared in the 19th century, in 1832, coinciding with a review of the names given by a French expert, Jules Dumont D'Urville about Melanesia, which he derived from two Greek words *mellas* (black) and *nesos* (island). As a region, Melanesia had existed since thousands of years before the French coined the name. Since the period of the last ice age (about 20,000 to 14,000 years ago), a long and convoluted story about Austro-Melanesia ancestors as the inhabitants of the northern hemisphere, including South East Asia and the Pacific region has been revealed.

In the written history of Pacific region, from around the 16th century until the 18th century, missionaries, both of the Catholic Church (Missions) and Protestant (Zending) began to explore the Oceania region. The area had long become the destination of massive migration, which is estimated to be about 200,000 years ago. Here is the period of Europeans' exploration to the Pacific region. In 1513, Vasco Nunez de Balboa discovered the Pacific region. The mission was continued seven years later; Ferdinand Magellan discovered South America and sailed throughout the Pacific region. In the course of his expedition, the Tuamotu Islands and Guam were discovered. In his expedition together with the Spaniards, he discovered the Caroline islands continued by Alvaro de Mendana de Neira and Pedro Fernandez Quiros.

The same source states that in about 1567 Peru was discovered followed by the discovery of the South Pacific during an expedition to the Solomon Islands. Shortly after that, in 1606, Chief Pilot Quiros discovered the Cook Islands, Tikopia, and New Hebrides. At the same time his colleague, Vaez de Torres, discovered Papua New Guinea, and several northern islands of Papua New Guinea and Australia. Spanish expedition was motivated by a treasure of sandalwood, relying on the spirit to spread Christianity.

From 1615 to 1616, the Spanish mission was transferred to the Netherlands; the arrival of the expedition to the Pacific region is an extension of the Dutch expedition in the area of Indonesia. A Dutch sailor named Jacques Le Maire, came to the Tuamotu, and discovered Tonga region, the Bismarck Archipelago, New Ireland and New Hanover. In 1642, Abel Janszoon Tasman sailed from Batavia to the Pacific region and discovered New Zealand, Tonga, Fiji and New Britain. Dutch expedition to the Pacific was driven by trade interest, but from reports and records of this expedition, there was no prospect of building a good future in the Pacific region in the areas of interest. Tasman argued that Oceania was only

a transit area, and then the whole area was named Melanesia by implementing various procedures such as barter trade in Indonesia.

At the beginning of the 18th century, the discovery of Oceania advanced further when William Dampier came to the New Hanover, New Britain and New Ireland. In 1723, an admiral, Jacob Roggeveen, crossed the Pacific from east to west to look for possible formal opening of trading expeditions in the region. Then the discoveries of the Easter islands, the Tuamotu Archipelago, the Northern islands and the Samoa mainland were made. At that time, a serious study in the field of science to study life in the Pacific region began. In 1765, a British admiral, John Byron, was sent by the British Admiralty to the area and on his journey he also found his way to the Tuamotu Archipelago and the Gilbert Islands. In 1767, Samuel Wallis and Phillip Carteret voyaged to the Oceania region. Wallis landed in Tahiti and Carteret arrived in Pitcairn and also the Solomon Islands and Mendana, even though they were unable to describe the lifestyle of the people in the region.

Traditional houses in the village of Weaa Rebo, East Nusa Tenggara.



History was constantly evolving and new ideas with regard to this new area emerged. In 1768, a Frenchman, Louis Antoine de Bougainville, visited the Pacific region and discovered the New Hebrides, Rossel Island and the Lousiade Islands. All these discoveries are important in order to study the distribution of the European population in the South Pacific region and not merely the discovery of islands. Dampier's famous work *A New Voyage Round the World* is very important among all the accounts of expeditions from various countries of Europe. James Cook is remembered as the first person who gave the name Oceania to new areas discovered from the 16th to 19th century. He visited the region three times, (1) first in 1769, (2) second from 1772 to 1775 and (3) third from 1776 to 1779. These journeys resulted in a report in the form of data that helped determine the disposition and structure of people's life in the South Pacific and the use of the name Oceania.

James Cook in his famous work *A New Voyage round the World* wrote a detailed record of his visit to Bougainville that describes the atmosphere of royal life and records the ethnic population in Tahiti. Captain Cook's report gives a significant overview to institutions about the lifestyle of the overall population of Oceania. As mentioned in the record, in 1769, he was sent to Tahiti and New Zealand and the eastern part of Australia. In the course second journey, from 1772 to 1775, Cook successfully made various records and reflections as well as finding Tuamotu, Cook Islands, Marquesas Islands, Fiji, New Caledonia, New Hebrides, and Norfolk Island. This added to the developing picture of Oceania. On his third journey, from 1776 to 1779, Cook focused on the northern Pacific. He discovered the Tonga Islands, Christmas Island, and the Hawaiian Islands. In contrast to his predecessors, James Cook focused not only on trade, but also various aspects of life of the indigenous communities. He identified those aspects and took a relatively more humanistic approach, inasmuch as he paid attention to such socio-cultural aspects during his journeys to Oceania.

Since the beginning of the 19th century and up until 20th century, there have been people visiting the Pacific region, with a variety of intentions. In addition to trade, these intentions included such as humanitarian objectives of providing social and religious services. Along with such activities, a review of the records made in previous centuries about the structure of the life of society of Oceania as a whole began. The general impression is that the people in the islands of Oceania are religious and varied, and isolated from the reach of the main expeditions to the Americas, Africa, (Asia: India, Colombo, Singapore, Indonesia and straight into Sydney), to the north: Indonesia, Hong Kong, Shanghai, Yokohama and continued to America¹². In general the inhabitants of the Oceania region are not different from the population of Southeast Asia, but somewhat different from these races: Negroid,

Mongoloid, and Caucasoid. There is a claim that the Oceania stretches from the area around Southeast Asia, South Asia, that is from Malaysia to Hawaii and as far as the USA. There is no strong evidence of a change of the term Oceania to Melanesia.

The history of Oceania in the following periods consisted of various activities and trade motivations of European people including various trips of the travelers. Among them were missionaries of the Catholic Church and the Protestant Zending. In 1788, Europeans settled in Australia, and since then the Oceania region has become important in the process of European settlement in Australia mainland. In the frame of anthropological linguistics and ethno-linguistics, Oceania as the final dominant destination can be seen in the perspective of Proto Austronesian language family. This is dealt with in the description in one of the following sections.

Melanesian Anthropology

Geographically, it is difficult to say with certainty the existence of Melanesia because, based on the cultural transmission, the Melanesian race has dispersed to various parts



of the region. Specifically the Melanesian diaspora has reached all regions of Indonesia (especially Nusa Tenggara, Maluku and Papua), Solomon Islands, Vanuatu, New Caledonia, Tuvalu, the Bismarck Archipelago, Admiralty Island, Viji, Papua New Guinea and some of the surrounding islands. The following description will look in more detail about the origin of the Melanesian people.

Origins of the Melanesian People

There are varied opinions about the model and appearance of the Melanesian population. On the analysis and study of ethnogenesis and geological context, the Melanesian race is a fusion between the Negroid race and Australoid race. However there is a developing theory that Melanesia is a combination of (1) the Mongoloid race and Australoid race, also (2) a synergistic blend of the Asian race and Australasian race. From an ethnolinguistic point of view, the Melanesian population inherited the Austronesian languages and uses the Malayo-Polynesian languages. The general opinion is that the Melanesian population

Apenbayeren tradition of walking on hot stones, District of Biak-Papua (BPN)



The Papuans giving a very rich description of Melanesian race. Photo: BPNB Jayapura

is a mixture of Negroid and Oceanic races with their typical anthropological traits and language divisions.

The anthropological characteristics of the Melanesian population are black, curly hair and short stature. McCallum's (2004) writing about the Papuans gives a very rich picture of the Melanesians. The term Melanesia first appeared in the 19th century, even though the existence of such races as characterized by their name had existed for thousands of years. The term Melanesia evolved in the writings of the reports of the missionaries who came to visit the region.

McCallum noted that the definite year of the birth of Melanesia name is 1834, and is set as the date of the genesis of the name. It is actually based on the source from Polish encyclopedia. The Encyclopaedia Britannica mentions 1832, and there are still some references that have 1830. One thing is certain that from around 1826 to 1829, Jules-Sebastien-Cesar Dumont d'Urville led an expedition which triggered the revision of the chart of South Pacific Ocean and gave a precise description of the island groups of Melanesia, Micronesia, Polynesia, and Malaysia. The trip did not elaborate on the



Bhukere, a traditional method of catching fish. Photo: BPNB Jayapura

characteristics of the population that were later called Melanesian. McCallum said that the term Melanesia was widely used in the Catholic world discussions with the French in the year 1839 (McCallum, 2004).

On the map of the names' development, especially the names with suffix 'sia', other Asians popped up from the period of 1830 to 1834. In fact, the name Polynesia had been known long before that, as it was mentioned, among others, by a French traveler, Charles de Brosses in *Great South* when debating the various findings within a period of exploration to the South Pacific region. A year that should not be forgotten is 1756, in which de Brosses published his book, *Histoire des Terre aux navigasi Australes*, more than 70 years before the Dumont d'Urville Voyage. In the preface to the history of the navigation to Australian mainland, the political objective of his work was made clear - to encourage French exploration (McCallum, 2004).

Records on the Melanesian region from the 18th to the 19th century have always been associated with some ideas of the nature and the behavior of its inhabitants who did not settle permanently in one place but they moved from one place to another depending on the results of their catch from fishing in the sea. Records from the navigators always

compared strategic places for fishing throughout the Pacific region without making a definitive map of the Melanesia, Micronesia and Polynesia or Australia (McCallum, 2004).

In connection with the discovery of the historical periodization of central locations of the Melanesian region, McCallum drew up a few figures which he called the list of the mission's main activities in the Oceanic region:

Year	Event
1668	Spanish Mission to 'Guam' (Ladrones, renamed Mariana;
1797	The first Tahiti Protestant
1804	(January 29) Apostolic Prefecture New Holland
1825	Apostolic Prefecture Sandwich Island (Hawaii) to Picpus Fathers
1830	(January 10) South Sea Islands Apostolic Prefecture
1833	(June 2) the Apostolic Vicariate of Eastern Oceania
1836	(January 10) the Apostolic Vicariate of Western Oceania
1842	(August 8) the Apostolic Vicariate of Central Oceania
1844	(July 16) the Apostolic Vicariate of Melanesia and Micronesia (disconnected from yan Western Oceania)
1852	Vicariate of Melanesia and Micronesia transferred from Marist Fathers to PIM

The record of the Catholic Church is always remembered in a very special way, the works of Jules Dumont d'Urville before his death in 1834, which made ethnographic records about tribes in relation to the process of grouping the islands that can be distinguished from Polynesia and Micronesia. The grouping pattern was limited to inhabitants who were white, Polynesia and Micronesia, and black Melanesia, without going deeper to examine carefully the dynamics of ethnographic overview of the livelihood and life characteristic of the surrounding communities.

Understanding Origins

From the above description, it can be said, the initial concept of the European People about Melanesia emerged slowly from mapping the Pacific Region as a whole based solely on skin color. The thing that made the researchers pay attention to the Melanesian races were dramatic physical differences of different groups of people in the Pacific islands. Charles de Brosses' theory in 1756 said that 'the oldest black race' in the Pacific region was conquered by people of Polynesia, a race different from Melanesia. They were white. This suggests that Polynesian originates from the cultural transmission of further development of the

dynamics of Melanesia, that is a mixture of elements of the Negroid Race and Australasia Race (Fox, 2014).

Around 1825, Jean Baptiste Bory de Saint-Vincent made further attempts to elaborate by referring to the 15 general race models of the human races in the world. His findings are almost the same as the Melanesian population, also called Melanian, and can be distinguished from the Australia race and Neptunian, now called Polynesia. This describes Melanesia as a race that exists with their own cultural patterns, but still together with other races such as the Negroid, Asian (Mongoloid), and Australasian.

In 1832, Dumont D'Urville followed up the above descriptions and began to classify the inhabitants of Oceania into four major racial groups namely: Malaya(sia), Polynesia, Micronesia and Melanesia. Meanwhile, there were some who classified Australia into the race of Melanesia by including the Aboriginal people of Australia. Researchers mostly agreed that the starting point of the division of Melanesia was not based on geography, but only on physical distinction or specific cultural interests, or phenotype characteristics which later became known as races without actual genotype analysis. Melanesia came to be known as the 'home race of Oceania', and I think it is this latter idea that should be explored more carefully to understand the lives of the Melanesian People.

Generally, all tribes who inhabit Oceania - or in the context of our speech Melanesia are – black-skinned, a ripe sapodilla color and a bit dark, with curly and wavy hair, small noses, who actively hunt, have fine hair, wide mouths, and are somewhat different from the white population with typical social behavior. European researchers identify Melanesia not only from the perspective of cultural and racial or geographic group understanding but also as groups of people that can be identified from a variety of perspectives.

Although there are some researchers who hold on to the erroneous claim that emerged in the 19th century, the difference boiled down to a very significant opinion regarding the map of Melanesia. Some experts claim that Papua New Guinea and Indonesian Papua do not belong to the Melanesian groups. In the 20th century, the claims from the previous century were challenged and eastern Indonesia, including islands of Nusa Tenggara (NTT and NTB) but not Bali were included in Melanesia. The findings made in the 20th century are based more on the analysis of the findings/discoveries from around the 16th century to 19th century, about the origin of Melanesia. There are two things: (1) Melanesian cultural transmission and the neighboring races, and (2) language transmission, in particular of the languages of Proto-Austronesian.

It is not easy to identify Melanesia qua Melanesia, based on geographical, cultural, biological, and other basic elements appropriately. In the future, there should be a thorough and complete study of the elements that have contributed to the concept of Melanesian involving seven elements and three cultural aspects. Many Melanesian countries are former French colonies, with the exception of Indonesian Papua and Indonesia, which was colonized by the Dutch.

With regard to the seven elements and three cultural aspects, the following four should be looked at in more detail. The first one is the reality of the language within the scope of the ethno-linguistic to make a comparative analysis to prove the existence of 'integrity' of the Proto-Austronesian family. Second, from the traditions of the local community, there has been a network of a common origin of collective local memory of the speakers of the Proto-Austronesia family. The third is the social life of the community in relation to the dimensions of kinship and a variety of day-to-day social order in the community. The fourth is the life of religion and art that can be studied by experts in the anthropology of religion. These four factors will give a better, more precise, careful and reasonable understanding of Melanesian anthropology.

In the historical records, the population of Australia and Papua New Guinea have been viewed as an integral part of Melanesia, which emerged in the period from 50,000 to 30,000 years ago. The origin of the inhabitants of Australia and Papua New Guinea are similar to that of the ancestors of the present day Papuans. The population spread throughout the Southeast Asian region, where indigenous tribes inhabiting the islands of the eastern part including the Solomon Islands, Makira and possibly the small islands in the eastern part.

Austronesian Anthropological Linguistics

Historians consider that about 3,000 years ago the Australian population migrated to northern Papua New Guinea and the southeastern part of the same region. The Austronesian language family also called Malayo-Polynesian includes languages in the area of Malaysia, Indonesia, Philippines, Vietnam, Cambodia, Taiwan and Formosa, as will be seen later in the chapter. There is a diversification in languages, cultures between groups of peoples, but with an emphasis on the unity between Melanesia and Polynesia. Austronesian languages are used in areas of Southeast Asia and Asia-Pacific based on the theory of the Proto-Austronesian language family. The group consists of (1) Western Austronesian which includes languages in NTT, NTB, Bali, Sumatra, Kalimantan, Sulawesi, Raja Ampat, the Bird's Head, Taiwan, Formosa, the Philippines and Madagascar; (2) Eastern

Austronesian (Oceania): Melanesia [Papua, Solomon Island, Fiji, Tonga, Vanuwatu, New Caledonia], Polynesia [New Zealand, Tahiti and Hawaii], Micronesia [Pacific Region]. These divisions have been challenged. Hopefully there will be many ethnographic studies and the first reflection of oral tradition can contribute significantly to both schools of thoughts .

At least there are two findings. First, proto-Austronesian is divided into (1) Proto-Western Austronesian and Proto-Oceania; Proto-Western Austronesian is divided further into two, (i) Proto-Eastern Indonesia and (ii) Proto-Hesperonesian. Proto-Hesperonesian is divided into two (a) Proto-Western Indonesia and (b) the proto-Northern Indonesia. The former ones have turned into the languages of Malaysia, Sumatra, south Kalimantan, Madagascar, and some languages in Vietnam. The latter includes Formosa and the languages of the Philippines, Sulawesi, and Kalimantan.

Secondly, there are theories and findings with simpler structure of division which states that the primary Proto-Austronesian is divided into 6 branches of language families: (1) Atayalic or Formosa, (2) Hesperonesian, outside Ayalic, (3), (4) and (5) the languages of Eastern Indonesian and Papua, and (6) Proto-Oceania. This work is done by linguists. Our job is to see the collective memory network of Oceania's people in the dimension of anthropology, which has bridged the population with different languages from generation to generation. For hundreds of years, travellers arriving in this region tried to make specific descriptions of the behavior of the people in the region.

One possibility that cannot be disputed is that in addition to the cultural transmission in general because of resettlement of people from one area to another area, the important dimensions in the frame 'human culture' have also moved and definitely changed according to the context where people live and move. In particular, language transmission, which takes into account the dynamics of cultural transmission in general, determines the cultural context where the inhabitants of Melanesia live. In the framework of anthropology, with reflection, a primary understanding of Oceania has been gained from the insight of the races found in Melanesia, which will be discussed in the following description.

The results of genetic studies in the 21st century were challenging when they revealed that there is a strong link between the peoples of Taiwan, Aboriginal ancestral Melanesia, Polynesia and Micronesia. There is a finding indicating the migration of early generations when sailors or fishermen from mainland Asia ventured to Micronesia, and passed through Melanesia toward East Asia and moved towards various parts of the Pacific as far as America. The accounts from these trips can provide proof of the integrity of the

peoples in the regions, which have been named by Europeans without paying attention to the similarities of their origins based on language perspective (Fox, 1997a, 2011).

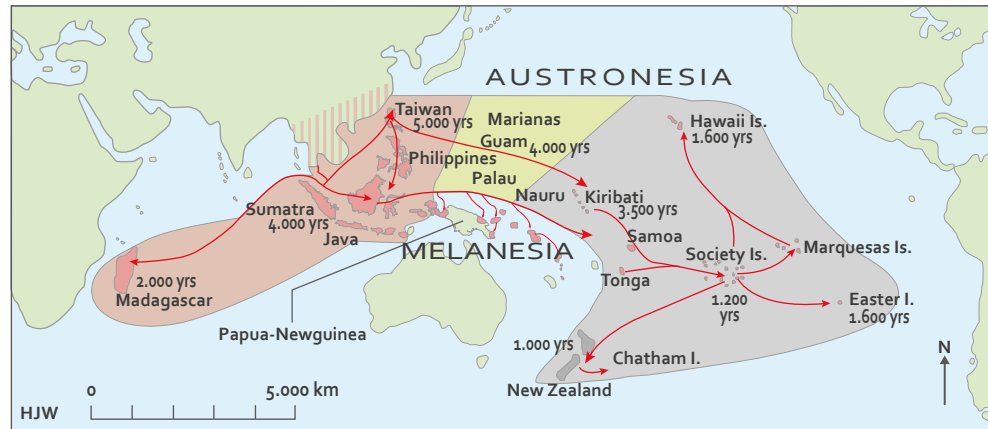
The Melanesian languages exist alongside of the Austronesian language family (Proto-Austronesian), subgroup of Malayo-Polynesian languages. So far, more than 1,319 languages have been identified. Within the scope of a Proto-Austronesian language family, Melanesian is known as a network of races that covers the Pacific region, the Bismarck Archipelago, the Solomon Islands, and Santa Cruz Islands, Vanuatu, the New Hebrides Islands, and New Caledonia.

Grimes et al. (1997) studied the languages of East Nusa Tenggara to identify the people's origins by pinpointing the origins of their languages. In Language Overview it describes a meeting place providing 'language data' of the changes and development of the travel dynamics of Austronesian languages in general. The phenomenon mentioned in the article has to do with the constructive relationship between the Austronesian languages in relation to the major language family which shows the origin of the language subgroups to the level of dialects.

Likewise, a major language family, initially known as 'Proto Austronesian' (PA) from which linguistic term Proto-Malayo-Polynesian (PMP) was derived, is claimed to be the ancestor of all language family subgroups believed to be the descendants of the same major language family. The ancestor of the Austronesian language is estimated to be in the southbound lanes of the Philippines and into the Indonesian archipelago and towards the south and towards to the Pacific. PMP is divided into two parts, (1) Western Malayo-Polynesian (WMP) which includes Sumbawa and (2) Central-Eastern Malayo-Polynesian (CEMP). CEMP is divided further into two (a) Central Malayo-Polynesian (CMP) which encompasses the languages of East Nusa Tenggara, East Timor, Maluku and Papua (Indonesia). (b) Eastern Malayo-Polynesian (EMP) which splits into two sub branches, (i) Halmahera and Papua New Guinea, and (ii) Oceania. See Bellwood (1985, 1995), Fox (1995), Pawley and Ross (1994), and Tryon (2006).

The findings of genetics, archeology, and linguistics indicate that the Polynesians came from Southeast Asia and Melanesia. The same study also applies to the Micronesians who came from the Asian mainland. However, there is still a different opinion regarding the genetic facts based on the study of various experts. In the perspective of livelihood such as 'ancestral sailors' which is the hallmark of Melanesia, the people in the islands regions, such as those in the Pacific Islands and the Indonesia Archipelago have long pursued that kind of livelihood.

The Migration Map of Proto-Austronesian language Ancestors.



Melanesian Oral Traditions

This part focuses on the networking part of the Melanesian population studied from the frame of oral tradition. The overview of the language aspects has provided meaning and significance of the memory which had disseminated by people embracing the Proto-Austronesian language family. The question is whether the people who are related in the context of language, are also related in a particular race?

Bellwood et al. (1995) say that many different people speak Austronesian languages, but does this linguistic fact explain the origins of the cultural and biological as well as the overall history of the same population? Moreover, Austronesian language speakers nowadays have different social behavior or appearance, not only as individuals, but also as nations. Relying only on appearance, anyone will have little trouble differentiating among a random mixture of the Austronesian-speaking people of Punan (Kalimantan), and Agta (Luzon), a native of Fiji and Tahiti. Similarly, the case is also true for the groups of people around the Punan forest, the Muslim Malay population of urban areas in Kuala Lumpur, and the inhabitants of Coral Island of Micronesia. All attest to similarities in terms of social, economic, and religious aspects. Culture and physical appearance have been used as an indicator of ethnic identity in modern society, but this is weak and crude. Even casual observation on society in today's world would leave little doubt that in general, people, or most of them, can get married with people from different biological and cultural backgrounds, and change their languages, or even adopt the culture and lifestyle when the situation allows (Bellwood et al., 1995).

Oral Tradition: Early Records

Oral tradition is the door to understanding a picture of the actual condition of the life of traditional communities. In addition, oral traditions can serve as a bridge to getting a complete picture of the networks of Southeast Asia's population on one hand, and their relations with the Pacific and Madagascar regions on the other. It is not easy to put together a complete paper about local wisdom. In addition to difficulty of finding accurate data about it, it is also difficult to get the 'drive' to travel back in time to the ruins of past lives and write a record about them. Looking into the past to find local wisdom is not easy either; local wisdom has varied contexts or backgrounds. The same local wisdom, in addition to occupying the space and time at a certain time in the 'past' (considered as 'traditional'), can also be found globally on the sidelines of day-to-day human activities. So existentially, local wisdom has always been part of the people and inspired them in the midst of multi-dimensional changes.

In relation to positioning the Melanesians in the discourse of Indonesia, oral tradition is, in fact, a very important medium. It is from tales and stories, folklore, mythology, legend and exposition 'as is' of local wisdom and oral traditions, 'the thread of life' is interwoven and forms an integral understanding of the context of life and the history of the people in the past. Therefore, it is necessary to first have a correct understanding of the function of oral tradition in the course of history, which then can be studied more carefully to trace back the life of the Melanesians.

On the sidelines of oral tradition, 'local wisdom' can be identified, which, in turn, can open a window of understanding about human identity. People throughout the ages have always expressed themselves, including oral tradition. The crystallization of local wisdom mapped out in oral tradition creates a spark in people's lives, which applies to both the pattern of community life in the past, at present, and even in the future. Local wisdom never exists in a vacuum, in the sense that local wisdom is always inherent in the context of limited scope and real life. Conceptually, local wisdom, which here is called 'oral tradition', is a spark of people's life (read: Melanesia) to appreciate humanistic values of life that can be found in the history of human life. The paradigm of communal life, also all matters regarding personal life and even the various issues surrounding the environment (ecology), are all beautifully crystallized in the language of oral traditions.

Vansina (1965) laid the foundation for understanding the nature of the oral tradition that belongs to world citizens. In a sense, the oral tradition is a common phenomenon in the dynamics of change and development of human personal life, which gives a special

color to the people's 'cultural dynamics'. The understanding of oral traditions can be traced back to the dynamics of people's life in their society. The Melanesian context, which serves as the basis of the analysis of the function of 'oral tradition' in this paper, first, is the area of Nusa Tenggara Timur (Fox, 2014) (Timor, Flores, Sumba, Alor and Rote-Sabu); second, the domain of Timor Leste (McWilliam, 2002); third, one to two tribes in Papua (Van Baal, 1987); and fourth, the Pacific region (Sullivan, 2002, 2004). Before going deeper to look into the social reality that is mediated by oral tradition, it is important to clarify the strategies of the study, commonly called 'ethics' and 'emics' in the way we look at it. Second, the way we study the knowledge and science is the basis or classic strategy to dissect the findings of science in various reflection strategies. At the level of history, and not just the history of Melanesia, for example, patterns of ethic are mostly applied since historians are always tied to the various documents and theories to reveal ongoing history. The essence of the emic patterns lies in the effort to work seriously in order to go deeper into the mindset of a traditional society (Bellwood et al., 1995).

The essence of the commitment of a trip to the heart of the people's mindset is an attempt to collect the data first, so that it can easily be elaborated, and can also be assembled and packed until it finally reaches the scientific findings on the core of a quest. The disclosure of the first data and the second data can be seen in the encounter of the researchers with the capacity of any informant relating to the core of information that will be recorded. It often happens that the materials recorded are peripheral things that do not relate to main materials of a reliable study.

The search of the researchers to collect points of local wisdom sometimes fails because of the limited ability to get to the heart of the meaning of expressions that have been recorded. The researchers' foresight is crucial to sort out the pieces of the oral tradition that can be categorized as 'local wisdom', and which are just peripheral things and not included in the core of understanding. The foresight that should be possessed besides intellectual ability is also the feeling of knowledge to go deeper into the nature of the oral tradition. Although in each study social sciences and in this case the study of anthropology, all the data is often considered to be important and useful for the analysis to reach the conclusions.

In Melanesia, there are many oral traditions. Whether they deal with the narrative pattern of daily life or special things like celebrations of the religious-spiritual, it turns out that everything is packed from various human encounters in society. A researcher (especially of anthropology), must spend a rather long time at a particular location to

uncover oral traditions. Long periods of time often lead to interesting and meaningful encounters, because that is where the concepts of local wisdom are structured within the framework of the ecology. For example spiritual poems used by traditional communities at certain moments, commonly expressed in strains of prayers full of calm in traditional houses, in the shade of a banyan tree, or the curve of rock and in other strategic places (Fox, 1999, Kruyt, 1923, Middelkoop, 1960, 1963, Schulte-Nordholt, 1971, 1980, Van Baal, 1987, Zondervan, 1888) (Lechovic, 1966, 1971, Manehat and Neonbasu, 1990, Neonbasu, 2002, 2005).

Oral Tradition and Timorese Society

The following is a reflection on one of the Melanesian regions that is a traditional community of Timor to study its oral traditions which contains a variety of written sources on the island of Timor (both the western and eastern parts) plus Rote and Sabu (Sherlock, 1980). Many of these sources contain information on the researchers who have collected data and written about the island of Timor. From the beginning of the 16th century until the mid-20th century, the process of the first data or materials collection to study and reflect on the area of the island of Timor in a spectacular way took place. The materials contain, in addition to geological-physical nature, anthropologically historical exposure and analytical-methodical studies.

Schulte-Nordholt (1980) has provided input on oral traditions. However, certain senses should actually be looked into more closely to clarify some of the data in the paper (Usfinit, 2003). Sources which form the basis of Nordholt's paper, in addition to written documents, also include aspects of heritage and tradition of traditional societies, which is used as a specific approach to find Timorese local wisdom. Ethic fathers have dominated the study and reflection of Schulte Nordholt.

There are two phenomena in the image of a traditional society that is the disclosure of paradigms of life and study of the dynamics of togetherness. Traditional societies show a simple strategy of ordinary life as it is without involving complicated technological resources. Their lives are not a patchwork, and they always rely on the solidarity not involving technology. Oral tradition formulates all this in a beautiful and captivating packaging, depicting the root of life of local communities. It seems that at the peak of oral traditions, various meanings and values upheld in society can be inherited. The pattern of inheritance is certainly in tune with the strategies to pass on the values as the dynamics of 'ladder of life' in the context of a particular community. Laws and rules and regulations of

the closeness of the community are very much appreciated, and they maintain the basic structure of the original life because life is always appreciated in a synergistic climate in the ecological principle.

The perspective of traditional community life has always been rated highly in the writing of 'relational closeness' (functional-constructive) on the principle of macrocosm and microcosm of life dynamics. The basic principle of doublets or the speaking in pairs pattern (Fox, 1988) has always been a 'starting point' for researchers in the field of linguistics in Melanesia region (especially for those speaking Austronesian language) for inspiration on the variant and language variants of the people. Thus, the construction of thought prevalent in Timor has been revealed in the same pattern and formula although it might have been elaborated with a substantially variety of different terms. For example, the terms *feto // mone* (sisters // brothers, siblings) are commonly known. This expression is a term of 'the dynamics of social life' in the paradigm of language, which is focused on understanding the power of human intellect to describe the relationship between personal kinship with each other in a bond of togetherness. More universally, the same term is used metaphysically to study all closeness construction and its symbiotic influence within the framework of all living things on earth and the afterlife.

So far there has been a connection between all beings, whether merely functional-constructive, or even more in the symbiotic constitutive rankings, hence the term and the pattern of 'pairs' or 'lexical doublets' is used to describe the dynamics of life that exists in it. The picture of cultured human beings in the frame of local wisdom which is very rich in the natural thinking of traditional societies can never be separated from oral traditions. In addition to the terms *feto // mone*, other classical 'to speak in pairs' patterns are also known such as: *luar // dalam* (*in // out*), *kuat // lemah* (*strong // weak*), *atas // bawah* (*up // down*), and so forth that are phenomena in Melanesian society. In the frame of anthropological linguistics, the 'to speak in pairs' pattern, which in addition to functioning as a 'strategy and style of speaking' of Proto-Austronesia language family in general, is also a literary phenomenon that is typically used for elaborating the community's understanding of cultural treasures in the history of human life. This is one of the basic principles of a combination of human life and the environment, which is directly focused on complementarity characteristics among all beings.

The traditional Melanesian population is derived from the term Malayo-Polynesian generally, and specifically Timor has a rich constructive culture to describe the dynamics of

togetherness in the sketch 'to speak in pairs' (which can be either twos, fours, or a multiple with the base numbers two and four). A model of its description aims to appreciate the harmonious wholeness in manners of 'human life', which is impossible to achieve without families. Togetherness always requires a collection of peoples or tribes. Thus the idea of togetherness is something that is absolute (*conditio sine qua non*), which in addition to its existence as one of the essential element of a social entity (physical), also internally gives a dignified stature to the image of human togetherness. The phenomenon of togetherness is something beautiful, in addition to the personal interests of human subjects, it is also a primary factor that helped shape the networks of the 'cultured human image' in the manners of life with one another; others, the universe, the ancestors and the Divine One.

Oral Tradition as a Bridge of Meanings

In anthropological linguistics, to speak in pairs applies not only to people of Melanesia, but also to all speakers of the Austronesian language family, and this is even more widely used by speakers of Micronesia, Polynesia, and even more by the nations around the world. The summit and the purpose of 'speaking in pairs' is to facilitate the process of meaning or dynamics to give values to certain encounters (Fox, 1988, 2014).

A very anthropological description regarding human closeness to the universe has always been based on the belief of individual human being as an integral part of the universe; human being is the microcosm and the universe is the macrocosm. Fox (personal communication, 2002-2003), describes the two terms as two complementary dimensions of describing the networks of traditional social community.

The meaning of the terms macrocosm and microcosm, encompasses the following five types of relationship encounters. First, the relation between human beings and nature with the human being as the microcosm and the universe as macrocosm. Second, the encounter between human beings and the Divine One with human beings as the microcosm and the Divine One as the macrocosm. Third, the network between the ancestors and human beings; human beings are categorized as the microcosm and the ancestors as macrocosm. Fourth, the relationship between human beings and the context of finite life; human beings are known as the macrocosm, and the finite context referred to as the microcosm. Fifth, the relation between the problems that exist in human beings as the subject (text): and the nature of thought of human beings; here, the former is called the microcosm and the latter macrocosm.

From the various forms of oral tradition, human activities on the separation of certain time and space, in addition to describing the social reality of the human's response to particular meanings also have relevance to aspects of human life. Between the human activities of one person and another one, there is always a strong bond which describes the meaning and value of human wholeness. Oral traditions make life and work of man the centrum of the study of interesting thoughts and words. On the sidelines of the exposure of the oral tradition, human action for a specific purpose is always visible, which in essence has never been disassociated with the various dimensions of the activities in community life. The same oral tradition is a form of human's appreciation of (including craving and desire) a 'constellation of networks' reality which is own by every virtuous human being as the 'image of cultured persona' in social life manners.

Understanding Oral Traditions and Myths

We are taking a more in-depth look into the context of Melanesian Society, to get insights from oral tradition. With regard to a particular study in the context of the island of Timor, Schulte-Nordholt (1971, 1980) has successfully mapped out the findings of the sparks of local wisdom which have long been inscribed on the walls of the historical society. There have been obstructions in almost all places, the lack of human knowledge of the language, would surely reduce understanding of the cultural wealth of society in its entirety. Thus, the language is regarded as a very useful gateway for any researcher to go more deeply in his or her search for the secrets of the image of cultured human beings locked in the strains of local wisdom.

In the same context of Melanesia, Van Baal (1987) reflected on the constructive relations between the myths, fairy tales, folktales, which, in my opinion, can be packaged in the discourse of oral tradition. Myth, he states, is very important at all levels of human life in their relation from one to another. Van Baal has come up with three strategies to make sense of myths. First, a myth is an allegory composed by poets featuring a struggle between the elements or symbols of varieties of talent and of human nature such as reasoning, ignorance, love and others. Second, a myth is a story about kings with great power and high wisdom, who lived in ancient times, and then deified by their posterity. Third, a myth is the result of fraud created by priests and kings, to attain a position of power for themselves so that they can control the masses (Van Baal, 1987).

Various studies of myth and mythology often underestimate the mindset of local people about spiritual phenomenon. Therefore, van Baal has gone into detail to find the meaning

behind myth by referring to the dictionary that actually puts the myth as a tradition from prehistoric times, which is usually associated with a god or a power of nature personified in a particular context. Such an explanation is then weakened, 'myths' often being a story that does not contain the truth (logical) but is treated as true. In terms of anthropology, the dictionary meaning above is irrelevant because the researchers of anthropology also go deeper into groups of people who believe myth as truth, and especially religious truth. In this perspective, myth is an integral part of a living belief among a number of nations (Van Baal, 1987).

Both the Marind-Anim People in Papua, and Biboki People in Timor and Mambai People in East Timor, have always carefully shown magical respect when they are telling the myths passed down from generation to generation. Therefore, the issue that must be taken seriously, with regard to 'presentation of myth', is that the story is often not sufficiently understood by 'outsiders' (new comers) who do not understand the social context of the myth when it was recorded. Moreover, there are a lot of the same myths using local languages (local terms) that are difficult to understand because of using terms whose meanings are not easily captured and understood. When asked 'why it should be presented in a language that is not very clear'. The answer is that it has been like that from the past, and we do not have the authority to recite it differently from the way we inherited it. An agreement among experts on myths was reached, and then a formulation emerged stating that a story within the framework of the system is something religious in the past or in the present and it used to be or is still valid as a religious truth (Neonbasu, 2011a).

There are a thousand and one 'local wisdoms' in Melanesian societies that can be studied from oral tradition, especially to write history or to enhance the personal dignity of the society. Although in reality, oral tradition is not the only material to write the history of an area with higher accuracy. Similar oral traditions in certain aspects has proven to be a means to unveil the history of an area. Yet in reality, it has to be admitted that many people often disregard oral traditions. The reason for 'the authority' or 'the power of oral tradition' to uncover a history is often questioned. It is due to the system of oral inheritance by word of mouth (without any written accounts or records) and also the absence of a law to support the authority inheritance system (Hägerdal, 2012, Neonbasu, 2011a, Nongkas and Tivinarlik, 2004, Vansina, 1965). Behind the curtain of oral tradition lies local wisdom, which can be used as a starting point to write something carefully (Danandjaja, 1994, Fox, 1988, Gossen, 1974, Neonbasu, 2011a, Rosaldo, 1980, Schulte-Nordholt, 1971, Vansina, 1965).

There are many phrases or expressions that describe the view of the Melanesian people inherent in the governance of people's day-to-day life. For example, we have the Timorese pattern of farm life like farming and handling activities in the fields. This has always been the dominant factor affecting the system and strategies of spoken languages of local communities, which automatically affects oral traditions (Evans-Pritchard, 1940, 1956, Kottak, 1999). People in Vanuatu society and Melanesian people and other inhabitants who live near the coastlines rely on 'fishing' for their livelihood, which always inspires their oral tradition. Here, a compendium of the oral traditions of research results in some regions of Melanesia discovering ten functions of oral tradition (Neonbasu, 2007, 2008, 2010, 2011a).

First, oral tradition reveals the history of the past to formulate something that has happened; the monumental events that have long passed. People highly appreciate all that has passed, especially with regard to matters of heritage and tradition, because there is the flow of life in it, which is considered very high. Maybrat, Imiam, and Sawiat in West Papua appreciate the oral tradition because the stories passed on remind the people of *wiyon // wolfe*, as an expression showing 'the almighty' which has guided the traditional society to an eternal life. On various occasions during the rites, oral tradition is the mainstay to describe the atmosphere of the past, through which people can seek the wisdom to improve their characters in life. Local people's perspectives always link the past with the present, with emphasis on the thought of 'the present', which is an extension of everything that ever happened in the past. Moreover, social behavior of listening to the story about the past is a commendable thing for everyone in the village (Neonbasu, 2011a, Sagrim, 2013, Vansina, 1965).

Second, oral tradition often gives an overview of the journey of certain tribes, families or specific individuals. Stories are always a form of speakers' elaboration to show all kinds of lives played by certain subjects. West Papuans give special respect to the oral tradition because the stories describe the characters of community groups on the one hand and the authority of certain institutions on the other. In relation to it, then the Raja Ampat area known generally by the People of Kawe, Maya, Matbat, Moi and Beser as the ultimate authority. The tribes of Iha, Onin, and Mbaham embrace authority in the Peninsula area of Oin (Fakfak), and then for the area of Kaimana and Bintuni, authority is held by the tribes of Kowiai, Irarutu, Mairasi, Buruai, Kamberau and Kamoro. The area of Moskona is ruled by the following tribes Ogoney, Yerkohok, Ibori, Orocomna, Asmorom, Ijehido, Masokoda, Ortua, Jets and Igomu. Oral tradition generally explains the identity of certain ethnic groups or groups of people.

Traditional Melanesian societies have the intelligence to tell the strength of certain names in the story and narrative explanation. Of course the emphasis is on tracing back the journey of people or tribes, crossing mountains and hills in a variety of living conditions. Stories and narratives regarding personal or tribal life, often highlight one aspect of life that is superior (Neonbasu, 2009a, b), (Andreas Jefri Deda c.s. 2013, interview with people of Moskona ['Zefnad Ogoney']).

Third, oral tradition unravels relationships between tribes in a social fabric. As seen here, the second function is expanded and explained further in the third, with emphasis on the identification process culminating in the insight of the role of oral tradition. Stories and narratives created, in addition to introducing individuals and tribal groups, describe the content of the network of social relations in connection with something unique and privileges of a certain figure. Often, when describing intercommunication of familial relationships, the stories portray authorities and obligations of one tribe to another. The classical description always uses 'social status' based on the analysis of 'wife giving group' and 'wife taking group', which then pinpoint the rights and obligations of each group.

Fourth, oral tradition explains the division of tasks, though very basic, but neat and well-disciplined. Stories and narratives often reveal the role of family members: fathers, mothers, and children in the paradigm of family ties. The division of roles and tasks within the framework of family life has always the dimension of unity and integrity. This means, the focal point is not the differences in space and involvement in certain activities, but a fact of life of having 'different functions', but always aim for, and for the sake of 'maintaining harmonization'. An ancient division or distribution of tasks is based on 'differentiation' between men and women. The map and manners of the division is known generally in the qualification of 'binary opposition' with pair style: vulnerable groups // powerful groups, activities inside the house // activities outside the house, active // passive, top // down, left // right, bright // dark, heavens // earth, mother // father, front // rear, woman // man, visible // invisible, little // much and a variety of other dualistic categories.

Fifth, oral tradition reveals the content and meaning of any political structures in society. The role and function of each tribe to maintain harmony in life together is always emphasized many times in the presentation of stories and narratives. There has never been a case in which the persons or the tribes mentioned in oral tradition work only for themselves. Meanwhile, on the sidelines of the oral tradition, it can be seen that 'the pattern of traditional politics' does not put emphasis on giving oration - or campaigning - but rather

on the 'natural strategy' to continue to maintain good relations among people, including 'internal relations among tribes' within the network of local 'construction kingdom'. Stories and narratives present 'roles' and 'function' directly attached to the identity of every ethnic and community groups to maintain the atmosphere of living together.

Sixth, oral tradition dwells on the attempts to explain the structural relationship between friends and foes. Often, the stories and the narratives feature rival or opposition (certain groups) and with that they also feature filial relations of tribes associated as a partner to create and build harmony in life. The perspective used to describe the roles and functions of friends and foes is shown as tireless effort in various local struggles to fight for certain boundary. The boundary is always important to the members of warring tribal groups, because it is closely related to pride. The content of the description of 'something' they are fighting for is often unclear. However, the 'vague part' is placed in the context of the past. Even though the reason for the war is not really logical, that is what drives them to struggle, for example the war to seize a hill which later turned out to be unreliable or worthless from the economic aspect.

Seventh, oral tradition describes a panorama of the universe or its ecology by placing man at the center. It is difficult to separate the position of man from nature and everything in it. Nature cannot function alone without the involvement of the people in it, and the meaning and significance on the nature can only be properly appreciated by humans. Stories and narratives of the past always mention the role of humans in the wider ecological frame. The community often personifies the ecology to demonstrate that, without humans, the universe loses its meaning and significance. Melanesian societies believe that the universe with its ecological wealth is always meaningful because of the people who use it for the benefit of human life. Since the beginning of life, stories of mythology and various natural events have involved people or the first man, whose role and function as the controller of the wheel of life in the universe.

Eighth, oral tradition reveals the nature of human thought, or what is known as people's mindset. Although they are simple and rudimentary, stories and narratives of Melanesian society always refer to the thinking of traditional people about all aspects of life in all forms of the crowd. The people have stories and narratives about 'their ancestors', having certain experiences. They describe an understanding, and how much they use means and tools to make the concepts of life. Concepts of life, in addition to a focus on the present, focus on the past, and they are even highly prospective, assessing the future carefully. However, the nature of thoughts contained in the stories and narratives is often still hazy and not clear.

Ninth, oral tradition contains the 'philosophy of the indigenous people', namely how people think (by using traditional logic) in a finite space and time. Many oral traditions contain natural truths with regard to living together. Although the pattern of oral tradition presentation is simple, the people use it as a guide to find something bigger and more accurate (although very pragmatic), in a dynamic environment increasingly becoming dignified. Moreover, the content of the oral tradition is also associated with ontology, epistemology and axiology of various local wisdoms. However, admittedly, it is sometimes difficult to assess this ninth aspect because the stories and narratives have expanded beyond their original structure, and many of them cannot be correctly and thoroughly identified.

Tenth, oral tradition contains 'religiosity of the indigenous people' or traditional religion in the local context. Behind the stories and narratives, the nature of Melanesian beliefs can be studied. Various myths and mythology always make vague references to the Divine One, which should never be referred to using 'real' phrases or in a blunt manner. Mentioning the name of the Divine One is something unlawful. Traditional societies of Timor even argue that mentioning the name of the Divine One is synonymous with 'cutting oneself' or death. For further works on the ten aspects of oral traditions, see (Danandjaja, 1994, Dundes, 1965, Finnegan, 1992, Fox, 1977, 1988, 1995, 1997b, Neonbasu, 2009c, 2011b, 2013, Parera and Neonbasu, 1994, Vansina, 1965). For works which seek to counter the description of traditional societies as 'primitive', see, for example Neonbasu (2009b) and Nuban Timo (2012).

The ten formulas above trace back the functions of 'oral tradition' which in essence identify the perceptions of Melanesian Society 'identity' with regard to the individual, society, universe, as well as ancestors and the Divine One. In the framework of the traditional strategy of civilized society, this very human identity can be categorized as a social fact that must be appreciated in a variety of human activities each day. The refraction of oral tradition is associated with depictions of the human image at the level of time and space to inspire certain human activities to establish themselves and the environment to become more meaningful.

Oral Tradition: Identity, and Harmony

There are a variety of local wisdoms which refer to the notion 'continual effort' to improve the 'identity' of personal and community lives. Melanesians' efforts to develop a more meaningful life have always centered on a high respect for the dimension of identity and conscience. This phenomenon has been crystallized in thousands local wisdom, contained in the sidelines of the oral tradition.

Behind the curtain of local wisdom, the efforts of the society to maintain a harmonious atmosphere has always been beautifully formulated, both (1) horizontally between community members or ethnic groups from one to another, and (2) vertically, between the upper structures (leaders) commonly referred to as supra-ordination and ordinary people (ordination). With regard to a harmonious relationship in the vertical frame, it has always been emphasized; the one in power is not a 'leader' who uses the authorities at will, but puts the interests of those people who entrust their rights and sovereignty to him or her. Leaders have always been synonymous with elders who are seen as the main institution that play an important role in bridging the people (the world) and the Divine One. In Melanesian society, the king is seen as a social organ to whom the 'rights' and 'obligations' of ordinary community members are entrusted to serve the interests of the people in the perspective of creating harmonization.

The essence of harmonious life in relation to the dimension of 'power', has always been understood as 'service tasks' carried out by a trustworthy person (a king or chieftain), whose responsibility is to fulfill the rights and obligations of the community members honestly and sincerely. In the traditional society of Merdey, part of a larger group of Moskona (Teluk Bintuni District, West Papua Province), it rarely occurs in the course of history that a king or chieftain carries out his duties for the sake of his own interests. It could happen, and 'chaos' would be the price to pay. Life would turn into mayhem; havoc and resistance (war) would be the ultimate price (Neonbasu, 2011a, 2013).

In certain aspects, oral tradition is a contextual model of indigenous knowledge, which is attached to certain personal and community identity. The model of this basic knowledge has become the information basis for the society to facilitate communication and decision making process in order to build harmony. This basic knowledge is equally well suited for everyday needs because it is in touch with local conditions such as the physical situation, the natural environment, socio-cultural perspective, and personal image as long as the focal point of information is a way of life that the society has inherited from generation to generation. This knowledge is dynamic and always provides man with the knowledge to understand the external system and internal creativity (Nongkas and Tivinarlik, 2004).

Melanesian Religiosity

Melanesian societies have a spirituality that permeates the entire life cycle with a network of relationships between 'human beings with others' in a very natural. Timorese (and East Nusa Tenggara society in general) always say that what has been experienced by their

ancestors has always been passed down orally from generation to generation. The same thing can be found among the peoples of Ambon, Papua, Fiji and Papua New Guinea. The cornerstone of this understanding is built on the strength of spirituality inherited in Melanesia perspective.

The principle thing with respect to the oral tradition is spiritual life or spirituality. Oral traditions and spirituality are inseparable entities; both are an integral part of local wisdom, which is virtually always integrated to form the personality of the community. The two cannot be separated from the particular context, which in addition to inspiring the identity of individuals and communities, provide the basis for the creation of the dimension of harmonization (Neonbasu, 2011a, Schulte-Nordholt, 1971, Van Baal, 1987, Vansina, 1965).

Local communities of Arfak Mountains (West Papua) always associate the presence of custom homes with a central place to express patterns of belief in the Divine One in relation to oral tradition within the framework of the celebration of ritual customs since the time of their ancestors. Melanesian societies are born with the basic knowledge that they live and work in the spirit world. The Mythology of Joerat (Asmat) Community, for example, recognize three essential parts of life in the frame of 'realm of the spirit': (1) the world of Ow Capinmi or the real world, (2) the world of Dampu Ow Capinmi, a transit world of those who have died but they have not yet entered the world of eternal rest in heaven, and (3) the world of safar the eternal resting place, heaven (Neonbasu, 2011a, 2013, Sayekti, 2013, Warami, 2013). On the sidelines of Melanesian community life, people have a very strong stance to adhere to the so-called 'secular beliefs', such as the active role of man in the frame of power (social community), which has always been associated with human cultured strategy to build harmony.

Various humans' works every day have always been associated with the involvement of the Divine One. Everything that happened today is never separated from their relationship with the Holy One because the Divine's power is the bastion and foundation of human life. As explained in one of the functions of oral tradition of the Societies of Maybrat, Imian and Sawiat have a traditional beliefs of the concept of the almighty power named *wiyon // wolfe* which literally means the rays of glory and holiness. It is this very phrase that has become widely known by the local community as the terminus for referring to the Divine or the Holy One. The words *wiyon* (beam) and *wolfe* (holy) is then associated with the word 'glory', and then used as an anthropological terminology of the Melanesian Society in West Papua to uncover the absolute presence of the Divine One in all events experienced by human beings (Sagrim, 2013).

In the perspective of Atoin Meto in West Timor Indonesia, the terms *apinat // aklahat* are known; He who lights up and glows like embers. There are still thousands of terms in Austronesian perspective that reveals the strategy of Melanesian society's culture about the dimensions of the Divine One which are later appreciated in a variety of social rites. The most popular idea/thought contained in the hearts and minds of Melanesian society is the desire to always be close to the Divine One (rites) and a simultaneous search for various science and knowledge in the work and creativity of everyday life. This includes a relentless effort to maintain a harmonious relationship with the cosmos, others, and the ancestors.

The Mythology of the People of Abun in West Papua

"The People of Abun believe that they originate from cassowary (Damsor). It is said that in Tambrauw Mountains a child lived with his mother. One day, for whatever reason, the child killed his mother, the cassowary. Initially, the child built a house then he killed his mother, the cassowary. Then, the pieces of cassowary meat were divided according to the number of rooms - seven. In each room, one piece of cassowary meat was placed. One of those seven rooms was occupied by the child, which was located right on the king pole as the cornerstone of the foundation. One day, the child went for seven days, without anyone knowing where he went. Upon his return, the child found that he house had become crowded like an urban area. Various tribes occupied these rooms. The Abun Tribe occupied one of those rooms. Apparently, the meat that was placed in each room had turned into humans. From these events, various ethnic groups and different languages came into being in the world. Other ethnic groups left the room, then wandered over the whole world, while the child remained to occupy the room, and began to speak Abun then named the tribe Abun with the prefix Y" (Ronsumbre, 2013).

The mythology about the origin of people exists almost in all ethnic groups within the scope of the Melanesians, which is certainly in tune with the local conceptions attached to each context. The mythology above implies the relationships between human beings, the cosmos, the Divine One, the network with the spirit world, which was then passed on from generation to generation. The records found in the myths and mythology show that the Melanesians, in addition to trying to learn knowledge from the universe, also believe that the life that they lead is also a very important part, inseparable from the science and knowledge they are searching for.

Mythology above refers to 'structural reflection' on the nature of Melanesian society which is constantly integrating each concept in view of the world, in relation to the

society. This pattern of thinking is accompanied by a relationship with the ancestors in ritual practices.

Yali communities in the Central Highlands of Papua (Indonesia) have a pattern of cosmic dualistic thinking by emphasizing the polarization and the dichotomy between the terms *humli* and *tabui*. Both words literally mean cold (*humli*) and hot (*tabui*), which geographically can be interpreted as follows. The first one refers to the mountainous area with cold climates, and the second one points to low-lying areas with hot climate. Yali society has the ecosystem knowledge that is very neat with sketches of understanding linking between the real world and the concepts of life related to the Holy One (Sawaki and Walianggen, 2014).

Spirituality or religion and patterns of belief are parts of essential elements of the cultural system of Melanesia in general. In the life of the society, things related to the Divine One are seen as something inherent in the traditions and heritage that is attached to the culture. Therefore, to understand the religious dimension, there should be a process of understanding about social life and local culture. Society does not recognize the strict separation between the empirical and non-empirical, between the natural realm and the supernatural realm in cosmos (Nongkas and Tivinarlik, 2004).

Spiritual movement to further explore the universe and its wealth happens in networks of belief in the interference of the Holy One in the whole totality of the community in relation to spirits, forests, mountains, rivers, birds, animals and all that is contained in the universe. Traditional religion for the community is a bridge to find the root of human life. Melanesian spirituality has emerged from the experience of the people who inhabit the region since time immemorial. It can be seen very clearly in people's lives; there is no dichotomy in their treatment between 'sacred' and 'profane' matters, religion and non-religion, the visible and non-visible ones.

The religious perspective always focuses on 'every encounter' of a man with another man (neighbors, nature, ancestors including the Divine One) in the course of the history of everyday life. People are the key elements and embrace the highest value in the culture because in this society all encounters can be appreciated contextually. The existence of the community has always been on the ideals and efforts to support and care for the value of life. For a cause that is noble and in the integrity of the cosmos thinking, oftentimes, the interests and needs of an individual are ignored due to society's needs which are highly preferred.

To maintain harmonization in relation to religion or spirituality, Melanesian societies rely on ritual celebrations. In certain aspects, the rites are appreciated not only as a means

to enter the supernatural realm, but also as a tool to address all the events of each day. The sources and references of all science and knowledge are the rites, and Melanesians never avoid the various ritual celebration in their whole life, since the time they came 'out of the womb' (born) and the time they return to the womb of the earth (dead).

Since human beings are an integral part of the cosmos, the rites are also performed to ensure the permanent creation of 'harmony'. In a sense when there is a wide range of disharmony, whether the conflicts and fights between people or a variety of damage in connection with the universe and the ancestors (as well as the Divine One), the rites can be a mediation to repair the damaged networks.

Conclusion

Here are some key points regarding the efforts to weave the networks of collective memory to map out a reflection of the anthropology of Melanesia. Stories and narratives crystallized in the oral tradition are very important mainstay to review our understanding of the existence of Melanesia. The next step that should be taken is to continue the 'exploration' to reassess the idea of Melanesia in the oral tradition and the cultural heritage of local communities.

Various findings, in addition to anthropology, as well as archaeological, linguistic ethno-genesis and the results of the reflection from various fields of science about Melanesian societies should be reviewed together, to realign our understanding so that it will be correct and appropriate with respect to *das Sein* and *das sollen* with regard to the existence of Melanesia in the international arena. The contemporary understanding of the Melanesian term is still based on the 'old experience' of the explorers from around 16-19 century. The findings accompanied by various global pictures and description of cultural identity, must be equipped with the study of oral tradition to open the curtain of the past life of the Community of Melanesia.

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CHAPTER 9

Gregorius Neonbasu

Searching for the Essence of Melanesia: History, Culture, Ecology and Spirituality

Indonesian History in Melanesian Imagery

Different from the previous chapter, what will be discussed here is the history behind the shadow of the Melanesian imagery. The main point of this writing is a discourse in the history of the Indonesian people during the era of kingdoms, which were the socio-political communities before the independence of Indonesia. The key is to avoid explaining it in a numeric system, rather going to the most significant events, which are messages in the form of humanistic nuances from the important people in the history of Indonesia which have something to do with Melanesia.

There are three fundamental things in the historical exposition of Indonesian people's lives, especially in the frame of the Melanesian people. First is the meaning of unity of the groups of people in the royal communities. Second, the meaning of humanity always becomes the spearhead of the struggle and fight of all the people living in the kingdoms. Third, the meaning of wealth of prosperity as the goal people strive for in order to retain the strategy of life and the stability of the system and order of the kingdoms. These elements of genuineness can be seen in the cultural heritage and local wisdom Indonesian people have, including the people in Pacific who are incorporated into the Melanesian Spearhead Group (MSG), and even in Micronesia and Polynesia.

The Meaning of Unity

Melanesian elements have been in Indonesian people before the name Indonesia came in the 1900s. To explain the meaning of unity, we need to review the 'backyard of life' that becomes the base of the formation of the kingdoms in Indonesia, who saw unity as the highest and the most sacred thing people need to pay attention to. Each old kingdom in Indonesia before independence in 1945 always fought for something dignified, something that has become life goal of the nation's ancestor, to live a peaceful life together.

A macro reflection is projected structurally to review deeper the basic idea of alliance by looking at several kingdoms as examples (Hägerdal, 2012). First was the Sriwijaya Kingdom

(from 600 to 1300), and the kingdoms that existed between the years of 732 and 1681. They were ancient Hindu Mataram from 732 to 928, the Isana Dynasty/Kadiri from 929 to 1182, Singhasari from 1222 to 1292, the Majapahit 1293 to 1518, and Islamic Mataram 1588 to 1681 (Massardi, 2014). Next was the cultural reality of the existence of the kingdoms, which could extend to the Tidore Kingdom from the 16th to 18th century that covered the larger part of the area of South Halmahera, Buru Island, Ambon, the islands on West Papua beach, the area under Tidore power, and the Micronesian and Polynesian areas.

Without unity there will not be an effort to discuss things within a group. Without an alliance there will not be a struggle to defend oneself in a particular group. The idea of unity is the thing that 'burns' the spirit of group of people and nations to fight together for something worthy, dignified, as sacred for them. As a physical sign of unification, a structure of living together is formed in a specific etiquette which is then formulated in a tridimensional function: ordinance, super ordinance, and sub ordinance. Local leaders appear who fight for unity and togetherness. The meaning of unity gives a sign to each member the idea of togetherness, which should not become a personal interest or an exclusive group.

Let us focus for a moment on the golden area of the Majapahit Kingdom and the book *Kakawin Desa Warnnana uthawi Nagara Krtagama* (Riana, 2009). This book is a very interesting literary work which can give new understanding on the life of Melanesian race in the context of the unity of the kingdoms before Indonesia was formed. Each kingdom has its own understanding on the meaning of integrity of the real existence of Melanesian race (Hägerdal, 2012). After the 16th and 17th century until the 20th century, Majapahit Kingdom has always been considered the pioneer in wandering to places, not only around Indonesia, but also to the Pacific area. Stories, tales, folklores, folktales, folk life, and any other kinds of oral traditions always tell about the influence of Majapahit Kingdom which kept fighting for the unification of ethnic groups.

Humanitarian Values

The story of the golden age of Majapahit was well depicted in the literary structure around the Trowulan area. The author saw it as the 'sun' in the daytime and the 'moon' at night. The sun was used as a metaphor to explain the brightness of the day, and the moon as sparks of light in the evening to explain, in terms of anthropology, Majapahit's greatness. Everybody always remembers Majapahit and how its greatness inspired people all over the world. A basic humanity underlined every effort to expand Majapahit's influence during



Left: Left: People from the Manggarai community in Flores Island, East Nusa Tenggara Province.

Nusantara's glorious time. Majapahit's fair name was not seen from a religious point of view, nor was it from the structural life of 'ordinate' or 'sub-ordinate,' but merely from the value of humanity Majapahit always referred to. Thus, in many folktales and stories that were spread in each ethnic group and area (especially those admitting having been under the Majapahit) always mentioned Majapahit's great name as 'humanity authority' which asked everyone and every community group to tolerate each other (Riana, 2009).

In the duration of time that was so long and winding, the underlying factors of Nusantara spread, with the influence from the oldest kingdoms, to all over Nusantara as well as beyond, including the Pacific. The soul of life and the perspective of humanity from the kingdoms during pre-Indonesia time were strongly established in people's lives in Nusantara and Pacific. This can be proved by the similarity of people who live in Indonesia, New Guinea, and the Pacific.

The Value of Prosperity

The meaning of unity and the value of humanity implemented since the beginning always aimed at gaining prosperity. Majapahit's great time was described by the author Mpu Prapanca as follows:

"King Hayam Wuruk with the title of Sri Rajasa Nagara went down to the world to bestow peace and prosperity to the people and Majapahit Kingdom. Mpu Prapanca identified The King Rajasa Nagara like Dew Siwa Budha who was worshipped at that time. He was also compared to Sang Hyang Giri Pati (Sang Hyang Siwa) who was sometimes called Sang Hyang Adhi Guru, who was believed to be buried in Semeru Mountain and who was seen as the God of the Gods, sacred, and the one ruled the universe." (Riana, 2009).

The excerpt illustrates the value of prosperity that always becomes the key word from the leaders to create a good and conducive life people always dream about. A lot of metaphors are used to describe an idea of a prosperous life, be it in a physical, glamorous form, or a cosmic description that shows man's understanding of physics and metaphysics, macrocosms and microcosms, real and unreal, the world and sub world, people from then and now, existing and imaginary, and so on. The most important thing is not the quality of the painting but the object to be painted, which is the life value about safety and peace in a life with the climate of togetherness.

The Melanesian people consume tuber plants, tapioca starch, and several kinds of local food as their staple food. In anthropology, this does not mean to say that Melanesian people are so poor they only eat tubers or local food. The understanding to read this formulation should be seen in a different perspective, which is the value of prosperity. People there are

always prosperous and never lack food because of their closeness to nature. People should never worry about their daily needs because nature will always be generous and attentive to human beings.

In the Majapahit, prosperity was seen in a concrete way from the wealth they had. It was because they thought of King Rajasa Nagara as the god of wealth, Kapila Jembala, like Sang Hyang Aji Saraswati as god of knowledge, and Mansija as god of love. Besides, King Rajasa Nagara was also compared to Yama Raja, the god who could calm people's anger and danger to make the Majapahit safe, prosperous, and peaceful (Riana, 2009). Three key words that were vital to keep people together were safe, prosperous, and peaceful, and they were spread to everyone in the world.

In the perspective of the kingdom, Tidore has been an important name. It started initially as an Islamic kingdom (Tidore Kingdom) and finally became a part of Indonesia. The meaning of humanity is led by the three elements, safe, prosperous, and peaceful as a reference to keep a peaceful life. The location of the kingdom and the calm, beautiful ocean helped Tidore develop into an interesting area. Around the 14th and 16th centuries, Tidore Kingdom included Papua, the islands in Raja Ampat, East Seram Island, right to the Isles of South Pacific, like Micronesia and Polynesia (Reid, 2011).

The beginning of the effort to reconstruct social reality has to refer to culture and language although in history, social reality has never been completed or revealed completely. An effort to review culture and language usually ends up with the strategy of naming things to find a way in a difficult situation and to find meanings of what happens (Peursen, 1976). Melanesia as a life event didn't have a name in the beginning. The name Melanesia began when European people came and gave meaning every time they met with social reality and called all the black people 'Melanesian.' This was not the ultimate name but it was used in many scientific and popular writing in many events.

Seeking the Essence of Melanesian Culture

Melanesia is a network of collected experiences from the awareness of the social reality of the Melanesian race. Indonesia is one of the countries with a lot of cultures which have become prominent in world history with the same Melanesian race's 'experience'. The time when Indonesia joined the Melanesian Spearhead Group (MSG) in the 20th Melanesian Spearhead Group (MSG) Leaders' Summit in June 2015—and before as an observer—needs to be noted as searching for the core of the Melanesian race. If seen from a historical point of view, the Melanesian race existed before Indonesia as people and country.

There is a strong influence of Melanesian race in the element of culture as seen from the anthropological perspective.

Searching for the Shards of the Melanesian Race

It is not a strange thing to have an initiative to reconstruct the elements that can be categorized into Melanesian race. Howard (1993) said that it is very important to reconstruct the understanding of the Pacific area to review the same term more realistically. He based his opinion on the findings from all over Pacific, and he found that western influence dominates the perspective and people's mindset in the area. The search for the history of men about the culture of Melanesian people is an important thing, or at least there is an element of local culture (of Melanesia) in something that has been influenced strongly by the western culture and other things (Howard, 1993).

Lubis (1980) in *Bangsa Indonesia: masa lampau-masa kini-masadepan* put Indonesian-cultured people in the Melanesian context. Although the book didn't mention the Melanesian Race specifically the elaboration there referred to Melanesia. Some of them are:

"New men went from South Asia to Nusantara about 2000 years before Christ, probably using rafts from woods, scattered around on the islands reaching out to the east in Irian, Australia, or even further to the east. The researchers called them Paleo-Melanesoid, Negrito, and Mongoloid. Maybe when they were still in Central Asia, called by the researchers as the place where human civilization was born, these newcomers to Nusantara had begun farming, planting the tubers, which grew well in tropical soil. They lived on hunting and collecting food. On this level they didn't have any social organizations besides their family, and there was no king or someone who ruled the country. They believed in taboos, magic, and that everything, animals, humans, trees, mountains, the sea, rocks, rivers, lakes, the sky, and so on, had soul."

Lubis then described the similarity of the people's way of life who resided in Melanesia. Boelaars (1984) complements Lubis by mentioning the strategy of basic culture of Indonesian people, which is connected to the basic culture of Melanesian race. For example, he mentioned the gatherers, farmers, and sailors. Boelaars refers to the pre-history and history experts about the journey of the ethnic groups in the beginning of pre-Indonesia to place the country in a non-exclusive or merely inclusive life line and with a close relationship with the surrounding ethnic groups, in this case everybody who lived in the area where Austronesian people lived.

Being sailors is a characteristic of the Melanesian race that has gone down from earlier generations until now. It was said that at the end of the ice age, a group of sailors from

Taiwan started a journey and the first place they went to was Nusantara (Indonesia). The sign of this 'sailor community' is marked by the strategy of travelling across the bodies of water, for example the straits between Taiwan, the Philippines isles, the Sulawesi Sea, and any kinds of deep sea indentation around them. As you can see in the first writing, this aural tradition is used a lot as the materials to write the history of an area.

The Nature: the Profane and Sacred

One of the main themes in a lot of publications about the Melanesian area is the perspective of nature. This part focuses on the profane and sacred reviews that describe an understanding of nature. This writing is in the religious context of Timor people. The data taken was based on the research notes from all over the island (Neonbasu, 2005, 2011).

Concerning the sacred and profane notes, the life of the Timorese People (Melanesians) covers both fundamental elements, with notes that the sacred is the main element here so this aspect is the one that will always control everything that happens to men. Almost all of human activities that are related to personal or other matters have a spiritual dimension with a sacred value that means *conditio sine qua non*, that it is absolute and needs to be paid attention to. What is interesting about the paradigm of the traditional life of the people is that the sacred value always influences all aspects of human life although the formula of it is not too popular for everybody (Eliade, 1987, Pals, 2001).

The evidence of how important the sacred dimension in the life of the Timorese people is the perspective of the local people's life which always revolves around a center that is considered very special. This central orientation is always seen as a sacred place to live and kept well by the people, personal or communal (family and community). This special treatment is based on the presence of God around the place considered the center. That place becomes a kind of golden bridge that connects men to invisible beings, between men's work and contemplated element of invisible things, between the way men think and the ultimate elements of human substance that are not caged in time and place. Once in a while, it is difficult to explain this invisible aspect.

In reality, the central position of God is not only elaborated formally in deciding on some 'particular center' but is also revealed in the community's patterns and habits when using the terms that have to do with nature. In daily sayings, the use of 'the sacred' becomes the benchmark and foundation of human life. For that, people will know more about sacred reality if they use the same signs and symbols. That is why the signs and symbols show a 'hidden something,' 'something that should be revealed,' 'something

that should be opened and explained' with simpler words. The signs and symbols refer to something sacred.

The sacred fact in the life of Timorese people always refers to the center and base of something that is totally different from the usual thing. It is very different from profane things. The right way to speak of it is using indirect language, similes or proverbs that are only understood by selected people. The pattern of the saying is found in symbols, signs, and myths. Myth is a symbol that is told in the form of a story, not just pictures but a series of descriptions in a real story (Neonbasu, 2009, 2013).

The meeting of the sacred and the profane is usually appreciated by the formulation of an understanding in the form of dual-cosmic thoughts. The facts and contexts of the life of the Timorese people are always adorned with the dual-cosmic attributes that systematically give meaning to the understanding of living side by side. For example, it has been done by one area in the remote area on Timor Island, the Biboki Kingdom (*Neno Biboki // Funan Biboki*, Biboki sun // Biboki moon). The spoken language of the elders shows the condition of the kingdom that mentions Liurai-Sonbai as the existence of the kingdom. This utterance is formed in pairs (doublets) to admit the existence of the two big kingdoms, Liurai Wehali-Wewiku and Liurai Sonbai. Not only do these names refer to the dual-cosmic, but also reveal the kinds of relationship which the ethnic groups, the political communities, or the ruler have. There were also terms such as *feto // mone* (sister // brother, woman // man), *olif // tataf* (siblings, younger // elder), *mone // nanan* (outside-inside) that came out in a constructive, symbiotic, and metaphorical way to name power construction in the life of Biboki Kingdom (Boy, 2013, Neonbasu, 1985).

The original authority of Biboki Kingdom is honored by the name Tnesi-Aluman, T'eba-Tautpah, and ruled under an emperor titled *loro* (sun, *matahari*). The authority of the emperor is never popular or glamorous, though. Rather, it is identified as *feto* (sister, woman, passive). In reality, the active ruler is Monemnasi, which is seen as *mone* (brother, man, active). But there is a socio-constructive relationship between the two, which is *feto-mone* (woman-man, passive-active, outside-inside, strong-weak) in one communion. One interesting dimension to mention is the condition of a super-ordinate ruler, Loro Biboki with a cabinet that is normally called Us Tetu-Us Tusala and Us Satkele-Us Po'bala (Neonbasu, 1985).

In a traditional socio-community, these names are a legislative group, which are representatives of the people. The construction of the names still refers to the *feto // mone* (sister // brother, woman // man) and *olif // tataf* (younger // elder, siblings) relationship.

The traditional political culture of Biboki would be guided by the political community in the future by naming Biboki Kingdom as follows: Banu // Anonat, Tahaf // Nafanu, Tnesi // Aluman, T'eba // Tautpah, Bukifan // Taitoh, and Harneno // Manlea, which is known as *klunin boes ma baat boes*, or ten pillows and ten roots (Boy, 2013, Neonbasu, 2009, 2011, 2013).

Ecology: Symbols, Signs, and Myths

The way the Timorese people understand ecology can be explained by reviewing the relationship among 1. Ecology and the sacred, 2. Ecology and myths, and 3. Ecology and symbols. First, ecology helps humans to understand the meaning of the sacred. Humans know the sacred substance because of their meeting with ecology so they can appreciate all experiences they get with the sacred. Everything in the universe becomes the bridge for humans to illustrate the way they think about the meaning of the sacred. The second thing can be compared to the first because it is just another formulation from it. The stories used are taken from the context and every day's life. Thus, myth is an engineering of people's meeting with the environment, where ecology becomes the foundation of people's creativity to formulate myths. The third, in using a language (including the usual language style), humans appreciated their meeting with ecology in an artificial way. However, to give a sufficient picture, humans do not only use an everyday language. There is another style of language with which humans can see their limit for vulnerability. Humans can see through everything, the limitations of our brain, intention, and feeling to find a newer perspective in order to capture the reality behind usual things. In this case, humans need symbols that are the engineered meanings behind the reality one can see with one's eyes.

Although experts always differentiate the religious symbols from profane signs, in general Timorese people only know the functions of symbols and signs to hide the deepest reality of normal things. Symbols and signs always have connection to something pure, something sacred, or in everyday life we say: 'should not be said in vain.' There are always rules on when and where symbols and signs should be used. Timorese people use signs and symbols in every ritual event, a strategy to create a proper atmosphere to meet a sacred reality.

Usually there is a change in someone's manner when a symbol or sign is said to start a stage of something sacred. This change is usually preceded by a change of people's mindset from the usual to the special way of life. Psychologically, humans who go through a change from usual situation to sacred and spiritual one are marked by the way they use simple words when starting the elements of a religious ceremony.

Timorese people believe that when the time is right—during the sacrificing of an animal or other special ritual events—everything profane can be changed to something that is more: the usual and simple become something special, the unimportant thing becomes something significant, and a common thing becomes the main and principal thing (Schmidt, 1939). Thus, symbols and signs are no longer considered profane although they are made of something non-special. They become something different, something sacred, something that needs more respect and admiration than they deserve.

Besides that, common people tend to connect everything with something bad and critical (misery, adversity, challenge, and anything that are the opposite of harmonized things) and carry out a ritual as soon as they can. People's minds are always limited but tend to go to the belief of the role of rituals to keep their life balanced. Rituals have become a potent way to keep harmony in macrocosmic (outer circle) and microcosmic levels (inner circle), which cover the outside part of a human life: God, nature (ecology), and ancestors (the unseen ones), other than living humans (the visible ones) and anything else.

People always judge every reality behind what happens quickly. That is why it needs some effort to understand their mindset so we can understand every ritual practice, especially the ones in remote areas. Observers tend to group any ritual activity as a practice to worship statues, faith in nothing, or giving hope to something impossible. Those actions are seen as something humans rely on uncertain and negative things either in the past, present, or future. There should be actions to return to reflecting the role of ecology in connection with people's mindset and how far the ritual practices relate to people's religious capital. The roles and functions of ecology in the ritual frame always give strength to people to understand the varieties of symbols and signs to build every meeting (humans with humans, ecology, and even something unseen.)

Symbols and myths attract the imagination and also intellectual understanding and guide people to understand social reality better. In a meta-psychological formula, symbols and myths attract humans in their entirety, which mean people with all their ability, emotion, intention, and even all the aspects of personality that subconsciously agree on new realities that surface as a result of their meetings with others. That way, Timorese people are certain about a change of perspective that all normal views will change to sacred ones.

Respect for Nature

The key words that need to be concluded are that Timorese people actually really

respect nature. Ormeling (1957) reviewed how people there pay a lot of attention to the preservation of Timor Island. Ormeling concentrated on the extinct ampupu trees that adorn Mutis Mountain Range in the area of Mollo between North Central Timor and South Central Timor Districts. Metzner (1977) reflected on the integrated relation between ecology and the life of Timor people on the eastern side of Timor Island. The two touched on the internal relations between Timor people and nature in the macro sense.

Nature is a kind of window for humans to go across to the supernatural world. The way humans see nature is not limited to the engineered understanding process, which has been given from generations to generations since the beginning of time, but it is enriched by knowledge that happens because of new situations and life over some length of time. That is why humans do not depend only on their intellectuality but also other observatory dimensions, which are personal (reflection, meditation, and contemplation), social (relations, social and networking psychology), and ecological (networking among humans, the natural, and the supernatural). There is always dependence between humans and nature, and also, a symbiotic networking between humans' rules and order that comes from nature.

Timorese people see everything that happens in the nature as a natural reflection of the richness of nature in human life. That is why a dignified life should not go against what happens in history and nature. Timorese people know a special relationship with ecology in the signs that connect directly to their life. To them, the humble and small thing does not merely refer to common happenings one does not count, but on the other hand, they have deep meanings that dominate humans' mindset and behavior.

Water, Rock, and Wood

There are three natural materials that always become the base and foundation of the Timorese people's life, water (*oe*), rock (*fatu*), and wood (*hau*). First is water. Water is natural richness that occupies a central position in human life (Neonbasu, 2011). The main role of water in life and the development of nature is not just in the aspects and functions that are visible, but more than that if seen from the perspective of ritual enactment. The characteristic of water is giving life and in the level of ritual process, it is seen as a significant element in the three time dimensions: past, present, and future. In this case, water also has the meaning of purifying. Water is the sole agent that cleanses and at the same time frees humans from their life problems. Water erases everything chaotic and brings humans to the right path by getting rid of any obstacles in life, including how to overcome any

hindrances that block the way to dignity. The usual local term used is *oe nasanut manikin ma oetenen*, “water gives coolness and mercy.”

Water fixes everything chaotic and rebuilds the harmonic relations in nature. In reverse, water can destroy everything that go against the rules of nature and humans’ longing to be close to the ultimate orderliness. The presence of water is always against any problems and conflicts. Water that gives peace is not suitable for any social clashes that happen in society. The place of water in the rituals is to place the correct foundation and commitment in people’s mindset.

The second is rock. Unlike flowing water, rock shows stability and metaphorically, mental resolution. Traditional Timorese society sees rock as a sign of a limit or the transcendence of problems that people face. Timorese people always avoid any instability in life. Rock gives a new thinking perspective of something that is tough, absolute, and ultimate. Rock is associated to something that is not easily swayed by challenges, troubles, or any problems whatsoever.

The Timorese people’s living places are built on cliffs away from danger. Moreover, rock indicates something mesmerizing yet scary, always interesting as it gives protection and certainty of the future. People in Kuan Abun see rocks as a quiet place, a platform where a life discourse is done. On this ‘rock’ the community builds a ‘*communio*’ climate in a brotherhood and togetherness. The rock itself is one of the nature richness that can be worn and it is up to the person what it is for. If it is used in a ritual, the meaning of the rock is not just the natural function of it. That rock also has a ‘meta’ value that goes way beyond its physical function.

The third is tree or wood. Nature becomes more interesting because besides water and rock, there is tree or wood. Behind a tree we can see the flow of growth and a journey forward, or a pilgrimage of the human life. Like flowing water, tree illustrates growth: starting from the seed to something bigger and more meaningful. In the perspective of a ritual, Timorese people believe in the function of a tree as the power to strengthen humans’ effort in all walks of life. Wood gives the sole meaning to think about growth, advancement, and development to the future.

In each ritual a ‘core’ (the local term, ‘*uf*,’ Uab Meto, Timorese language) indicates the origins that are one and the same for everyone. A tree is always used to describe the unity of people as an entity that starts and goes to a particular point that is usually formulated with the unifying flow of life.

The constructive relations and symbiosis of a tree is analogous with life that flows naturally from the source to the branches and twigs. In the local term they have '*tlæf*' (Uab Meto, Timorese language). The speculation of '*tlæf*' in the context of Timor People always goes to the term '*sufa*' // '*kaun*,' flower and fruit. The metaphorical meaning behind it is that the network in the generations in human life always starts from a tree, bark, branch, and twig, then flower and fruit, which are constructed to illustrate the wholeness that cannot be taken apart from each other in this universe. Recent generations cannot get away from their predecessors, which were planted and built by the ancestors (and God) since the beginning of time (Neonbasu, 2011). See also (Fox, 1989, 1995, McWilliam, 1997, 2002).

Reunification of the Understanding of Melanesia

The understanding of Oceania is based on an anthropological linguistic reflection about Austronesia reality to describe the spreading of the Melanesian race. It is hoped that this understanding can guide the review about the whole understanding on the reality of the Melanesian race. This understanding aims at building the feeling of having the same race, so in the end they can find the similarity in order to do all the activities together. The Melanesian Spearhead Group (MSG) is a positive effort toward the same goal.

Notes on the Melanesian Spearhead Group

Who and what is actually the Melanesian Spearhead Group? Levi (2004) elaborated on the historical founding of Melanesian Spearhead Group. The main mission of the Melanesian Spearhead Group is the result of contextual reflection about how important it is to build prosperity in the region, in which case is among the community of the Melanesian race. The initial name of Melanesian Spearhead Group was The Pacific Islands Forum Community (PIFC). The first community began from a previous meeting called South Pacific Commission (SPC) which after years after being established developed into PIFC. The old name with the new face happened after Australia and New Zealand joined. Timor Leste and New Caledonia then joined as observers. The name kept changing and after Australia joined, the organization became the South Pacific Forum (SPF) to increase the participation and activities in the crucial center of the South Pacific that consisted mostly of poor areas (Levi, 2004).

Several Polynesian countries, especially those under the authority of the USA also joined SPF in order to expand trade in the Pacific. These fundamental goals to 'establish a mutual commitment' to improve the economy and relationships among the Pacific

countries became the key of the organization. The challenge for PIF is how to avoid the socio-political issues that often disturb the relations of the countries in the Pacific. In the next trade strategy of the Pacific community is to build a new organization, The Pacific Islands Countries Trade Agreement (PICTA), which accepted Australia and New Zealand as new members in 2010. In its development, the European Union also joined the organization which next became The Pacific Agreement on Closer Economic Relations (PACER) which is still under PIF (Levi, 2004).

In the next step came Economic Partnership Agreement (EPA), the combination between the countries under PIF and African Caribbeans Pacific (ACP) to strengthen the relationship among the developing countries in Pacific and Africa. But then there were a lot of changes and development that gave a lot of input to PIF so it became the Melanesian Spearhead Group (MSG). The most important thing that became the keywords for any MSG members were: "Let us build a stronger Melanesia in the Pacific where peace, progress, and prosperity is ensured and sustained for all." The image of the strength of the words can be compared to the issue from Majapahit in King Hayam Wuruk hundreds of years ago. Even in the regional perspective, the ideals can be compared to Gadjah Mada's thoughts.

Recently there was a monumental event on June 26, 2015, in Heritage Park Hotel in Honiara, the center of Solomon Islands. Indonesia was legally accepted as an associate member whose role and position are the same with the full members of MSG. Positive feedback came from all members of MSG community, such as PNG, Fiji, Vanuatu, New Caledonia, and Solomon Islands. They accepted Indonesia with full enthusiasm as the representatives of Melanesia in Indonesia were present from East Nusa Tenggara, North Maluku, South Maluku, Papua, and West Papua. Indonesian councils represent more than 10 million Melanesian people in Indonesia, which accounts for 60% of Melanesian people all over Indonesia.

Comparison of Melanesian Elements

The next topic is some cultural elements the Pacific society, which also work for the ethnic groups in Melanesian people in general, including Indonesia. Two researchers from Divine Word Madang University, PNG, discussed a spiritual reflection on the root culture of Melanesian society in the context of Papua New Guinea (PNG), which can be found in Melanesian Indigenous Knowledge and Spirituality (Nongkas and Tivinarlik, 2004).

The cultural element of traditional Melanesian society in the context of Papua New Guinea (PNG) can be found in the life of the native people. They have unique characteristics

in relation to the transition of the social style and strategy in the society. They keep their life by basing their perspective of understanding of the future in the context of the changes that happen very fast. That is why some aspects among local values and traditional religions have a big influence on all the efforts trying to find the original life from the past.

To PNG people, local values and spirituality are two fundamental things in the society; both of them are one entity that connects to one another. Local values have a holistic characteristic, meaning the information, skills, and values that are rooted to a particular environment are so important that is impossible to omit from the daily life. Everything connects to the society, history, experience, and any traditional heritage. This knowledge is dynamic and gives strength to people who live in society (Nongkas and Tivinarlik, 2004).

In general, spirituality is not only an experience of spiritual life but also the pattern of life discipline that is influenced by belief, intellectual position, and moral choices. Besides exclusively being a spiritual issue, spirituality is also a way for people to put their life in order. Basically, spirituality is not a means to get something, but the fact of human's life, which sees spirituality as a 'life process' and not just a series of good deeds (Nongkas and Tivinarlik, 2004, Schulte-Nordholt, 1971).

What our ancestors experienced was passed on orally from generation to generation, spiritually or religiously. The life of the PNG people shows the relationship between pure knowledge and spirituality. The one that is very obvious now is that life is always connected to the spiritual world. The Melanesian characteristic is very strong in people's life as it connects to the present and future times, which are impossible to divorce from the spiritual world and everything that has something to do with God. Most traditional Melanesian people try to retain the harmony in the cosmic relationship between the worlds of the spirits and humans (Nongkas and Tivinarlik, 2004, Schulte-Nordholt, 1971).

In that level, a ritual is seen as human's reflexive strategy on how important are the real world, the present life, and the spiritual world, where the ancestors, as the ones who control lives, always help people. Until now, many members of society always join the rituals, but most of them do not know why they do it. The core of spirituality lies in the traditional culture. Spiritual belief is closely related to all aspects of life in particular contexts. So, Melanesians' spiritual awareness is an important part in understanding the social and cultural lives of the Melanesians. This can be compared to Zocca and De Groot (1997) who emphasized that there was no separation between the empirical and non-empirical, the nature, and the supernatural in the cosmos. The inter-connection between nature and the supernatural is a different concept in Melanesia and in the western world.

The western world presents the view of a dichotomy world, while in Melanesia, the two are inseparable (Nongkas and Tivinarlik, 2004).

Melanesian traditional religion is not as formal as Christian, Islam, or other official religions. There is a connection between customary knowledge, spirituality, religion, and daily life. Traditional religion plays an important role in the society's spirituality, meaning that the same religion will always connect to any matters and the society's life. General things in society are seen as a total expression from the society related to the spirits, earth, forests, rivers, birds, and animals. When common people perform their activities every day, there is always a connection between the sacred and the secular; both of which are an integral entity that is difficult to separate.

Many times, the importance and needs of individuals are neglected because the imagery of the society life is more important. Balance and dimension are the key words to build togetherness in the intercommunication in the society. All kinds of experiences of the Melanesian society show that there is 'no dichotomy in life.' Everything connects to each other to make a complete circle.

As an example, when someone is hurt, he also has to find out his relation with society, the cosmos, and with the dead. If the wound is caused by an enemy, then it is not his right to avenge. The society believes that this calls for reconciliation, which is an effort to renew a social relationship that is broken or chaos in one's relation with the cosmos. The same thing can happen because there is no contact with dead people and others. Something that is visibly seen is a foundation of understanding the experience of the traditional society about spiritual life. The traditional faith influences the way where people as a community and individuals try to understand themselves and articulate the understanding in the frame of togetherness (Nongkas and Tivinarlik, 2004).

Melanesian spirituality is similar to a relational network, which can be reviewed in myths, stories, symbols, rituals, taboos, beliefs, art, and dances. Traditional religion that grows in the people's heart is always appreciated in a number of rules (different rules for people from different genders), procedures (how to act and behave correctly), life pattern (everyone's basic strategies in a particular surrounding), thinking pattern (people have original mindset that is fixed to their understanding of nature), relation dynamic (they have a great strategy to appreciate others including their enemies), the way to review facts (there are always basic ideas in the society to refer to a group identity).

A bad relation in the cosmos is immediately experienced by people as something hurtful. Non-Melanesian people, especially those in the medical field, keep asking why

sick people are not taken to the hospital when they get ill. In many cases patients see traditional healers for the prognosis of the illness they have and may think it was a curse. The healing process is also related to a harmonious relation with the cosmos (Nongkas and Tivinarlik, 2004).

Melanesian People's Worldview (West Papuan Society)

The Melanesian element that is significant is the worldview, and this discussion focuses on the pattern of the West Papuan people. This review refers entirely to the connection between oral tradition and development. In general, West Papuan people have a lot of sayings that can be seen from the way they think, the people's perspective on themselves, other people, the universe, the world of the dead, including God. People in Papua (Papua province and West Papua) have 310 languages. West Papua itself has 67 languages (Sujadi, 2013).

The most immediate problem is the inability to accept and review the sayings in society. Oral tradition is crystalized and found in folk songs, word puzzles, word games, folk tales, myths, legends, daily greetings, spontaneous expressions be they happy, sad, or surprised, classical comments, sad, happy, or surprised expressions, and any archaic forms from the pattern of society's life system.

The Merdey community in Bintuni Bay often sees something, from terms or actions, in relation to something else. That is why development is always connected to government, from above, belonging to others, subject, and object. Spontaneous impressions always come out about 'development,' which is thought to be 'foreign' because the effort comes from outside. Everything from the outside is always foreign. If they think about the government, it is identical with an institution that has everything, that has to be obeyed. They often follow something without knowing anything about it.

The Merdey area is not different from Melanesian culture, which has been identified by Tucker and Petocz as a domain that includes said culture. In oral traditions, not only is the area identification discussed, but also some identity and deep respect of people's conscience. How the development dynamics looks at oral tradition in the same way so people also feel that they own the development, and thus they can be involved in it. In the original meaning, development has to be understood as an on-going attempt to guide society so one day they can find their own identity.

Tebay (2009) gives us an acute analysis. He didn't just present the root of the conflict in Papua that came about since it joined Indonesia on May 1, 1963, he also reviewed another aspect that was more fundamental to analyze every conflict that appeared in Papua.

The Indonesian Institute of Sciences (LIPI) mentions four sources of conflict, first, the marginalization and discrimination of native Papua people; second, the failure of development especially in education, health, and the empowerment of the people's economy; third, the violence done by the country in the past; and four, historical contradictions and constructing the political identity between Papua and Jakarta (Tebay, 2009).

My assumption was that the dynamic of development has gone out of control in general to review the role and function of the oral tradition. This oral tradition is always connected with local content in society. The dynamic and paradigm of development in Papua does not structurally involve the core and dynamic of the common people's life because tradition from the ancestors and the culture that goes from generation to generation are not reviewed further.

We see more of the series of military operations that happened in West Papua: (i) Sadar Operation 1965 – 1967, (ii) Brathayudha Operation 1967 – 1969, (iii) Wibawa Operation 1969, (iv) the military operation in Jayawijaya District 1977, Sapu Bersih Operations I and II 1981, Galang Operation I and II 1982, (v) Tumpas Operation 1983 – 1984, (vi) Sapu Bersih Operation 1985. In reflection, these operations showed some results, but culturally, they only created scars in the local society's 'human reflection.' Looking at the experience from Timor Leste, as long as the military operations are not followed by some approaches in social and culture, those things do not create prosperity in society (Syahnakri, 2013, Tebay, 2009).

Papua's culture and traditions experienced big shocks when these operations were done. The approach that did not refer to the culture caused a complicated misunderstanding because there were miscommunication and misconception among all parties. Psychological or psycho-political pressure was applied because the aims and goals of those operations were not transparent, meaning that they were not explained in the context of the understanding by the Papua people as in Honiara, Solomon Islands, in June 2015.

The image of development that is practiced in West Papua should pay attention to culture as a *conditio sine qua non*, which is something essential. Culture is an integral part of human life as individuals and in the end the same culture is a must when living in a society. The dynamics in the development is not accompanied by a critical evaluation of the situation and condition of the real life of Papua people. This in turn will ruin the image of Indonesian people reflected in the Papua people. Complaints emerging from Papua actually come from feeling of having the characteristics and existence of being an Indonesian to evaluate the life system that is not well organized.

The Reflection of Culture from the Pacific

Now it is time to display the face of the Pacific people in a Melanesian cultural image. The only source is the work of Ton Otto who combined the intellectual team work of two campuses The Australian National University (Canberra) and the Center for Pacific Studies of the University of Nijmegen, the Netherlands, in 1993.

This work is very significant because it clearly lets out the problem that has been buried for years in the bottom of the Pacific Ocean. What is interesting are the thoughts that signal how important the fact that the Pacific people look for their self-history and identity. It is inferred from the result of the research about the Pacific people as an inseparable part of the Melanesian race, which began from the west to the east hundreds of years ago. The dramatic journey began from the Indonesian archipelago to the Pacific region in stages in quite a long time.

Voices from the Pacific

There are several strategic reviews from the Pacific region about the culturally similar items in the Melanesian frame. Otto (1993) discusses the Melanesian culture model in the Pacific context. Most of the South Pacific countries got their independence in the 1960-1970s. Most countries have inherited a colonial tradition and the ones holding on to their ancestors' values are very few. In connection to the political traditions, the Pacific region has a long and unique history with the western influence that is very complicated. Contact with the western world has changed the face of the life of the traditional Pacific societies. The history of the migrations and then the technology renewal are very influenced by the western perspective that has started the people's life in that area. Western reviews and findings have dominated the history of the society since the beginning of time. Though we must remember that whatever the history of the Pacific people is, they are an integral part of the journey of the world in general, and they have been specifically categorized into the Melanesian race (Otto, 1993).

In the contact with the western world, the Pacific people seem as if they became the last receivers that look very passive. They watch how the western people found their land. They meet the traders and the travelers who pass by the place where they live. They then watch newcomers start work on their fields and land. Their attitude changes to fight against these people – in a small scale – to defend themselves and their land, after they become aware of their pride. They also hear the stories of the missionaries, not only about the western tales but also about their ancestors that turned out having been recorded

wrongly. They also meet an anthropologist who comes to collect their stories and tales. It seems there is a mistake because native people only passively listen to the stories from the outside world about the treatment and judgment that are biased (Otto, 1993).

In the meantime, the influence of the conquerors is obvious in Baruya's life in Papua New Guinea that started with trading salt, but expanded over the course of time. Traditional life is changed into something more modern but only temporary. Society connects all that happens with signs and symbols they knew earlier. An event in society is naturally marked by nature. For example, once the Baruya people saw two big birds chasing and fighting each other in the sky. It so happened that it was a sign that after white people came, World War II broke out, and there was a big fight between Japan, the United States and Australia (Godelier, 1993).

A lot of anthropologists are only attracted to what is kept in the museums and the stories told by the discoverers without really paying attention to the dynamics of the contemporary life of the Pacific people, which is actually very rich. The thing that is often found is an effort to illustrate the Pacific people as development or make comparisons with western life. The Pacific mind has to be seen in the Pacific context, not comparing it to the other models from different areas like in the west. Western romanticism spread by the travelers should be stopped and the materials needing reflection are the basic thing the Pacific people have. They are like an empty vessel, filled with all kinds of cultures shared by the land discoverers (Otto, 1993).

Keesing (1993) suggests that the Pacific people have abandoned their own traditions only to accept western culture under pressure and despair. Local potential is also lowered by the time by the attitude of the discoverers who emphasize western systems and patterns. We can see everywhere that the Pacific people leave their tradition and use the new one by power, be it by the system and new cultural system, or the strategy of religious life. Although the 'power' of the politics of independence has taken over the Pacific region, but economically and culturally, they still depend on the occupying countries or the countries outside the Pacific. Modernization in their context means they have to follow the western pattern that is very strong and dominates all situations in the Pacific region (Keesing, 1993).

Looking for the Root of Life

The job of the anthropologists is to criticize by doing re-research on the Pacific, which is not just lost in globalization. A deeper study on the Pacific does not mean that people in

the area should stand by themselves in one side, but they will return to their own roots. The effort to find the root of their life is the most basic strategy for the people in the Pacific area to find themselves, be it by adopting or adapting or even making new creative adaptations of the tradition they have. Something existing right now can be the creativity of something foreign that was brought by the conquerors or something the discoverers happened to deliver. An anthropological study should be directed to (i) reviews of cultural models, (ii) reflection of the changes in culture, and (iii) analysis of cultural products (creativity based on new input from the west). These three things really help the Pacific people to see more clearly what social behavior should be done (Keesing, 1993).

A anthropology researcher cannot please everybody, including the local reader. But he has to abide by academic standards and ethical demands. The *raison d'être* for an anthropologist is an action to keep his distance with his own understanding of culture. His knowledge will be brighter when a researcher avoids comparing his own knowledge about the original culture and the culture he was studying with the understanding of the culture.

Anthropologically, life in Oceania should be reflected from the perspective of the renewal and changes from the west to the region. In 1967, Godelier got time to research PNG on its (i) the changes of social behavior and (ii) the changes in the way of thinking of the local people. He started from Baruya which was found by Australia in 1951 and occupied until 1960. In 1975, Papua New Guinea got its independence and Baruya became part of Papua New Guinea (Godelier, 1993).

What happened in Baruya is not different from that in the Solomon Islands, which according to Keesing was dominated by a west that never pays attention to traditions and the local people's heritage. The root is the contextual study that is not planned well, so to cover the drawbacks, a number of projects to develop the economics of the region were carried out. But this approach did not work because the feasibility studies about the potential of the people's life context were not heeded. It turns out that all kinds of economic efforts did not make the Solomon Islands become the focus, and those ordinary people only become tools and experienced many disadvantages (Keesing, 1993).

The political patterns of the western economy dominates the changes and development in almost all of the Pacific area, which then spread to Micronesia and Polynesia. The occupancy of culture is done by dominating the people's economy and the countries in Pacific. Compare it with the Melanesian Spearhead Group that at first dealt with economy but then shifted to politics. A newspaper in the Solomon Islands, the Solomon Star, talked about it in the 20th meeting of the Melanesian Spearhead Group in Honiara, June 23-27,

2015. The Melanesian people also said again their wish to rebuild the bridge that has been destroyed for centuries.

A researcher or an anthropologist has to be able to describe the involvement of the local people in all the aspects of their life. How the local people tell the stories of their life, how there are frictions, and the way to solve the problems as they live together. The human dimension of the ordinary people should be on a special agenda of all events the village people experience in a simple, usual way (Howard, 1993).

Land is a very interesting social anthropological object study although the pioneers in this field did not give access and enough information about the issue. The question that was often asked when the west dominated the area was if the land was owned collectively or individually. The usual finding in the Pacific area is that the ownership is collective with the authority belonging to the chief of tribe. Collective ownership is then given to individuals. Many newcomers to the area manipulated land ownership affairs, with ownership moved from group to individuals or even to other groups (Guiart, 1993).

One thing that always becomes the center of attention of the history and anthropology is the precious things that are never realized by today's generation. That is why Malinowski and a British anthropologist Rivers (1979) always stress two fundamental things: (i) the duration of the research should be long to get as much as possible in the research location, (ii) the change of population numbers should be reflected in the reviews and reflections. Maurice Leenhardt continued Rivers' findings (Clifford, 1992) by picturing the Pacific people as the dynamics of human life that is typical in the Oceanic region, which is the continuation of the spread of the people of Nusantara (Guiart, 1993).

Reflections of Global Culture

Re-reflection is needed about the real situation in the field about the condition of the Solomon Island's people and Pacific as a whole. The uniqueness and characteristics of the Melanesian people make them not that easy to be led to match the western way of life. The contrast is very sad—when businessmen live in abundance, the people in the village live in a limited state. Inequity is a gap in social life that needs more better arrangement (Keesing, 1978a, b, 1981, Keesing, 1993).

What is special in Baruya tribe in Papua New Guinea is that western people are always identical with industrialization that often causes a shock for local people. The problem is actually almost the same in other areas, such as in Africa, Asia, America, and Oceania. The influence of ethnic groups is very dominant, for example, the local togetherness which

comes from the social kinship with strong traditional bonds. In every tribe there is a similar principle of life, a prospective way of thinking about the future, respected rules on the system and marriage pattern, and living together that is more prospective. The pattern of social life is respected in the tribe which is led by the chief of the tribe. Anything with traditional patterns are always challenged by the presence of foreign elements from the west with their complete institutions which confuse people in remote areas (Godelier, 1993).

People's life is always filled with various kinds of social rituals to reveal their relation with nature, ancestors, and God. Belief in God's power dominates people's everyday life. Local people's life, although always looking simple, has its own political power by depending on the authority of a very strong local life. There is a division of roles between women and men in their life that is controlled by traditional laws. There is the term 'big men' that can be differentiated from common normal people. The role played by the 'big men,' besides in wedding matters, is to lead rituals and other kinds of activities in society. There is an interesting story about the sky and the earth, which is not only united by the understanding of humans and animals, but is also based on life in relation to nature with humans at the top. There is a close relationship between the sky and earth, which metaphorically is connected to the relation between men and women in connection with procreation (Godelier, 1993).

Looking at a Different Dimension in Life

Howard (1993) presents a historical discourse in the frame of an anthropological review about Polynesia, where it can be connected with the Melanesian domain in general. The anthropological history of people in that area is described as in line with the journey of the ethnic groups on the Polynesian island. To be more certain about historical truth, we can check artifacts and tradition in the ordinary people's surroundings.

History knows the fishing patterns from one island to another so we can escape paying attention to the people in trying to identify the area. But looking at heritage in terms of materials, culture, language, and tradition, the anthropological history about that area must not be wrong. The actual theory in the reflection 'evolutionism,' can mean that humans can escape attention and only changes and physical development become the main thing being reviewed. In the context of Polynesia, the researchers' main attention initially only lays on the west with the approach strategies of politics and economy grafting the changes and development into Polynesian society (Howard, 1993).

In reality, changes have to involve ecology and humans as the center and main current. In the 1930s, the anthropologists Feliks Keesing and Ernest Beaglehole studied changes in culture in Polynesia. Acculturations happen. It is the melting of local tradition and culture in the western culture and way of thinking. The recordings from the missionaries, the freelance researchers, economic observers, and pilgrims did not accurately portray the society.

Firth (2013) gives a very significant picture of kinship, political systems, and other issues around the Pacific. Firth pays attention to local things that should have become the attention of other anthropologists in reviewing more deeply about the social reality in the Pacific society (Polynesia). There are some difficulties to describe the transition in the values between the western influence and the local people. Firth introduces a new way of study in history by not holding onto the stereotypes in the society but by going deeper in paying attention to the mindset of the people which are related to the cultural heritage of local people (Howard, 1993).

Firth's (2013) study on Tikopia gives a valuable picture of various ways of thinking the local people have, which have not been fully recorded and calculated by previous researchers. Two decades after that, in 1980, the researchers, Denning (1980) and Sahlins (1981) produced descriptions of Hawaii and the Marquesas which give more understanding about Polynesia as a whole. The study reviews further about the meeting between the western culture and the Polynesian. Although this writing is dominated more by the critical reference about the presence of the west that has ruined the way the Polynesians think (Howard, 1993).

An interesting thing that is revealed by these experts is the Polynesian cultural revitalization by cooperation between archeologists and anthropologists.

"If we are to write credible histories of Polynesian societies during the colonial period, however, we have to do more than take European biases into account. We have to do something to compensate for the silencing of Polynesian voices. In my opinion, one of the best ways to do this is through biography, and by assisting and encouraging Polynesian elders to record their own autobiographies" (Howard, 1993: 87-88).

The history of colonialism, according to Howard, is European culture taught at schools, and only a little that deals with the life of common people, especially the people in remote areas. Howard was right that history has to be told in the context of human life. Good history has to give a realistic picture about an area with the people's identification and cultural background which are correct and unique (Howard, 1993).

Every area has its own way and pattern to build their life history that is suitable with the identity the society has. Interesting stories about Polynesian society are told in mythology and legends in the form of specific metaphors. The history of ethnic groups in Polynesian society is varied and needs to be studied more deeply. A lot of experts have studied Polynesia but the history they portray is more about European influence. That is why something that needs to be done is checking the recorded stories that are based on the mindset of the elders from the villages who live in the remote areas. A study on the origins and genealogy and on topogeny plays a big role in the study of accurately mapping the ethnic groups of the people in Polynesian area (Howard, 1993).

Folktales are one of the sources to get a correct biographical description of Polynesian people. Polynesia has jokes in the context of family, greetings, and meaningful sayings, names of places under the authority of a particular ethnic group, and the image of influence on traditional society. Local people have specific ways and patterns in correctly and contextually revealing their identity. In 1959-1961, Howard went to Rotuma. He went back to the area in 1987-1991 and found a new perspective that has been recorded during his earlier stay (Howard, 1993).

Conclusion

In centuries the history of Nusantara has been alive from the perspective of Melanesia in the life frame of Oceania. The Melanesian image is elaborated in three fundamental discourses, which are unity, humanity and prosperity and this is passed down through time supported by the dynamics of human life on the domains of Nusantara and Pacific.

Now the image of Melanesian culture can be read in all context of human life in the whole region whose people speak the Austronesian languages. Multi-faceted people with varieties of perspectives on life are connected to nature and everything can be found from generation to generation along the journey of the Melanesian race. The picture of the border line between Melanesian culture and geography does not mean to build a political map based on the rise of 'the Melanesian feeling' to make an exclusive political region. It is merely to find the origins of life to build social realities on the awareness of the existence of Melanesian race.

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EPILOGUE

Taufik Abdullah

Bhinneka Tunggal Ika is the official National Motto of Indonesia. It means “Unity in Diversity”. Since the declaration of Independence, both the ruling government and the people of Indonesia have given their efforts to keep and to prove the unity of the nations. Initially, there are many ethnically distinct groups with their own unique identity and different social and cultural tendencies in Indonesia. Many historical episodes have happened to the people of Indonesia; they have faced and have been able to overcome various kinds of obstacles so that Indonesia as a nation became strong as it is now. Indonesian citizens celebrate the country’s unity through various kinds of events. In fact, the people of Indonesia have been used to carry out many efforts to minimize differences as cultural strategies to promote the unity of the nation.

While struggling to stand up for the unity of Indonesia, the diversities of the nation which are essential points of the national unity are somehow neglected. Fundamentally, without disregarding the main purpose to create lasting unity, the academic knowledge of the origin of different nations and a deep understanding about cultural differences are seriously needed. By having a profound understanding about differences and knowing the origins that may have connections, the strategy of strengthening the foundation of national unity will also be clearer.

Suddenly the history is here, and we will understand more about the meaning of being up-to-date, about various dynamics, and experiences. Unexpectedly we are giving attention to what and how the culture of Melanesia is; it means that we are approaching not only the existing world that we are living in now, but also the past which may be more important and part of the reality of the nation. Isn’t it the fact that the word race has been used in the history of mankind and the changing of the world?

When the origins of people have started to be discussed, we have started to enter the journey of mankind’s history that started thousands of years ago. At this time, groups of immigrants started to inhabit the Indonesian islands, although some islands had begun to experience the changing process. Those new settlers came and expanded, and they or their descendants started their journeys. At the beginning, they had their journey to the

eastern part of Indonesian Islands, but later on, they continued the journey to the islands of Pacific Ocean, and the continent of Australia. And then, the Melanesians inhabited the islands of the East Nusa Tenggara, North and South Maluku, Papua and the islands of the Pacific Ocean. On the other hand, the islands in the western part of Indonesia were inhabited and occupied by the Austronesians, the new settlers from Taiwan. Nevertheless, at the beginning, the process of assimilation among the new settlers of Austronesians also involved the Melanesian culture, although they had tried hard to keep their own language and culture respectively.

The changing system of power and spreading maritime area, and also trading in the West could even strengthen the relationships among the early settlers of Indonesian Islands. When the author of “Negarakertagama” declared that the occupied region of Majapahit went as far as Maluku, it was proven that the good relationships between these two races had long existed. Although these two races had gone through different historical experiences and had different languages, they had intense interactions in trading activities so that they influenced one another culturally.

The arrival of western traders that later became the conqueror and colonist did not stop the relationships that had been established before. During the battle for independence, all of the Indonesians who came from different backgrounds and races, had similar faiths and became united. The development of Bahasa Indonesia from Bahasa Melayu that could even be used to spread the main religions, Islam and Christianity, was able to strengthen good relationships among the Indonesian people at that time. In modern times, people started to live in the cities and had their own lifestyles; many aspects of modern life started to become part of their reality. Although modern education had not been developed well, many government employees were still discriminative; the ruling power was still secretive; and the aspects of colonialism had given their way to understand more about the existence of imbalanced social condition. When the newspaper came into being, nationalism became stronger than the regional spirits.

In a journey of history, having similar experiences and historical backgrounds, and also sharing the same ideal national sentiments could bridge differences in various kinds of ways.

Nevertheless, aside from the dynamics of history which have been experienced by the nation, knowing the origin of genealogy, language and also the spreading of Melanesia could make us more knowledgeable and thoughtful about the nation and the country, the Indonesian islands as a whole.



The people of Indonesia represent a remarkably wide diversity of culture, language and appearance. This book traces the origins of the people living in the Indonesian archipelago. Because the earliest arrivals of people in the region took place long before written records existed, developing a picture of this distant past relies on methods from archaeology, linguistics and genetics. Its multi-disciplinary approach also includes views from geology, anthropology, history, sociology and oral traditions. The book traces the story of these people starting with the earliest arrivals of migrating people which took place from about 50,000 years ago.

The story of these peoples is extremely complex, but is told in an accessible way by the book's authors. It covers the environmental and climatic contexts in the prehistoric period, the paths of these early people's migrations, the time frame of their settlements, the cultures they brought with them, and the contacts and interactions that they had. The book, commissioned by the Indonesian Ministry of Education and Culture's Directorate of History, is richly illustrated with photos, maps and diagrams. It opens a window to understanding the rich and complex story of the people who inhabit the country today.

Despite the great variety of groups, languages and cultures in Indonesia today, two main groups can be distinguished, Austronesian and Melanesian. The term Melanesian is used to describe the group of people, living primarily in East Nusa Tenggara, Maluku, North Maluku, Papua, and West Papua who share a common culture. While Melanesians are also found in Papua New Guinea and the island nations of the southwest Pacific, the largest number are found in Indonesia. Meanwhile, the term Austronesian refers to the related but diverse groups of peoples who form the majority in the western and central parts of the country. As the book shows, however, there has been a long and complicated process of contact, intermarriage, and cultural and linguistic influence between Austronesian and Melanesian people and among their many different subgroups. They are so interrelated at multiple levels, in fact, that it is mistaken to see them as separate, mutually exclusive groups.

The book's chapters are all by Indonesian authors and present a balanced and authoritative picture of Melanesia from an Indonesian perspective which is informed by recent research. The book covers Melanesia in Indonesia over a broad sweep of time from prehistory to the present. It gives a clearer picture of the past that can help to inform governance in the present that is just, equitable and geared to a better life for all. It can also contribute to constructive and productive relations with Indonesia's Melanesian neighbors in the Pacific region.

