

Acromiocristalis Population of Pygmy Rampasasa (Manggarai District, Flores Island, Nusa Tenggara Timur Province)

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ABSTRACT

This research study the occurrence of variation in acromiocrystal index within and among populations. The objective is to describe and explain the variation in acromiocrystal index of Rampasasa pygmy population in Rampasasa Hamlet, Waemulu Village, Waerii Sub -district, Manggarai District, Flores Island, Nusa Tenggara Timur Province. The data of this research was taken from the Research Project on Somatometry and Somatoscopy of Rampasasa Pygmy Population held by research team of Laboratory of Bioanthropology and Palaeoanthropology Gadjah Mada University Faculty of Medicine on April 2005 and April 2007. As many as 137 people (59 males and 78 females) age of 16 -95 years contributed to the research. They were all healthy and met the inclusion criteria. Measurements were done from 09:00 AM to 04:00 PM to eliminate diurnal influence. Bi -acromial and bi-cristal breadths were measured using a GPM Swiss spreading caliper. Subject position for measurement time was required in Frankfurt's plane anatomic position. The data were analyzed by descriptive statistic to describe acromiocrystal index of the population in general. T -test or D/md-test analyses were used to examine differences among age groups and gender. Corr elation test of person was applied to find relationship between acromiocrystal index and age. Further interpretation was studied using the data of environmental and cultural background of Rampasasa people. The results showed that acromiocrystal index of Ra mpasasa pygmy population was different from the population of Dogon (Africa), Javanese (Yogyakarta), French (Europe) who represent Negroid, Mongoloid, and Caucasoid people respectively; moreover they were not much different from Seram people (Maluku) who a lso have Australomelanesoid traits. Several factors suggested being involved in these differences included: pelvic growth, fat accumulation, body type, sex, and race. Human biology and its environment (a-biotic, biotic, and socio-cultural) always interact. Ignorance of one of them might blunt sharpness and make analysis depth shallow.

Key words: acromiocrystal index, Rampasasa, pygmy, Manggarai, Flores Island .

Physical anthropology was the study about the aspects of humans' physical namely, evolution study and biological variation of humans (Lasker, 1976). This study related to variation sources and change directions between individual and the group in the past and today. These variation sources were in genetic difference and genetic potential environment modification. Attention was aimed at growth and development variations which explained the differences in anatomy structure, organ and tissue. Physical anthropology also studied the differences bequeathed to the individuals who were different in size and shape, especially among the groups from different areas in responding various conditions of size test, for example the normal weight and height of children which were differentiated based on the sex

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and age from different places could help as the standard to measure the condition of individual growth.

Physical anthropologists studied the physical size and shape because they influenced the individual biological functions. They studied it by using anthropometric method (measuring human). The measurement only gave information about the size. To describe the shape, indexes must have been made, as the proportion on the measurements. The index values would be used as grouping and qualification. One of the indexes used in this research was acromiocristal index.

Olivier (1969) confirmed that the index was influenced by flank growth, degree of degree of fat pile, sex, race, and body type. Next, Olivier classified the index values were trapezoidal trunk (below or equal 69,9), intermediate trunk (70, 0 -74,9), rectangular trunk (above 75,0). Generally men had trapezoidal trunk while women had rectangular trunk.

Barley and Bayer (1946) classified the nature of manliness and its femininity based on the acromiocristalis index values as followed: hyper masculine (below or equal 68,0), masculine (69,0–73,0), intermediate (74,0-76,0), feminine (77,0-82,0) and hyper feminine (above or equal 83,0). Huizinga & Birnie -Tellier (1996) reported that the sample of Dogon Africa, a dry area, the difference of index acromiocristalis between men and women was relative low (69,9 and 73,9). Suyanto (1978) reported the same thing in sample of Java exactly Yogyakarta (70,73 and 75,54). Olivier (1969) also reported that in sample in France (74,0 and 83,0), the difference was more real. This fact showed the aspect of sexual dimorfisme in a poor /developing country was not really real if compared to a rich country. Suriyanto & Koeshardjono (1999) got the different result from the three samples above on their research toward Naulu (Seram Island, Maluku) sample. Grimm & Hoppe (1969) reported that the difference of index acromiocristalis between men and women in Germany, 6 years old until 18 years old showed the older they were the more the values they had. Suyanto (1978) mentioned that women in Java exactly Yogyakarta showed the strong positive correlation between the age and the acromiocristalis index but it did not happen to men. This fact could be concluded the growth of women flank was faster than that of the shoulders; while the speed growth of shoulder and men flank was relative the same.

Bayley and Tuddenham (1994) mentioned the flank growth in 17 years old person almost stopped. It was because besides by hormone of growth, hormone of sex like estrogen influenced bones characteristics, namely eversi cristailiaca, so the flank was bigger. Olivier (1969) also added that actually the shoulders growth practically stopped in this age. Both of them agreed that someone's acromiocristalis index above 30 years old actually almost did not change anymore.

This research aimed to describe and explain the variation index of pygmy Rampasasa sample, lived in Rampasasa orchard, Manggarai village, Waerii subdistrict, Manggarai district, Flores Island, Nusa Tenggara Timur Province. This population became famous not only because the pygmoid which was the average of men's height less than 150 cm, either in news or knowledge world, but also because it related to the discovery of human skeleton indicated as new species *Homo floresiensis* that was antiquity about 95 -12 thousand years ago and from the Liang Bua cave archaeological site that was only about 3 km in the north part of their settlement (Jacob, 2006; Jacob et al., 2006). The argument about skeleton finding and the paleanthropologist-archeologist context (Brown et al., 2004; Morwood et al., 2005; Jacob et al., 2006; Argue et al., 2007; Eckhardt, 2007; Falk et al., 2007; Henneberg, 2007; Martin, 2007; Thorne & Henneberg, 2007; Tuttle & Mirsky, 2007) was out of the purpose of this research. As the comparison, some research results of acromicristalist index done by some researchers with the sample from population would be used. Description of society, environment and culture of Rampasasa were presented to give nuance in sharpening and deepening interpretation on the analysis results.

Material and Method **Rampasasa Society**

Research material was taken from a part of anthropometric data of Somatometric Research project and somatoskopi of Rampasasa Pygmoid population done by researchers

team of Bioanthropology and Paleanthropology, Anatomy of embryology and anthropology, medical faculty, Gadjah Mada University in April 2005 and 2007. The material meant was 137 people, consisted of 59 men and 78 grown up women, 16-95 years old, and they were stated healthy and fulfilled the requirement as sample. Measurement was done at 9.00AM until 04.00 PM, to eliminate diurnal influence (Saxena, 1984). Biacromiale and biiliocristale measurement used spreading caliper GPM Swiss. Subject position during measurement was signaled in anatomy position of Frankfurt's plane.

Rampasasa people were Manggarai ethnic (Lebar, 1972; Koentjaraningrat, 1993; Toda, 1999). There were 3 sub tribes (*wau*) namely Ntala, Tukek and Lao (Suriyanto, 2005). Rampasasa was located in 8 degrees 32'133" south latitude and 120 degrees 27'10" east longitude with 583 m of height and the average temperature in the morning was 29 degrees Celsius. Administratively, this village was in Waemulu village, Waerii sub district, Manggarai district. The location was about 17.36 km north part of Ruteng city, the capital of Manggarai district; and about 18 km from the nearest north sea line that faced Flores sea, also about 46, 8 km from the nearest south sea line facing Sawu sea. The width of this village was about 200 acre, which the biggest part was field and garden, and only 10 % was settlement, surrounded by lime range of hill and forest. The biggest part of the land was cistern farming without technical irrigation, so it was such an irrigated agricultural field. Dry season lasted from April to October and rainy season lasted from October to April.

When this research was doing, the number of Rampasasa people was 207 people with composition 130 women and 77 men, the density was 100 people per km square and the growth was 2.56% per year, also about 80% grown up men had normal height body less than 150 cm. Therefore they were categorized pygmi. If the height was 150-155cm, they were categorized in pygmoid (Jacob, 2006). The big number of women was caused they had culture with the marriage system and virilokal (kilo) kinship. They lived around the traditional house (*mbaru gendang*). Most houses there (around 90%) were nonpermanent houses, that was house walled with lath or plaited bamboo, with floor land and coarse grass as the roof (*rii*). Their settlement had not facilitated with electricity and clean water, and the roads in *mbaru gendang* were still land pathway. They cooked by using firewood and for lighting in the night they used oil lamp. The water for cooking, drinking, taking a bath and washing was got from river Waemulu included the water for livestock and the plants. The water need during rainy season was adequate from water drum around their houses. The number of the houses was 53 houses dwelled by 76 household heads.

Rampasasa people were farmers with cistern system field. Their fields (*lingko randang*) were rugs on lime hills, alternated with rocks sticking up the surface. These lands were fertile on the surface; because the hara substance was so poor, the proper agricultural plant was only the short age plants. Rainy season lasting from October to April was cultivation time and the highest intensity was from December to April because the rainfall was routine. The plants included food plants that were commonly their daily consumption. They were corn (*zea mays*), cassava (*manihot utilissima*), sweet potato (*ipomoea batatas*), gourd (*curcubita pepo*) and kidney bean (*phaseolus vulgaris*). These plants were harvested as the family need or the kilo. The rest was food stock for food supply in famine season and it was kept in rice barn (*langkok*) and the field house (*uma*). Commodity plants were farmed in the yards around their houses because of economical and caring reasons. The plants included coffee (*coffea canephora*), coconuts (*cocos nucifera*), cacao (*theobroma cacao*), vanilla (*vanilla planifolia*), bananas (*musa paradisiaca*), cashew fruit (*anacardium occidentale*), and cloves (*syzygium aromaticum*). These plants could be sold to get money, and could also be bartered with other needs, like rice, sugar, and salt. The first one could be done intensively in the last 10 years since the roads and transportation connecting villages and sub district with Ruteng, the capital of Manggarai district were opened.

Generally, the daily consumption of Rampasasa people could be drawn as followed:
 1) in the morning around 06.00-07.00AM, they usually consumed cassava or boiled sweet potato, or sometimes corn porridge and rice, also drank coffee or tuak (fermented coconut palm drink, *borassus flabellifer*); 2) in the afternoon around 12.00AM-01.00 PM, commonly done in the field, they consumed rice and vegetables soup (leaves from their field plants) and

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drank coffee or fresh water; 3) dinner around 07.00 -08.00 PM, usually not different from the lunch menu; 4) coming back from lading, around 04.00 -05.00 PM, they usually ate cassava or sweet potato and drank coffee or tuak while taking a rest and discussed something with the family and neighbors. It was the recreation medium and mingled with society. Almost all grown up people always chewed betel routinely in the spare time. This activity kept doing especially when chatting, accepting guests, parties and ceremonies. They were limited consuming meat and livestock product, which was generally cow (*Bos sp.*), goat (*Capra sp.*), pig (*Sus sp.*) and chicken (*Gallus sp.*), and egg. They only consumed meat in traditional ceremony, religions celebration and wedding parties and mourning.

Their treatment and therapy still depended on ethnopharmacology and ethnomedicine. This activity could be done privately and with the family; however if the condition was terrible, they asked traditional healing (*ata mbeko*) that also had function to guide and as facilitator in ceremonies and local ritual as the mediator to God (*Mori Kraeng*) and ancestor spirit (*Empo, Andung*) and supernatural creatures that took care their surroundings (*naga golo, naga tana, ata pelesina, darat*). Pregnancy treatment and giving a birth were done by the sisters from the husband's side.

Their ethnohistoric stated that they were from Paju main clan (*wau*) that was the jungle man of Liang Bua. They did exodus to Rampasasa when there was a great long war between Cibal kingdom and Todo. This region was the boarder of the two kingdoms, considered the safest one. They were from Teras orchard, Liang Bua village, about 3 km from the present orchard. This Teras was located in a hill where Liang Bua was, and about 1 km from cave. They were also stated that they were from 3 wau namely Ntala, Tukek, and Lao that the descendant lived in *mbaru gendang*, as the heir of traditional orchard.

Marriage in Rampasasa was one of the important collective social events. Ideally, marriage did not only manage the bride to be (*anak wina*), and the groom to be (*anak rona*) but also managed the big family (*kilo*). The decision in their maturity was also managed by custom. A girl could be said grown up if the parents permitted her to eat betel (*cepa*) and gave a set of weaving (and plait) instrument. The grown up girl was about 15 -19 years. A male could be said grown up if the parents had permitted him to smoke (*rongkok*) and drank *tuak* (*inung tuak*) and gave a private short machete (*selek kope*). This grown up male was about 17-22 years old. The smallest and the most effective kinship group was *kilo* which collectively-virilocally had and kept the house, garden and field. They felt as member descended from generation to generation patrilineally. These Mbaru and Linko *randang* were 'together' property.

Environment condition, land ownership, inheriting and competition among clan groups above appeared a cultural strategy which was known *tungku* marriage which was considered ideal until now. Marriage system was an effort of rational economic and political strategy; first, asset lands were fields, gardens, houses were hoped not to be taken by outsiders because these assets were owned by big family (*kilo*); second, the effort to avoid high brideprice expense (*paca*); third, strengthened wau by decreasing the tension and conflicts among the big family members of parents and maximized the ability of the members. In finding the match for their children, Manggarai people in Rampasasa would always try to find the match who was ideal based on the custom, that was marrying off the son with a daughter of her mother's or relative's brother. This marriage did not need big *paca* because this was only considered as proforma requirement. The relationship between *anak wina* and *anak rona* was also loose, just like in their families. Another thing that made *tungku* marriage be come a choice was the rule of their patrilineal custom. It meant that the women who got married with the men from out of *wau* or orchard had to leave the family. To avoid this case, they sometimes tended to get married with the people from the same community. However, nowadays there were some people decided to get married with people from out of their community. It could not be apart from the more open this isolated orchard, and the attitude of parents who emphasized the match of bride and groom. Around 90% Rampasasa people were relatives. So *tungku* marriage as the form of this relative endogami had a role in preserving pygmoidisasi among the people. Population that tended to be isolated geographically and culturally was relatively easy to do incest marriage. This marriage if it was counted

mathematically might find homozygote in 1/16 %; while further the opportunity could be 1/125%. In brief, if this event lasted continuously, it was possible that pygmoidization would be still everlasting.

Measure and Measurement Method

Acromiocristalis index was the comparison of flank width and shoulder width (biocrystal and biacromial) multiplied by 100 (Olivier, 1969), and commonly called body width index. Therefore acromiale and iliocristale point had to be known first (Wilmore et al., 1988; Norton et al., 1996). Acromiale was the most lateral point and acromialis processus superior, between anterior limit and Deltoid muscle posterior if it was seen from side. To know the location, researcher stood behind the subject with left hand touched around scapula until the corner of acromion. Acromion lateral aspect could be signed with pencil to make sure the location. This clue was the most lateral point and the tip of superior separated on the mid-deltoid position if it was seen from side. Iliocristale was the most lateral point of iliaca caput aspect on the line of ilio-axilla.

To know its position, the right hand of researcher was placed horizontally on course lateral. Its point determination, the most lateral tip of superior ilium used right hand; while left hand stabilized the appliance from displacement. As acromiale, iliocristale could also be marked by the pencil to affirm the location.

Shoulder (biacromial, a-a) was apart between the 2 most lateral at the edge of lateral processus acromialis scapulae. With the second finger and third, the distance of the two acromiale were measured precisely. Flank (bicristal, biiliac, ic-ic) was apart between 2 points of lateral crista iliaca. With the second finger and third one, external periphery of crista iliaca was searched and measured at the most lateral. Measurement was conducted by using spreading caliper and the subject position stood upright (Frankfurt's Plane) (Glinka, 1990; Marfelljones, 1996; Glinka et al., 2008)

Data Analysis

The data analysis used the descriptive statistic to depict general circumstance of index to the acromiocristalis sampel of people of pygmy Rampasasa. The data analysis also used the D/md test or 3D test (Glinka, 1991). Godycki stated this test was very sensitive and we did not require any tables to determine its meaning.

The formula: D/md , where

$D = (X_1 - X_2)$ or absolute difference between the two average values; and $md = \sqrt{(m_1)^2 + (m_2)^2}$, by m_1 and m_2 was standard error of the two groups. Condition which had to be fulfilled was if $D/md > 3$, hence difference between the two average values had a meaning; and if $D/md < 3$, different hence did not have a meaning; and also $D/md = 3$, hence could not be told something about the difference (Glinka, 1991). This analysis could also be conducted by T-Test based on the computer. Other analyze used correlation test between the age and its acromiocristalis index.

To obtain the more complete, deep and sharp interpretation from morfometric data analysis, the cultural and environmental background data of resident Rampasasa was used. This effort was also done by referring the researches which had been conducted by some researcher from some race crossing samples, environmental and condition socio-cultural condition.

Result and Discussion

This research subjects were 16-95 years. Table 1 showed the men index acromiocristalis was range from 47, 77-90.22 cm with the mean 71, 73-76, 79 cm; while the woman range from 69, 15-101, 53 cm, with the mean 84, 54-68, 69 cm. Individually, this fact indicated that this value varied because there were a lot of factors having an effect for example race, sex, flank growth, degree of fat hoard and figure type (Olivier, 1969).

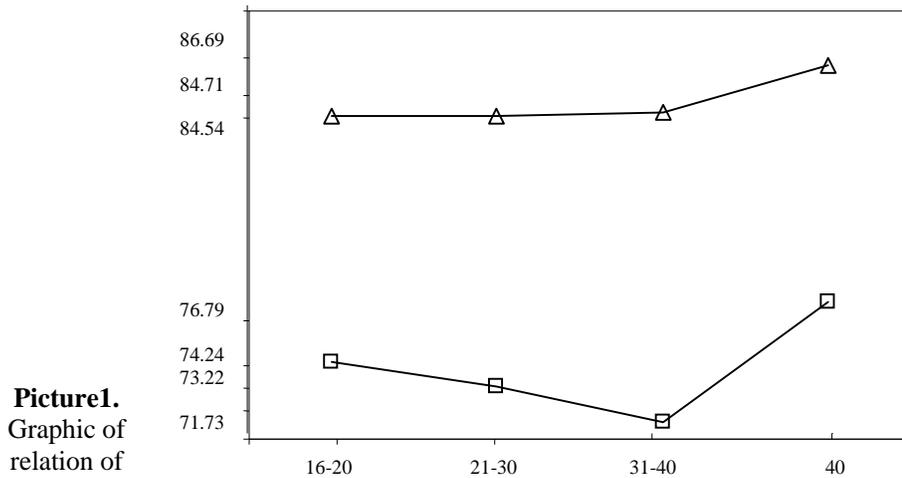
Rampasasa people had the acromiocristalis index which relatively declined at about 16-30 years for the men and tended to stagnant for women, and hereinafter the older the people were, the index would increase although it was not very real (Table 1, and picture 1).

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Human being had the tendency that flank growth would desist at 16 years old or if entering 17 years; this matter happened because hormone of growth and hormone of sex like estrogen influenced the bone characteristic, namely eversi cristailiaca. Therefore the flank width grew bigger (Bayley & Tuddenham, 1944). This index had tendency to go up to those whose age were more than 30 years old because wide growth of the shoulder had desisted the (Olivier, 1969). They compromised that in fact the index at somebody who was more than 30 years old almost did not change again. The correlation between index acromiocristalis index and age showed very weak after 21 years old, either to the men or women; even the age addition was not followed by the accretion of index value. This fact could also be influenced by the degree of its fat hoard, although very finite. The ones with slim bodies could be influenced by environmental condition, physical activity and the nutrient consuming.

Table 1
The relation of index Acromiocristalis value and the age of Pygmy Rampasasa sample

Age (year)	Women						Men					
	N	X	SD	SE	min-max	r	N	X	SD	SE	min-max	r
16-20	13	84,54	6,38	1,77	76,95-101,53	-0,63	7	74,24	3,45	1,30	71,52-81,61	0,48
21-30	20	84,54	5,16	1,15	78,66-100,32	-0,09	15	73,22	5,28	1,36	63,17-82,52	-0,10
31-40	19	84,71	6,25	1,43	69,15-94,74	-0,03	11	71,73	3,82	1,15	64,66-75,00	0,44
41	26	86,69	6,06	1,19	74,84-98,13	-0,09	26	76,79	8,72	1,71	47,77-90,20	0,01



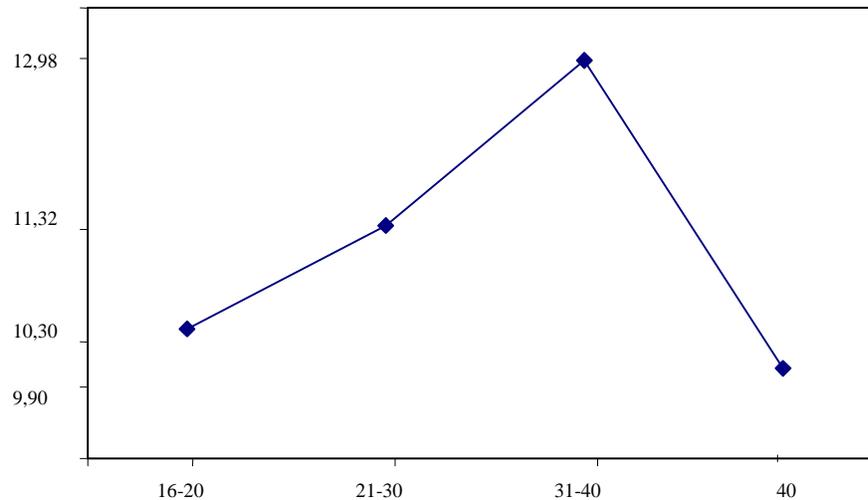
Picture 1.
Graphic of relation of index

Acromiocristalis value and the age of Pygmy Rampasasa sample

Table 2.
The difference of Index Acromiocristalis value between men and women in any Sample

Location	Women	Men	Defference
Dogon (Afrika) (Husinga & Birnie-Teller, 1966)	73,9	69,60	4,30
Perancis (Oliver, 1969)	83,00	74,00	9,00

Jawa (Yogyakarta) (Suyanto, 1978)	75,54	70,37	5,17
Seram (Maluku) (Suriyanto&Koeshardjono, 1999)	77,01	68,11	8,90
Rampasasa (Flores)	85,30	74,64	10,66



Picture 2.

The relation of difference of Index Acromiocristalis value between men and women Pygmy Rampasasa

People Rampasasa made the acromiocristalis index (table 2) above French sample, where the men were 74,00 and the women were 83,00 (Olivier, 1969). Index value at women was still above Dogon sample, namely 73,90 and Java sample in Yogyakarta, namely 75,54; and the men had a bit of higher than the women, namely at Dogon sample was 69,60 and Java was 70,37 (Huizinga & Birnie-Tellier, 1966; Suyanto, 1978). Index value of the acromiocristalis pygmoid Rampasasa did not differ far with the research result of *Seram* sample (Suriyanto & Koeshardjono, 1999), where the men were in category of intermediate trunk and the women were in rectangular trunk category with the index sexual dimorfisme was very real. Radiologically, This result was not surprising because the two samples represented the Australomelanesoid population in the east area of Indonesia (Jacob, 1967, 1974, 2006; Suriyanto, 2005; Jacob Et al., 2006). This fact showed the polimorfisme and politipisme of Australomelaneid in the area. Actually this value was higher and closer to French sample, of course non contiguity racial, but it was traceable from the result of flank growth, degree of fat hoard and posture type.

Fluctuation pattern of index acromiocristalis could be noticed at table 1 above. The men showed to decline from 16 years to 30 years while the women were stagnant. Either men or women in fact did not show the increase as the increase of age after 30 years old. If the first was from intermediate trunk to rectangular trunk, the second one was always static, rectangular trunk. Pattern of Rampasasa men showed the index increase after 40 years old, which could be caused by the decrease of the degree of fat hoard on the shoulder. The pattern of Rampasasa women showed there was no the increase of index after 16 years. The result of Bayley & Tuddenham (1994) research and Olivier opinion (1969) could be valid for the Rampasasa women.

The Relation between age and the index of acromiocristalis sample pygmy Rampasasa to both sex showed weak correlation (table 1). The same result was showed although it had been divided into the age group that was less and more than 30 years old (for the men of $r = -0,11$ and $r = -0,24$; and women of $r = -0,15$ and $r = 0,06$). Picture 1 above showed age increase followed by the increase of index acromiocristalis value after 30 years old. Dimorfisme Sexual of pursuant to this index difference indicated that until 30 years, its

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value was getting bigger; conversely, it tended to decline after 30 years old (picture 2). This result did not differ far from Seram (Suriyanto Koesharjono, 1999), because this fact, as mentioned at previous paragraph, they came from the same race; so of course it showed the growth pattern which was relatively equal to both anthropometric sizes which were searched. Grimm & Hoppe (1969) and Suyanto (1978) got different result because they emphasized the research on children and teenagers, where the period of top growth lasted. Table 2 above strengthened this result. This Difference could be proven at the growth of the woman flank which was quicker than the growth of the shoulder, while the growth speed of men's shoulder and flank was relatively the same. Either using T-Test or using D/Md test, It showed the very meaningful difference between the sexes ($p < 0,01$ and $D/md > 3$).

Category of the index acromiocristalis value (table 3) showed that generally pygmy Rampasasa men were trapezoidal trunk and intermediate trunk although there was tendency that along with the addition of the age, they became rectangular trunk. As a whole, along with the age accretion, the women had rectangular trunk; and the trapezoidal trunk decreased. Ontogenesis and dimorfisme sexual had big role here. Olivier (1969) affirmed that based on this index, the men had trapezoidal trunk while the women had rectangular trunk. Another Category according to Bayley & Bayer (1946) placed Rampasasa men in masculine group and the women in feminine and hyperfeminine group.

If paying attention again on table 1 and table 2 above, as it had been emphasized by Olivier (1969) that level of this difference of index between sexes could be used as the indicator whether the population resided in the in poor country/ developing or rich country. For Dogon, Java and French samples it could be concluded like that, but it was hard for Seram and Rampasasa. Sexual Dimorfisme showed relatively very real in society with simple of level of subsistence and environment which was still relatively isolated. A Rational Argument could use perspective of cultural ecology namely genetic adaptation toward ecological factor, social, economic or traditional working division sexually and pressure of nutrient during growth period. Frayer & Wolpoff (1985) underlined that this model often attended the conclusion that was still blurred because it had not been tested significantly, but still showed the application restrictively. They really admitted the existence of reduction in hominid sexual dimorfisme along with biological evolution and of its culture level growth

Rampasasa Population was Manggarai ethnic inhabiting lime hilly in north part of Ruteng City. Their Ethnohistoris explained migration journey, settlement and its culture. They were still relatively isolated ecologically and culturally with the regions around it, at least in the last one decade. Their subsistence still depended very much on the local resource. This limitation insisted them to maximize farm potency by working hard all year for food resilience, and developed the strategy of culture for protecting the limited assets, in the form of houses, gardens and fields. Accretion of Population with the farm width relatively remained to rationalize the economic need. They consumed limited nutrient, by majoring diet of agriculture product from the fields that was lack of element of hara and without irrigation and also finite crop manner. Pattern and food consumption, like mentioned before, clarified more this description. The Need of clean water still depended on rainwater and water from river Waemulu that was around 1 km north side the settlement. The Ethnomedician and ethnopharmacology therewith its belief and rituals were still the main knowledge source to find medication, healing, treatment, and giving a birth.

Rampasasa Population also followed patrilineal system. This System was also the breath in its culture which was easy to be noticed from pattern of matching and marriage, division of work, heritage, local authority and its settlement. *Tungku* marriage assumed to be ideal until today was the product from the cultural strategy to respond the environmental situation, farm ownership, endowment and competition among the clan groups. This Condition was reflected by around 90% residents who were relatives. About patrilineal relationship and the pattern of health-disease had been checked in archaeological context at the period of Final Classical Maya in Copan, Honduras (Storey, 1996).

The facts opened opportunities of pymoidisasi possibility which still lasted relative long in this community. The mean of adult Men height was 148.84 cm and the weight was 43.94 kg; and the adult women were 142.97 cm and the weight was 39.78 kg. Biacromiale

was usually apart 33.32 cm and biiliocristale was 24.79 cm for the men, while for the women successively 30.17 cm and 25. 69 cm. The Biological characteristics could enrich the knowledge and its application in human being biology, especially in this research related to the acromiocristalis. Pygmy population was limited to meet now; they were Negrillo in Africa, Negrito in Peninsula Malaka, population in Andaman and Aeta in south Philipina.

Table 3
Sample Pygmy Rampasasa Based on index Acromiocristalis value (Oliver, 1969)

Age (year)	category	Sex	N	%
30	Trapezoidal trunk	Women	0	0,00 %
		Men	3	100,00 %
	Intermediate trunk	Women	0	0,00 %
		Men	13	100,00 %
	Rectangular trunk	Women	33	84,62 %
		Men	6	15,38 %
31	Trapezoidal trunk	Women	1	16,67 %
		Men	5	83,33 %
	Intermediate trunk	Women	2	12,50 %
		Men	14	87,5 %
	Rectangular trunk	Women	42	70,00 %
		Men	18	30,00 %

Conclusion

This Research aimed to depict and explain the variation of index to the acromiocristalis sampel pygmy Rampasasa, living in Orchard or Kampong Rampasasa, Waemulu village Waerii sub district, Manggarai district, Flores island, Province of Nusa Tenggara Timur. Result of research to this index showed they were different from the people of Dogon (Africa), Java (Yogyakarta) And French (Europe), that successively could deputize the Negroid race, Mongoloid and Kaukasoid; and they did not differ from *Seram* people (Maluku) that had Australomelanesoid characteristic. So me sharing factors for example: flank growth, degree of fat hoard, posture type, sex and race. Shortly, biology of human being and environmental (abiotis, biotis and socio-cultural) interacted. Disregarding one of them could blunt the sharpness and made shallow the deepness of analysis.

Writer suggested do this anthropometric research at clans in this country with various environment backgrounds. This research was also still limited to be conducted and publicized in this country. Result of this research could render, not only for collecting antropometris data, but also enriching the knowledge and application in human being biology from the locations.

Project of somatometri and somatoskopi research on pygmoid Rampasasa population, was peculiarly expected to draw the enthusiasm of all academicians and researchers to conduct the research from medical aspects, for example checking growth hormone at children of pygmy population, disease endogamy diseases etcetera; and reciprocal of the society socio-cultural with the human being biology completely and holistically.

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