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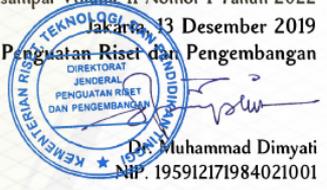




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Investigating the Richness of Archeological Data of Megalithic Culture in Iyang-Ijen Plateau to Develop Local History Learning Material

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ABSTRACT

This research focused on attempting to solve issues regarding the distribution and typology of megalithic culture traces in the plateau of Iyang-Ijen along with its chronology. This study aimed to discover the richness of archeological data within the area to develop local history learning material that contextual and valuable, both in higher education or in schools. The study was performed using historical method with historical archeology approach. The results and discussion indicate that the width of cultural trails of megalithic culture in Iyang-Ijen plateau covered 82 villages and 34 sub-districts. The exact amount of archeological remains are 1.767 items. The typology itself are 21 types. The timeline of appearance and development of megalithic culture within Iyang-Ijen Plateau occurred since V – XV AD and lasted about XVIII – XIX AD.

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INTRODUCTION

Geographically, Iyang-Ijen plateau is a region stretched between Ringgit-Beser, Iyang mountains with the highest peak of mount Argopuro, Ijen volcano mountains with the highest peak of mount Raung, and south mountains (Prasetyo, 2008). The spread of megalithic culture within Iyang-Ijen plateau initially was identified into three location that nowadays registered as Situbondo, Bondowoso, and Jember districts administrative (Sukendar, 1981/1982; Soejono, 1986; Prasetyo, 2000b; 2000c; 2012). However, recently the distribution of locality has added one more location, namely Banyuwangi

district. This is recognized according to Balar Yogyakarta research in 2016 and 2018 in Malangsari sites which located in Mulyosari afdeeling, Malangsari, Kebonrejo village, Kalibaru sub-district. Once, the four localities spread of megalithic culture in Iyang-Ijen plateau were part of Besuki administrative region. Referring to this historical foundation, people of megalithic culture in Iyang-Ijen Plateau by Prasetyo (2012) are called as “Besuki megalithic community”.

Megalithic culture in Iyang-Ijen plateau is located in strategic spot in term of megalithic culture spread within Java in general and East Java in particular. The cultural strategicity lays in 20% of megalithic sites found in Java and 33,33% based on megalithic sites found in East Java, occupying a region in the edge of eastern part of Java (Prasetyo, 2008). Despite, it is unfortunate that the ample of archeological data of megalithic culture were not yet being understood properly by many people. Including history educators, whether in higher institution or in schools within four location of localities of megalithic distribution. Why so? First, megalithic culture in Iyang-Ijen Plateau so far has not received the proper concern upon Indonesia historiography. The main reference of Indonesia history *The National History of Indonesia series (particularly the first series: Prehistory of Indonesia)* – that become the primary reference from lower education to higher education – only exposes a single paragraph to discuss Iyang-Ijen megalithic culture. The spread of locality being spotted is only two (Jember and Bondowoso); while the other two localities are not (Situbondo and Banyuwangi). Second, data accessibility towards megalithic culture in Iyang-Ijen plateau is considered rare. In addition, data accessibility for commoners are considered difficult. Even the data regarding the megalithic culture of Iyang-Ijen plateau is finally found, mostly are data version that each version is not always match, even contrary one and another.

The thematic scope of this research focused on issues namely: (i) the distribution and typology of megalithic culture of Iyang-Ijen plateau region; and (ii) the chronology of megalithic culture of Iyang Ijen plateau region. The spatial scope is limited to the three main localities of megalithic culture spread, namely Situbondo, Bondowoso, and Jember. Bagyo Prasetya (2000c) mentions the three main localities as *Bersituwoso* as the acronym of Jember, Situbondo, and Bondowoso. The main goal of this study is investigating the richness of archeological data of megalithic culture in the eastern edge of Java using the variation and distinctiveness. The data is very essential to develop local history learning material that contextual and meaningful both in higher education and schools.

METHODOLOGY

The study was conducted using historical method with historical archeology approach. The research procedure are five stages, namely: (i) topic selection, (ii) resources collection, (iii) resources verification, (iv) interpretation, and (v) historiography (Kuntowijoyo, 2013).

Study resources were collected using documentation technique, which was utilizing several writing documents in terms of books, research reports, publication, and etc. Interpretation was performed using textual hermeneutics (Magetsari, 2016).

RESULT AND DISCUSSION

The width of megalithic culture distribution of Iyang-Ijen plateau covers 82 villages and 34 sub-districts. The definitive number of megalithic culture in term of sites are unknown due to the differences among data that was hardly matched, especially since there were several standardization of names and the restrictions of megalithic culture legacy being used. However, the definitive number of megalithic culture in the the sense of archeological legacy being found is 1.767 items.

Tabel 1. The Distribution of Megalithic Trails in Iyang-Ijen Plateau Region

LOCALITY	SITES	HAMLET	VILLAGES	SUB-DISTRICTS	ΣTA
Situbondo	-	19	14	8	90
Bondowoso	-	-	53	16	1.241
Jember	-	14	15	10	436
TOTAL	-	-	82	34	1.767

Details :

ΣTA Total number of archeological legacy being found

- Data is unavailable

The traces of megalithic culture in the form of archeological legacy within Iyang-Ijen plateau is recognized with 21 types. The spreading level of each type of archeological trails is varied. In addition, it is also varied in term of density.

Presented data in table 1 – table 2 showing that megalithic culture of Iyang-Ijen plateau region in term of factual-empirical are more flourish in the middle area (Bondowoso) compared to the north one (Situbondo) or even in the south (Jember). This is obviously seen upon the distribution proportion level, numbers, and variation of archeological traces of megalithic culture in Bondowoso that beyond the other two localities. The spreading level proportion of villages and sub-districts in Bondowoso recorded 64,63% and 47,06% from villages and sub-districts in total that distribute towards Iyang-Ijen plateau. In Jember, the proportion is known for 18,29% and 29,41%, while in Situbondo the proportion is only 17,07% and 23,53%. The proportion of archeological trails of megalithic culture in Bondowoso is 68,68% from total archeological remains of megalithic culture in all parts of Iyang-Ijen plateau. Jember has 26,03% proportion and Situbondo locality only gains 5,37%. The variation proportion of archeological remains of megalithic culture in Bondowoso is 76,19% from total number of archeological remains in all over Iyang-Ijen plateau. Situbondo locality has proportion of 52,38%, while Jember locality records only 33,33%.

Table 2. Types, Spreading Level, and Density Level of Archeological Trails of Megalithic Culture in Iyang-Ijen Plateau Region

TYPE	LOCALITIES AND FREQUENCY			ΣTA
	SITUBONDO	BONDOWOSO	JEMBER	
Platform stone	6	647	156	809
Dolmen tomb	0	230	254	484
Sarcophagus	51	193	1	245
Stone mortar	14	48	2	64
Menhir	3	46	9	58
Stone chamber	0		0	
Rock-chamber burial	0	39	0	39
Monolith	0	23	9	32
Lesung stone	0	3	5	8
Altar stone	6	0	0	6
Statue	0	4	0	4
Stone terrace	3	1	0	4
Stone seat	0	3	0	3
Phallus stone	3	0	0	3
Dolmen	1	1	0	2
Stone enclosure	0	1	0	1
Stone-cist	0	1	0	1
Stone veneration	0	1	0	1
Hole stone	1	0	0	1
Pit marked stone	1	0	0	1
Well stone	1	0	0	1
TOTAL	90	1.241	436	1.767

The impressive development of megalithic culture in Bondowoso is encouraged by several factors. First, geographical sense that it is located quite remote in inland. Second, geologically, Bondowoso region is the meet point between Iyang mountains complex and Ijen mountains complex (Prasetyo, 2008). The west side of Bondowoso is east part of Iyang mountains complex with highest point of mount Argopuro, while east side of Bondowoso is part of Ijen mountains complex with highest point of mount Raung. Bondowoso location is quite remote upon inland and between two huge mountains complex. In one hand, it had made it as the inner locality and isolated compared to other localities within Iyang-Ijen complex. However, in the other hand, this inner place and isolation had made Bondowoso became the condusif and strategic dwelling. Bondowoso location is located in the inner spot had allowed megalithic culture to flourish and develop without significant distruption from the outside. The rare of external distruption might also be caused with the existence of two major range of mountains that stand strongly in west side (Iyang mountains complex) and east side (Ijen mountains complex) as the natural barrier.

This particular findings of megalithic culture in Bondowoso mostly similar to Tana Toraja dan North Toraja. Much like Bondowoso, both Tana Toraja and North Toraja are considered interior compared to other localities in South Sulawesi region. The people of Tana Toraja dan North Toraja commonly settle in the hilly area or mountains, as made it uncovenient to make interactions towards other communities. However, this remotely place that had allowed megalithic culture could grow and flourish in Tana Toraja dan North Toraja. Furthermore, they had maintained the culture from external influence. Even today, the people of Tana Toraja and North Toraja still do performing megalithic culture rituals, such as death ritual along with menhir construction (Hasanuddin, 2015).

Despite two other factors mentioned before, megalithic culture development in Bondowoso is also influenced by other supporting factors. One of which is environment resources in term of land capability, stone availability, and accessibility. Bondowoso has 6 soil types; one of which has the widest spread (78.286,56 ha) is regosol (BPS Kabupaten Bondowoso, 2012). Regosol soil is derived from volcano dust that transforms and obtains proper fertility level. Nevertheless, geology unit of Bondowoso at least possesses at least 11 soil types of stone formation; one of which has the widest spread is the stone of *Gunungapi Raung Muda* (Prasetyo, 2008). This stone formation is the result of mount Raung explosion and obtains the tif breccias of pumice that becomes the sources of breccias stone formed of andesite and lava.

Natural resources potential in term of soil capability (fertile regosol soil) in Bondowoso seems provide guarantee for community of megalithic culture to maintain the survival skills, cultural system, and social system. Natural resources in term of stones availability along with its accessibility of locality had allowed people of megalithic culture to actualize their cultural system (ideas, thoughts, and values) into material culture. It could be seen from all archeological legacy left of megalithic culture in Bondowoso that were made of stone available in the adjacent area such as breccia volcanic and andesite (Sumarjono, at al., 2018).

Chronology

Megalithic culture chronology of Iyang-Ijen plateau region could be interpreted based on four main sources of data (Prasetyo, 1999; 2000b; 2000c; 2008). First, the data of absolute dating upon person who associated to stone mortar in Bayeman sites (Arjasa sub-districts, Situbondo). Second, the data of absolute dating towards burning trails (charcoal) that associate with dolmen tomb in Dawuhan (Suco Lor Sites, Maesan sub-district, Bondowoso). Third, the data of absolute dating of cylindrical stone in Pekauman sites (Grujugan sub-district, Bondowoso). Forth, the data of absolute dating of burn traces (charcoal) findings that associate with a pot found in adjacent towards dolmen tomb in Duplang hamlet (Kamal sites, Arjasa sub-district, Jember).

Table 3. The Absolute Dating of Megalithic Sites in Iyang-Ijen Plateau

NO	LOCALITIES	SITES	SAMPLE	CONTEXT	CHRONOMETRIC
1.	Situbondo	Bayeman	Charcoal	Stone mortar	1250±240 BP (cal. V – X AD)
2.	Bondowoso	Suco Lor	Charcoal	Dolmen tomb	1230±100 BP (cal. 684 – 887 AD)
		Pekauman	Charcoal	Cylindrical stone	840±200 BP (cal. 992 – 1306 AD; 1363 – 1385 AD)
3.	Jember	Kamal	Charcoal	Dolmen Tomb	580±100 BP (cal. 1297 – 1374 AD; 1376 – 1422 AD).

According to the absolute dating above, it could be formulated three interpretation regarding megalithic culture chronology of Iyang-Ijen plateau. First, the timeline of appearance and the development of megalithic culture of Iyang-Ijen Plateau in term of factual-empirical is between V – XV AD. Second, the chronology of megalithic culture of Iyang-Ijen Plateau in the sense of national temporal history or in the sense of locality history time limitation, factually and empirically is proven did not occur during prehistoric era, but already in history era. As we know, Indonesian national history time began in about 400 AD (V AD). This time limitation referring to the results

of inscriptions iconography analysis of Mulawarman king (Kutai, East Kalimantan) and king's inscription of Purnawarman from Tarumanegara kingdom (Bogor, West Java). However, the temporal timeline of history era of Iyang-Ijen plateau locally could be identified as early as V – VIII AD. This time limitation referring to the results of inscription iconography analysis upon Watu Gong in Jember. Watu Gong is the oldest writing document found in Iyang-Ijen plateau until today. Third, the variation of years upon the absolute date of each megalithic site indicates that megalithic culture chronology in three localities of Iyang-Ijen plateau are varied. Situbondo's megalithic culture chronology in the sense of factual-empirical is identified as the oldest (V – X AD); followed by Bondowoso (VII – XIV AD), and Jember is the last (XIII – XV AD).

The chronology differences of megalithic culture in three localities of Iyang-Ijen plateau is significantly important to be investigated. The empirical facts regarding chronology differences are not just numerical sense, but also indicating the movement pattern of megalithic culture spreading within Iyang-Ijen plateau. Logical-chronological, the movement pattern started from North, which is Situbondo east part (Bayeman Sites in Arjasa subdistrict, V – X AD), then moved forward to South (Bondowoso, VII – XIV AD), and kept moving to Jember in north and east side (XIII – XV AD). Situbondo geographical location in north coast area is indeed had allowed the place to be migration entrance of megalithic culture community and together the first appearance and the development of Iyang-Ijen plateau before distribute to hinterland through land and headed to south which is Bondowoso, then continued to north and east side of Jember; then the distribute pattern moved to the east towards Banyuwangi west side (Balar Yogyakarta, 2018). According to human migration to Java island, Java north coast is a strategic shore and very vital. It is considered that in north Java coast, the first colony (landing) of Austronesia tribe as the supporters of square axe started until became the pioneer or ancestors of Java ethnicity (Noerwidi, 2012).

Another probability is the movement pattern of megalithic culture in Iyang-Ijen plateau region that is argued by Balai Pelestarian Cagar Budaya/BPCB of East Java. The BPCB East Java argues that it was began in west side of Situbondo (Patemon village, Bungatan sub-district), then moved and distributed to east towards Bondowoso through tunnels between Bondowoso and Situbondo mountains. Started from Bondowoso, the spread movement continued to south towards Jember of north and east side, and ended in west side of Banyuwangi. BPCB East Java interpretation is based on some indication found during investigation of sarcophagus distribution in Patemon village (Bungatan sub-district, Situbondo) in 8-9th May 2018. Some indication namely: (i) single sarcophagus domination, (ii) sarcophagus technique is considered rough, (iii) had not yet selected the proper material in building sarcophagus, and (iv) Patemon village location are not quite remote from Java Sea.

Relating to the chronology and the movement pattern of megalithic culture of Iyang-Ijen plateau, the findings and inscription in the sense of Hinduism in Jember – Watu Gong inscription (Kaliputih, Rambipuji Village, Rambipuji sub-district) and Congapan inscription (Congapan, Karangbayat Village, Sumberwaru sub-district) – are interested enough to be investigated. Watu Gong inscription was written in Pallawa character and Sanskrit language. The content about *Parvvatesvara* (King of Mountain) which means *Girinatha* or Siva God. Himansu Bhusan Sarkar dates this inscription in

about V AD. This is according to the similarity style of Watu Gong character towards other inscriptions in West Java. Stutterheim dates it about VII – VIII AD. Stutterheim dates is referring to the similarity letter between *ta* and *ra* between Watu Gong inscription, Tuk Mas (650 AD) and Canggal inscription (732 AD) (Amelia, 2006). Therefore, the years interval of Watu Gong inscription is about V – VIII AD. Congapan inscription has type letter of Kediri kwadrat and composed of two parts writing (vertical and horizontal). The vertical writing by Stutterheim is read as *Sarwa hana* (everything is available) means *Dewa Sarwa* (Sarwa God) or Siva God. The horizontal writing by M. M. Sukarto K. Atmojo is read as *Tlah sanak pangilanganku* that he is convinced it as a chorogram means year 1010 Saka (1088 AD) (Kantor Pariwisata dan Kebudayaan Jember, 2012).

What is so interesting towards those two inscriptions in the context of chronology and movement pattern of megalithic culture distribution in Iyang-Ijen plateau? First, the chronology of megalithic culture of Iyang-Ijen plateau region (V – XV AD) factually-empirically is proven to be coincided with Hinduism culture chronology (V – XI AD). In other words, megalithic culture and Hinduism culture were once settled together. The two lived side by side, even possibly the two had mutual influence and mixed in acculturation frame of culture. The acculturation evidence of megalithic culture and Hinduism culture could be seen through archeological legacy, such as sarcophagus in the form of *nandi* – the symbol of Siva God – that seated and dated of 1324 Saka (1402 AD) in Selobanteng Sites (Banyuglugur sub-district, Situbondo) (Prasetyo, 1999; Hidayat, 2007); the archeological findings of megalithic culture in the form of terraces building located in the same complex with Parwati goddess – *çakti* of Siva God – and statue of *Dwarapala* inscription in mount Argopuro sites (Afriono, 2011). The statues shape are manifest of Majapahit Kingdom that tended to be static and stiff, the temple location and its orientation is *chthonis* and the implementation of terraces building of temple architecture, particularly temples during the end of Majapahit Kingdom era (temple complex of mount Penanggungan; Penampihan temple in mount Wilis; Cemoro Bulus terrace and Sukuh temple in mount Lawu) by many scholars as van Romondt, Quatrich Wales, Bernet Kempers are considered as clues and real evidence of acculturation process of megalithic culture and Hinduism culture (Soekmono, 1977; Munandar, 2018). Stutterheim even firmly states that all tendency of culture during Majapahit era as *javaniseringproses*, means revitalization and re-actualization of pre Hinduism which is megalithic culture (Mulia, 1977). Outside Java island, cultural acculturation between megalithic culture and Hinduism culture could also be found in Tanah Batak (North Sumatera). Here, the acculturation between megalithic culture and Hinduism culture is represented in the form of swan that to be chiselled on dust and bones container lid (*petulanen stone*). In Hinduism, swan is Brahmana's ride. The swan chisel within *petulanen stone* symbolically means as the release of dust and bones of people that contained in that *petulanen stone*. Second, the existence of Watu Gong and the Congapan inscription indicate that around the V - XI AD, the influence of Hinduism culture in southern and western Jember was quite significant. This fact may explain why after entering northern Jember (Jelbuk, Arjasa, Kalisat, Sukowono, and Sumberjambe) the movement of megalithic culture did not continue intensively to southern and western Jember. Instead, as shown by the distribution of traces of megalithic culture in the form of archaeological sites and remains, it continued eastward (Mayang and Silo) to the western part of Banyuwangi (Kalibaru and Glenmore).

The question when was the megalithic culture in the Iyang-Ijen plateau last? According to the absolute dating data on the Kamal Sites (Arjasa District, Jember) shows that up to the XV AD megalithic culture factually-empirically still remained within Iyang-Ijen plateau area. However, since then or maybe even since the end of the XIII AD, the existence of megalithic culture seemed had started to recede and was gradually pushed back by the growing influence of Hinduism culture. One indication of this is the finding of a *karsyan* building in Sukorejo Site (Sumber Wringin District, Bondowoso). On the walls of this building figures the year of 1216 Saka (1294 AD) are engraved (Kusdarjanto, 2020). Further indications are shown by the finding of two *karsyan* buildings in the form of a "hermitage cave" in Suling Kulon Village (Cermee District, Bondowoso) and terraces building on mount Argopuro (Situbondo). The *karsyan* building in Suling Kulon Village is thought to have originated from the late period of the Majapahit kingdom (around the XV - early XVI AD) (Munandar, 2018). Meanwhile, based on data of the relative dating based on *Dwarapala* statue inscription at the BBPA, the *karsyan* building on mount Argopuro is interpreted to have originated from the XV AD (Afriono, 2011).

The megalithic culture of Iyang-Ijen plateau area is thought to have ended around the XVIII – XIX AD due to the presence of the Madurese ethnic diaspora (Hidayat, 2007). During the VOC (Verenigde Oostindische Compagnie) period, they were deliberately brought to East Java after the cleansing of British merchants (EIC, English East India Company) who occupied Blambangan, Lumajang, and Malang areas in the end of the XVIII AD (Margana, 2012). At the end of the XIX AD, the migration encouraged the Madurese ethnic community to moved to East Java and especially to the East Java Edge was getting more intense and massive. Many Madurese ethnic communities were deliberately brought in from Madura Island to be employed in the sugar cane and tobacco plantations that were rife in East Java and especially in the Eastern Edge of Java after 1870 AD. According to Muhammad Hidayat (2007), ethnic diaspora of Madurese in the Eastern Edge of Java – including their descendants who currently dominate the region of Probolinggo, Lumajang, Jember, Bondowoso and Situbondo areas – were not people who supported the megalithic culture. In other words, they have absolutely no physical connection or inner bond towards megalithic culture. The presence of new beliefs and cultures brought by the Madurese ethnic diaspora community then quickly removed the megalithic culture which from the end of the XIII - early XVI AD had begun to recede to its extinction.

CONCLUSION

The extent of traces distribution of megalithic culture in Iyang-Ijen plateau covers 82 villages and 34 sub-districts. The definitive number of traces sites is unknown; The definitive number of traces in the form of archaeological remains found is recorded at 1.767 consisting of 21 types. The level of distribution and density of each type of archaeological remains of megalithic culture is varied. The archaeological remains with the widest distribution level are occupied by types of platforms stone, sarcophagus, stone mortars, and menhirs. The archaeological remains of megalithic culture with the highest density are occupied by the type of platforms stone.

The time span of the emergence and development of megalithic culture in the Iyang-Ijen plateau in term of factually-empirical occurred since the V – XV AD. But since the end of the XIII AD, its existence seems to have started to decline and was gradually eliminated by the expanding influence of Hinduism culture. The megalithic culture of Iyang-Ijen plateau area is considered to have ended around the XVIII – XIX AD due to the presence of the Madurese ethnic diaspora.

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