Managing the Past into Future: Materiality and Discourse on Cultural Landscape

Wijaya Martokusomo^{1,a)}, Budi Faisal^{1,a)}, Huda Nurjanti^{1,a)}, Feysa Poetry^{1,a)} & Nathania Nadia^{1,a)}

¹⁾Department of Architevcture, Institut Teknologi Bandung, Bandung, Indonesia.

Correspondent: a)wmart@ar.itb.ac.id

ABSTRACT

Referring to the understanding of landscape as a cultural construct, the notion of the cultural landscape is constituted by its essential elements: system, people, and the landscape itself. The nexus between these elements was philosophically developed in a recent discourse that challenges the separation between cultural and natural heritage. This "segregation" is based originally on the hegemony of western values, in which cultural heritage resides mainly in monuments and sites; meanwhile, natural heritage is formed by the scientific idea of nature and wilderness as something isolated from people.

The landscape of Muara Muntai, a tiny settlement that has grown and developed on the riparian of Mahakam River, is characterized by the use of Ironwood or *Eusideroxylon zwageri Teijsm* (locally known as *Kayu Ulin*). This native plant of East Kalimantan is considered noteworthy, and in the perspective of ecology, is currently categorized as "threatened" due to deforestation in the last decades. For a couple of hundred years, locally-sourced Ironwood has been purposed and processed autonomously by the community as building and linkage-system material, creating a unique ambiance for Muara Muntai. The so-called modernization significantly changes the value of this native material: Ironwood building façades have been renovated into brick cement for the sake of practicality; Ironwood roads and bridges have been gradually paved with concrete to make way for motorized transportation.

Noting that the spirit of the place resides as much in the meaning and symbolism of place as it does in the locus settings, it requires a holistic approach to understand the conflict between modernization and place identity. The case of Muara Muntai will showcase how values of cultural heritage and its attributes -also to what extent the integrity, i.e. wholeness and intactness-will be able to be read and interpreted to give an overall sense of continuity.

Keywords: cultural landscape, values, materiality, ironwood, Muara Muntai

INTRODUCTION: CULTURAL LANDSCAPE

Through modernization and globalization, we are now experiencing the most exciting and challenging period of development. There are two reasons to celebrate: firstly, Klaus Schwab's fourth Industrial Revolution is soon becoming reality, in which we are all at the beginning of the digital-based industrial revolution. (Schwab, 2017)— calling for awareness in underlining that the advancement of this revolution is to enrich our social well-being; secondly, the world keeps changing and many cities are globally confronting the rapid pace of transformations that are often disruptive and suppressive. Accordingly, this does alter and

affect our landscape, social system, and people, which shape and create our cultural landscape.

Practices of heritage conservation deal with the protection of both physical and intangible dimensions— as discourses on heritage evolve, values embedded in the artifact or fabric may significantly play an important role, besides the physical entity itself. A recently emerging movement in conservation emphasizes the role of contemporary social, cultural, and personal meanings (Gutschow/Weiler, 2017; Wells, 2010), endorsing pluralistic perspectives of different communities and cultures by recognizing diverse ways of valuing historic places. Also, in line with sustainability concerns, heritage conservation has conceptually been shifting from a monument/object/physical centric approach to a broader issue on ecology—something that has been passionately discussed and promoted in recent decades: landscape/subject and value-based approach (Martokusumo, 2019; Veldpaus, Roders, Colenbrander, 2013; Taylor/Lennon, 2012). This contradicts the mainstream international heritage values, which are dominantly based upon the 19th-century Euro-American approach to architectural conservation (Wells, 2010).

The use of Ironwood as building materials has uniquely characterized the tiny riverfront settlement of Muara Muntai, in particular in the forms of boardwalk and traditional wooden frame houses on stilts. Ironwood, a native plant of East Kalimantan, is considered noteworthy, and in the perspective of ecology, is currently categorized as "threatened" due to increasing deforestation in the last decades. As an overriding concern, the case of Muara Muntai will not solely highlight the use of Ironwood as an essential building material, but it will also showcase how values of cultural heritage and its attributes in particular— also to what extent the integrity, i.e. materiality — will be able to be read and interpreted to give an overall sense of continuity. All of these have put forward a further contention on how the protection of such attributive elements will be determined by specific regional imperatives and newly resulting problems as a direct consequence of the intrusion of modernity.

CULTURAL LANDSCAPE AND THE CONCEPT OF MATERIALITY

Since the post-late 1980s the idea of "landscape as cultural product" has substantially extended to "landscape as a cultural process." Noting Taylor/Lennon (2012), historical studies of landscapes must be grounded in the analysis of material structures, since they are properly concerned with tangible, visible expressions of different modes of production. However, the studies must further acknowledge that landscapes, including buildings, structures, and sites of cultural, historical, and ecological significance, are constructed also by mental attitudes. Consequently, a proper understanding of landscapes must depend on the historical recovery of ideologies.

Following that, the culture-nature relationship and traditional ways of seeing cultural landscapes have been becoming a topic of considerable interest to which critical attention is being given. In a contest with mainstream internationalized universal heritage values where the heritage resource is merely viewed as a monument separate from its cultural landscape setting and, similarly, where natural values have been privileged over cultural values, these are often resulting in the removal and dispossession of traditional localities (Wells, 2010; Taylor/Lennon, 2012). As we learn from reality, nature and culture cannot be separated, and they often form an integral whole, each informed by the other (Martokusumo, 2019). Again, this confirms that landscape is not simply a visual background to the built heritage. The increasing recognition in the conservation realm of the cultural landscape is a move away from disconnecting buildings from their environment and based upon that, it foretells that buildings and landscape (topos) are to be understood as a continuum (Taylor/Lennon, 2012).

Concerning the discourse on the protection of cultural heritage, authenticity and integrity have thoroughly been debated in theory and praxis, in particular, to determine which

historic fabrics are worthy of importance (Gutschow/Weiler, 2017; Wells, 2010; Jokilehto, 2006; Smith, 2006). Authenticity is understood as "the ability of a property to convey its significance" over time (Andrus/Shrimpton, 2002). Integrity is described as the identification of the functional and historical condition of the fabric that concerns the ability of the fabric to conserve its significance in a period (Stovel, 2007; Jokilehto, 2006). Traditionally, authenticity and integrity are predicated on preserving the object physically rather than conserving the embedded meanings and/or values associated with the object (Wells, 2010; Smith, 2006). Since judgments about values attributed to cultural properties and the credibility of related information sources may be unique from culture to culture, region to region, and even within the same culture, it is hardly possible to base judgments of values and authenticity within fixed criteria (Rhyne, 1995) or without expanding the conception of materiality.

The Hoi An Protocol points out that together with settings, forms, and use/function, immaterial qualities also belong to dimensions of authenticity (Table.1). In short, the primary interest of the contemporary conservation theories, particularly in the Asian context, is no longer focused on the objects but rather on the subjects (Kwanda, 2010). Thus, conservation concerns both the physical and natural environment. It does not merely deify shrines of the past, but more than ever, the idea tries currently to make it more relevant to what the community needs (cf. Martokusumo, 2019). Noting this circumstance, heritage properties must be considered and judged within the cultural context to which they belong, including the idea of materiality (Lennon/Taylor, 2012).

Table 1. Dimensions of Authenticity

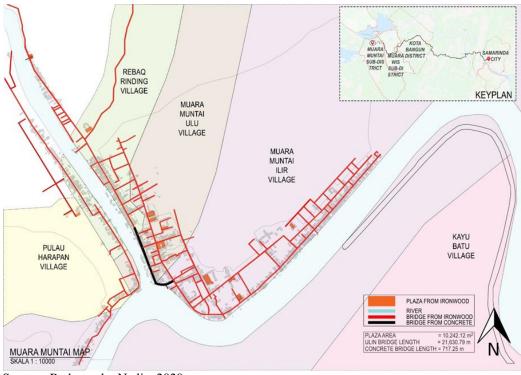
	Locations and Settings	Forms and Design	Use and Function	Immaterial Qualities
Aspects	Place	Spatial layout	Use(s)	Artistic expression
	Setting	Design	User(s)	Values
	Sense of Place"	Materials	Associations	Spirit
	Environmental niches	Crafts	Changes in use over time	Emotional impact
	Landforms and vistas	Building techniques	Spatial distribution of usage	Religious context
	Environs	Engineering	Impacts of use	Historical associations
	Living elements	Stratigraphy	Use as a response to environment	Sounds, smells and tastes
	I Degree of dependence on locale	Linkages with other properties or sites	Use as a response historical context	Creative process

Source: Hoi An Protocols (UNESCO Bangkok), 2009

Within the dynamics of a disruptive era, predictions can no longer be based either on common, conventional wisdom, or historical practice. Accordingly, efforts to protect and safeguard cultural and natural heritage have to be strengthened and contextualized. Thus, a city is not only determined by its aesthetic but also by the people and social system. Therefore, heritage-related notions, such as authenticity and integrity, must be put into context within its spectrum of localities, including the recognition and acceptance of nature and cross-cultural interactions found in the city. Noting the paradigm's shift from monument or single-isolated centric approach towards a landscape-based approach, the nexus of people, social system, and (urban) landscape ratifies that landscape is not just a physical entity (materiality), but rather—together with its subtle complexity—a formation of a social construct.

MUARA MUNTAI

In its historical development, Sultan Parikesit of the Kutai Kartanegara ing Martadipura Sultanate designated Muara Muntai as a border guard post in 1915. This post was located at the confluence (estuary) of the Mahakam River and the Mahakam Mati River (Jaini, 2017). The Dutch had used this intersection as a transit location since the 19th century with the mention of Moeara Moenteh in their expedition journals (Anonymous, 1865) and Moeara Moentai (Kern et al., 1959). Accordingly, Muara Muntai was designated as the capital of West Kutai in 1956 (Anonymous, 2017). This location was the gateway between Mahakam Ulu and Mahakam Ilir (Fig. 1). Over time, this area was growing into a place of transit and exchange of goods or trade (Jaini, 2017). The old town became a center of commerce and government, equipped with some Chinese-owned shops, salt warehouses, black warehouses, police stations, post offices, and Bugis Langgar. Not all of these historic buildings survived; some of them were burnt down, some were swept away by the Mahakam river, and some were left in the northern part of Muara Muntai City. The black warehouses are now turned into residences, the salt warehouses are already demolished, and some local foundations remain.



Source: Redrawn by Nadia, 2020

Figure 1. Muara Muntai map

The paper must be ended with a conclusion. In general, the conclusion must contain a summary of the research results or study results. This can be added by a statement of the research result's usefulness and the following research needed or interesting. The conclusion must be written, thoroughly, and concise. Therefore, the conclusions can not contain a table or figure. Administratively, Muara Muntai City has an area of 493.07 km2 consisting of 5 (five) villages, namely Muara Muntai Ulu, Muara Muntai Ilir, Rebaq Rinding, Kayu Batu and Pulau Harapan. Muara Muntai City is inhabited by 7421 people, consisting of 3744 men and 3632 women. The most populous area is in Muara Muntai Ulu village, inhabited by 137

people/km2 and the lowest density area is in Kayu Batu village with 3 (three) people/km2. The significant population growth rate in 2017 was 29 people for 5 villages, which, if compared to the previous years, increased by 4 (four) people (2016) and 6 (six) people (2015) (Supena et al., 2019). Currently, Muara Muntai is inhabited by Javanese, Madurese, Bugis, Banjar, and Kutai tribes (Survey, 2019). Many residents were not born in Muara Muntai, rather, they came as children or as adults to live, work, and trade. Children who came or were born in Muara Muntai would leave the city to continue their education in the capital cities.

Muara Muntai, which is located in a tidal swamp area, faces floods for 3-4 months every year around February-March to May-June. It experiences 72 rainy days in one year or an average of 6 rainy days per month (Supena et al., 2019) with rainfall of 2272 mm/year or an average of 189.3 mm/month. This period is now shifting and difficult to predict. Muara Muntai also abides major floods every 5-6 years, with the last one occurring in 2006 when most of the floors of the stilt houses were submerged in water up to 10 cm (Aji Djon, 2019; Asmara, 2020; Jaini, 2020).

The landscape of Muara Muntai is characterized by the use of Ironwood or Eusideroxylon zwageri Teijsm (locally known as Kayu Ulin). Houses and shops in Muara Muntai were erected on Ironwood pillars with an average height of 1-2 m above the ground depending on the location of the building (Fig. 2). At first the buildings were separated from each other; several adjacent buildings generally have terraces that are joined together to become one. But when the annual floods came, the settlement groups and government offices got separated from each other. The mobility of the population relies entirely on canoes and bamboo bridges that are built independently. (Asmara 2020; Jaini, 2020).

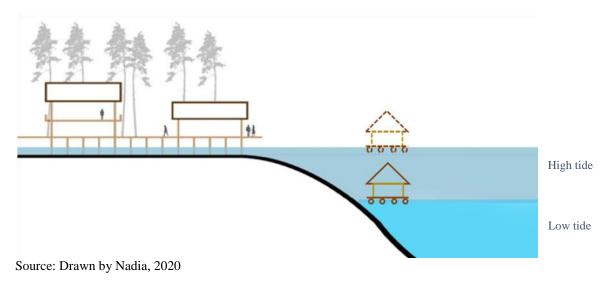


Figure 2. Buildings are located in riparian of the Mahakam river and are erected on ulin pillars due to face annual flooding. The building is located in tidal swamp area.

Camat Ishak Ali 1976 decided to build an Ironwood boardwalk permanently (Asmara, 2020; Jaini, 2020). This boardwalk connects the ASDP Muara Muntai Port to the Old District office for approximately 200 m and was built to facilitate the mobility of government employees who come to visit Muara Muntai sub-district. The boardwalk was then gradually extended during each term of office of the Camat until it is today. Now, the Ironwood boardwalk is currently reaching a total length of 21,630 Meter (Asmara, 2020; Jaini, 2020).

Compared to other establishments in Indonesia, Muara Muntai is one city district with the most usage of Ironwood, notably on the boardwalk (+21.63 km length, 2-5 m width) and public squares (about 10. 242 m2). Figure 3 and Figure 4 illustrate the usage of Ironwood on

such a huge scale in squares of schools, mosques, and houses. The squares are usually connected to the boardwalk.



Source: Doc. Nurjanti

Figure 3. Ironwood is used for squares. Left to Right: Elementary School (*Sekolah Dasar-SD*) 001 Muara Muntai, Asy-Syakirin Great Mosque, residential.



Source: Doc.Nurjanti, 2019

Figure 4. Ironwood is used for village infrastructure. Left to Right: Bridge, Boardwalk, and Pontoon for boat house.

Ironwood is a part of nature that is respected by the indigenous people of Kalimantan. The strength and durability of this wood in humid and wet tropical weather make it an ideal material of choice for a variety of applications. Besides infrastructure, and buildings (foundations, poles, walls and roofs, frames), bridges and pontoons in the interior, electricity and telephone poles, river bank sheet piles, garden fences, and pepper plant piles (turus) (Effendi, 2009), people of Kalimantan also have been using Ironwood for other utilities, such as musical instruments and accessories (Sari et al., 2018), jewelry and ornaments, ancestral statues and balai-balai (pedestals for offering tools) and tempelak/sandung/klerekng (carved coffins) (Effendi, 2009; Gelollw, 2020) (cf. Fig.5 and Fig. 6).

The case of Ironwood in Muara Muntai has gone from being a response to the landscape (as a way of withstanding the periodical flood in a riverside settlement) to it being the landscape itself. The blatant existence of Ironwood in the everyday life of the people of Muara Muntai, proved by the massive amount of usage of it, has contributed to their livelihood and social system. To reflect on the discourse of cultural landscape, Ironwood could potentially be the nexus of Muara Muntai's landscape, people, and system.



Source: Doc. Rachman, 2020

Figure 5. Some examples of the use of Ironwood as building materials. Ironwood is commonly used as the main material of the boardwalk, the main material of the wooden construction, and was also used as roof tile. Left: People use shingles/roof tiles made from wood, but for modern buildings, they used metal roofs due to the scarcity of Ironwood nowadays. Middle and right: Special joint and connection with wooden pegs, no nails, neither screws nor bolts were used.



Source: EKSPOSKaltim/Arsyad, 2017; Sylvana Toemon, 2018; Wibowo Djatmiko, 2010; Doc. Nurjanti, 2019

Figure 6. Ironwood used for other utilities. Left to right: Carved coffins made of Ulin; Lungun Dayak in Batoq Ten'fang, Mahulu; Sandung in Central Kalimantan; Clerk of the Dayak Benuaq tribe in Muaralawa, East Kalimantan; Kijing/gravetone in Muara Muntai.

DISCUSSION ON CONSERVATION OF IRONWOOD AND IMPACT OF MODERNIZATION

Being an essential material of establishment in Muara Muntai, Ironwood, the native plant of East Kalimantan, is currently categorized as "threatened" due to exponential deforestation in the last decades— making it scarced and costly to find. According to WWF, only half of Kalimantan's forest cover remains intact today, down from 75 percent in the mid-1980s. With a current deforestation rate of 1.3 million hectares per year, only peat and montane forests would survive in the coming years. Based upon in 2012 WWF study, also projected that if the current rate continues, 21.5 million hectares will be lost between 2007 and 2020, reducing the remaining forest cover to 24 percent.

Given this situation, locals are in the favor of replacing Ironwood boardwalk with concrete for practical reasons, such as lower maintenance cost of the infrastructure. The use of motorcycle as a primary mode of "modern" transportation (also part of the modern lifestyle) jeopardizes the boardwalk and produces noises, which is considered annoying by the inhabitants (Fig. 7 and Fig. 8). According to interviews, it is also confirmed that specific building tradition with Ironwood has simultaneously declined due to the scarcity of this resource. In the former times, Ironwood was collected from the surrounding areas of Muara Muntai, such as Prian village, Muara Leka village, which unfortunately is not the case

anymore today (Asmara, 2020). Nowadays, Ironwood must be transported from West Kutai Regency, such as Tanjung Isuy, Melak, and Muara Jawa. To some extent, this predicament has been worsened by deforestation and the intrusion of palm oil plantations, coal mining, illegal logging, pulp plantations, and their associated activities. Besides all these, forest fires are also the key drivers of deforestation in Kalimantan.



Figure 7. Left: The main road in Muara Muntai City is made up of in (2013). Right: Some parts of the main road have been replaced with concrete (2018).



Source: Doc. Rachman 2020

Figure 8. Original Ironwood boardwalk Right: The Ironwood boardwalk under construction is to be cast with concrete

Contrasting to the apparent need to conserve Ironwood in Muara Muntai and the forewarning of deforestation, the locals are opting for the more practical way out to facilitate their modern lifestyle. It cannot be denied that Ironwood is one of the most authentic materials in the landscape of Muara Muntai, judged by its use and function (cf. Table 1). However, as already laid out above, the paradigm of conservation has shifted into value-based (immaterial quality) and the study of integrity. Only the inhabitants of Muara Muntai could be the legitimate judge of the matter.

As an impact of modernization, some locus of historical and cultural significance in the Muara Muntai, including the use of Ironwood has been threatened in recent decades. From the perspective of ecology, Ironwood has played an important role and it has been registered as one of the protected natural resources of Indonesia. Since the paradigm of heritage conservation has conceptually been shifting from physical determinant to socio-cultural construct, thus the nexus of people, social system, and the (urban) landscape must be taken into account in the engagement of historic landscape. Landscape, within the expanded conception of materiality— in this case, the riverside settlement of Muara Muntai – is not merely a physical entity, but rather, together with its subtle complexity, a formation of a social construct that will constantly be contested in space and time. As elsewhere mentioned by the author, this also confirms that the discourse on heritage conservation has expanded its area of interest into dimensions where environmental concerns, i.e. natural or cultural

landscape, topography, social and cultural traditions, and any environmental-associated notions, are more dominant that the historical association of a place.

Due to modernization, newly developed activities, such as urbanization and trading, need to be anticipated; meanwhile, there is also a need to protect the things that are considered important. Based on the interviews, the use of Ironwood as a boardwalk, which has been playing an important role as a public and social space, is aged less than 50 years (Fig. 9). This means that from the perspective of regulations on Cultural Heritage Law (Undang-Undang 11/2010), the boardwalk does not meet the criteria of being a noteworthy structure/artifact. But, since Ironwood is a protected species on its own, this may raise another question on the environmental concern. With the understanding that both natural and man-made elements of Muara Muntai are of the historical, socio-cultural, and ecological significance of the cultural landscape, more questions can furthermore be raised: Will a change in transportation mode help to overcome noise, or should one be looking for boardwalk installation technology that can reduce noise and preserve the Ironwood boardwalk? Given the challenging condition above, the overriding concern can be focused on the following questions: Firstly, what makes the Ironwood boardwalk so significant—about a representative building material? Secondly, how strong is the community attachment towards Ironwood that has been creating a unique ambiance to their village for decades? And thirdly, would there be any special value and symbolic meaning to it?



Source: Doc. Rachman, 2020.

Figure 9. Ironwood boardwalk is not merely a physical infrastructure, but it is also a public and social space. Left: Ironwood terrace, where people can sell and buy daily household needs. Right: Ironwood boardwalk is also used as a playground where children are playing on the chalked-up Ironwood boardwalk.

CONCLUDING REMARKS

This article highlights the use of Ironwood (Ulin) as an essential building material in Muara Muntai, a riverside settlement, and highlights the values of cultural heritage, along with its attributes in particular. This paper also points out the conflict between the discourse of conserving the unique character of the materiality of Ironwood that has already been shaping the village for decades and the need for pragmatic practicality of the utilization of modern materials such as concrete that will fundamentally alter the whole character of Muara Muntai. All of these have put forward a further contention on how the protection of such attribute elements will be determined by specific regional imperatives, security, and safety requirements and newly resulting problems as a direct consequence of intrusion of modernity. The case of Muara Muntai also showcases a challenge in what way a potential interface between protecting noteworthy fabric and accommodating dimensions of modernity could and might take place.

ACKNOWLEDGEMENT. This paper is written based on the ongoing research project on the cultural landscape of Muara Muntai and is financially supported through ITB P3MI Grant 2020.

REFERENCES

- Andrus, P.W., Shrimpton, R.H. (2002). *How to Evaluate the Integrity of a Property*. U.S. Dept. of the Interior National Parks Service, National Register, History and Education.
- Anonymous. (1865). Aardrukskündig en Statistisch Woordenboek Van Nederlands en Indie. P. N. Van Kampen, Amsterdam.
- Anonymous. (2017). Sejarah Kesultanan Kutai Kartanegara. (http://kesultanan.kutaikartanegara.com/index. php? menu=Sejarah; diakses 8/8/2017; 03:49 pm).
- Anonymous.(2020). Borneo's Deforestation.

 https://wwf.panda.org/our_work/our_focus/forests_practice/deforestation_fronts2/deforestation in borneo and sumatra/ (acces: 29 Oct. 2020).
- Effendi, R. (2009). "Kayu Ulin Di Kalimantan: Potensi, Manfaat, Permasalahan Dan Kebijakan Yang Diperlukan Untuk Kelestariannya (Eusideroxylon zwageri's Wood in Kalimantan: Potency, utilization, Problems and Needed policy for its Sustainability)". *Analisis Kebijakan Kehutanan*, E-journal, Vol. 6, No. 3, 2009.
- Jokilehto J., (2006). "Considerations on Authenticity and Integrity". World Heritage Context City & Time 2 (1): 1. [online] URL:http://www.ct.ceci-br.org.
- Kern, Dr. W.T., Venhage, 'S·Gra., Nijhoff, M. (1959). 'Verhandelingen Van Het Koninklijk Instituut Voor Taal-, Land- en Volkenkunde Deel Xix Commentaar op de Salasilah van Koetai', p. 112.
- Kwanda, T. (2010). "Tradition of Conservation: Redefining Authenticity in Javanese Architectural Conservation". *Proceeding of Heritage 2010.2nd International Conference on Heritage and Sustainable Development, Evora*, Portugal: 22-26 Juni.
- Rhyne, C.S. (1995). *The First International Document for Diverse Cultural Values in Conservation*. The Document of Nara. American Institute for the Conservation of Historic and Artistic Works. St. Paul Minnesota.
- Sari, F. Linda, R. Rusmiyanto, E. (2018). "Pemanfaatan Tumbuhan yang Digunakan dalam Pembuatan Alat Musik Tradisional Khas Suku Dayak di Kota Pontianak dan Sekitarnya". *Protobiont* (2018) Vol. 7 (2): 55–65.
- Schwab, K. (2017). The Fourth Industrial Revolution. New York: Crown Publishing Group Smith, L. (2006). *Uses of Heritage*. New York: Routledge.
- Stovel, H. (2007). "Effective use of authenticity and integrity as World Heritage qualifying conditions". *City & Time. vol. 2, Nr. 3*.
- Supena, J. et al. (2019). *Kecamatan Muara Muntai Dalam Angka Tahun 2019*. Badan Pusat Statistik Kabupaten Kutai Kartanegara.
- Lennon, J.L. Taylor, K (eds.). (2012). Managing Cultural Landscapes. London: Routledge.
- Martokusumo, W. (2019). "Heritage and Sustainable Urban Design: Extending the Role of Heritage Conservation in Urban Design". *Paper presented at the 1st International Conference on Urban Design and Planning*, University Diponegoro, 10 September.
- Veldpaus, L., Pereira -Roders, A., Colenbrander, B.J. F. (2013). "Urban Heritage: Putting the Past into the Future". *The Historic Environment*. Vol. 4 No. 1, April, pp. 3–18
- Weiler, K., Gutschow, N. (eds.). (2017). Authenticity in Architectural Heritage Conservation: Discourse, Opinions, Experiences in Europe. South and East Asia. Heildelberg: Springer.
- Wells, J. (2010). *Valuing Historic Places: Traditional and Contemporary Approaches*, School of Architecture, Art, and Historic Preservation Faculty Papers. Paper 22.

Government Regulation

UU 11/10. Undang-Undang Republik Indonesia Nomor 11 Tahun 2010 tentang Cagar Budaya (Laws of Republik Indonesia Number 11 of 2010 on Cultural Heritage).

Interviews

- Aji Djon, (2019). "Interview. Local residents and relatives of the Kutai Kartanegara" in Martadipura Sultanate.
- Arifin, YR. (2020). "Interview via telephone and whatsapp communication". Wood researcher at Forestry of Papua University & academic resource persons.
- Asmara, A, (2020). "Interview via telephone". Retirement of Cultural Office Kutai Kartanegara District & local resident.
- Gelollw, M. (2020). "Interview via telephone and social media". Resource persons for cultural actors.
- Jaini, M. (2020). "Interview via telephone". Retirement of Cultural Office Kutai Kartanegara District & former local resident.
- Pudjowati, P. (2020). "Interview via zoom.us". Academic resource persons and researchers at Agricultural Faculty of Mulawarman University.
- Rahman, I. (2020). "Interview via zoom.us". Tourist resource person, Chairman of the Indonesian Tour Guides Association DPC Kutai Kartanegara.
- Saleh. (2020). "Interview via telephone". Muara Muntai Sub-district office employee & local resident.
- Survey KSPN. (2016)