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Proceedings

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Foreword: It is my great pleasure to welcome all of you to the Built Environment, Science and Technology International Conference 2018 (BEST ICON 2018) in Surabaya – Indonesia. The BESTICON 2018 is the first biannual conference hosted by the Faculty of Science and Technology (FST), The State Islamic University of Sunan Ampel Surabaya, which is recognized State Islamic University in Indonesia. The theme of this year's conference is "Integrated Science and Technology toward Sustainable Built Environment", a topic that is aimed at providing the researchers, academicians, educators, scholars, practitioners, experts, and professionals from all over the world a scientific forum of discussions to exchange ideas and to meet and share the latest knowledge, research and innovations the research results in the fields of built environment, science and technology. With respect to the hard work of the committee, I would like to express my deep appreciation and gratitude to all the committee members, the (More)

Volumes:

Vol. 1 - 978-989-758-414-5

Papers Authors

Show 50 papers

Estimated Optimum Internal Illuminance Distribution based on Standard Deviation and Mean of Variation of Window Opening Position in a Room	P. 5 - 10
Gramandha Wega Intyanto, Yose Rizal, Eko Mulyanto Yuniarno and Yoyon Kusnendar Suprpto	DOI:10.5220/0008903900050010
Batang' as a Domestic Space – The Manifestation of Sustainability in the Riverside Settlement Culture in Banjarmasin	P. 11 - 19
Dahlani, Purwantini Setijanti, I Soermarno, Muhammad Faqih and Arina Hayati	DOI:10.5220/0008904300110019
The Impact of Land Use Change and Factors Affecting the Settlements in Ambawang Corridor	P. 20 - 31
Nunik Hasriyanti, Andi Zulestari Z and Ismail Ruslan	DOI:10.5220/0008904800200031
Application of Tourism System in Scenic Route in the Cultural and Old Tourism Areas in Pontianak	P. 32 - 38
Nunik Hasriyanti, Julius Judhi and Andi Zulestari	DOI:10.5220/0008904900320038
Design Guidelines for Urban Aesthetic to Strengthen Visual Quality at Town Corridor in Pontianak City Center	P. 39 - 48
Andi Zulestari Z, Nunik Hasriyanti and Ismail Ruslan	DOI:10.5220/0008905000390048
Identified Physical Settings Determinants of Public Activities in the Sidoarjo City Square	P. 49 - 53
Muhammad Ratodi, Qurrotul A'yun, Oktavi Elok Hapsari and Rita Ernawati	DOI:10.5220/0008906100490053
Spatial Adaptation on Home-based Enterprises Development in Kampung	P. 54 - 61
Rita Ernawati, Arfiani Syariah, Mega Ayundya Widiastuti and Muhamad Ratodi	DOI:10.5220/0008907100540061
Urban Parks as a Part of Urban Design Implementation towards Healthy Cities: What Can Be Achieved through the WHO's Healthy Cities Model?	P. 68 - 75
Faruq Ibnu Haqi, Parmo and Arfiani Syariah	DOI:10.5220/0008908400680075
The Design of Space based on Architectural Geometry	P. 76 - 83
Wasilah	DOI:10.5220/0008908500760083
Embracing Transient Migrant toward Smart Living at Kampung in Surabaya	P. 84 - 89
Purwanita Setijanti, Soesiana Tri Ekawati, Angger Sukma Mahendra, Tantri S R Nasution, Susetyo Firmaningtyas and M. Ainul Yaqin	DOI:10.5220/0008908600840089
Characterization of Hemagglutinin Protein Structure of H5N1 Virus Circulating in Indonesia based on Proteomic Analysis	P. 95 - 98
Moch Irfan Hadi, Hanik Faizah, M Yusuf Alamudi, Misbakhul Munir, Risa Purnamasari and Nova Lusiana	DOI:10.5220/0008903700950098

<p>Analysis of Degeneration Hepatosit Cell on Female Mice(Mus musculus) Induced by Ruthab Dates (Phoenix dactylifera) Extract and Paracetamol</p> <p>Risa Purnamasari, Nurul Nahdiyah, Eko Teguh Pribadi, Sri Hidayati, Nova Lusiana, Funsu Andriarna, Moch Irfan Hadi, Hanik Faizah and Mohammad Yusuf Alamudi</p>	P. 99 - 102 DOI:10.5220/0008906600990102
<p>Phytochemical, Haematinic and Antidiabetic Test of Pumpkin Extract (Cucurbita moschata)</p> <p>Nova Lusiana, Linda Prasetyaning, Eva Agustina, Risa Purnamasari, Mei Lina Fitri Kumalasari, Estri Kusumawati, Esti Novi Andriyani, Irul Hidayati and Agustin Nur Willadi</p>	P. 103 - 107 DOI:10.5220/0008906801030107
<p>Detection of Enterohemorrhagic Escherichia coli (EHEC) in Consumption Water Source using Multiplex PCR Method</p> <p>Khoirun Nihayati, Yuanita Rachmawati, Saiku Rokhim and Linda Prasetyaning Widayanti</p>	P. 108 - 112 DOI:10.5220/0008907001080112
<p>Effectiveness of Green Coconut (Cocos nucifera L.) Water against Heavy Metal Levels in the Blood of Rattus norvegicus</p> <p>Yuanita Rachmawati, Ika Mustika, Esti Tyastirin, Reni Ida Wati, Ayudya Fitri Arifa, Humairah Azzahra, Aimmatul Maghfiroh, Melinda Rodhiya Idrus, Marsono, Mohamad Khafid Abdullah, Lailatul Amaliyah and Islamiati Ningrum</p>	P. 113 - 118 DOI:10.5220/0008907201130118
<p>Soil Arthropods Diversity at Mt. Arjuno Trails, Subdistrict of Prigen, District of Pasuruan, East Java</p> <p>Muhibuddin Abdullah, Tatag Bagus Putra Prakarsa, Saiful Bahri, Saiku Rokhim, Arika Wahyuningasih, Heny Utami Ningsih and Saiful Anwar</p>	P. 119 - 122 DOI:10.5220/0008907301190122
<p>Antihyperlipidemic Activity of the Methanolic Extract of Parijoto (Medinilla speciosa) on the Protein Profile of Hyperlipidemic Rats</p> <p>Noor Nailis Sa'adah and Awik Puji Dyah Nurhayati</p>	P. 123 - 128 DOI:10.5220/0008907901230128
<p>Service Life Design for Infrastructure under Indonesian Environmental Exposure</p> <p>Mochamad Hilmy and Herry Prabowo</p>	P. 133 - 138 DOI:10.5220/0008904001330138
<p>Analysis of Worker Productivity at Construction Projects in Highlands: A Case Study from the Development of Penanjakan Viewpoint at Bromo Tengger Semeru National Park in East Java</p> <p>Kusnul Prianto and Mega Ayundya Widiastuti</p>	P. 139 - 147 DOI:10.5220/0008904401390147
<p>A Study on the Operational Performance and Satisfaction with the Service Quality of Trans Mebidang Buses in Corridor 1 and Corridor 2 based on Passengers' Perception</p> <p>Cok Nando Panondang, Roesyanto Roesyanto and Medis Sejahtera Surbakti</p>	P. 148 - 153 DOI:10.5220/0008904501480153
<p>A Study of the Physical-Mechanical Properties of Bamboo in Indonesia</p> <p>Efa Suriani</p>	P. 154 - 162 DOI:10.5220/0008904601540162
<p>Slums Degree in Densely Populated Settlements in the River of Kapuas, Pontianak, as Sensitive Water Area</p> <p>Eva Ryanti, Nunik Hasriyanti and Ismail Ruslan</p>	P. 163 - 166 DOI:10.5220/0008905101630166
<p>The Mechanical Properties of Lightweight Concrete Made with Lightweight Aggregate Volcanic Pumice</p> <p>Parmo, Tavio, Efa Suriani, Kusnul Prianto and Faruq Ibnuul Haqi</p>	P. 167 - 171 DOI:10.5220/0008906501670171
<p>Analysis of Consolidation Settlement: A Case Study on State Islamic University of Sunan Ampel Campus</p> <p>Abdul Hakim and Kusnul Prianto</p>	P. 172 - 176 DOI:10.5220/0008907601720176
<p>Study of Fine Artificial Lightweight Aggregate (ALWA) from Sidoarjo-Mud and Fly Ash with Different Calcination and Composition</p> <p>Rizqi Abdi Perdanawati, Triwulan and Januarti Jaya Ekaputri</p>	P. 177 - 184 DOI:10.5220/0008907801770184
<p>Effective Urban Drainage for Juata Laut Landfill</p> <p>Teguh Taruna Utama, Dyah Ratri Nurmaningsih, Dedy Suprayogi, Abdul Hakim and Rr Diah Nugraheni Setyowati</p>	P. 185 - 190 DOI:10.5220/0008908001850190
<p>The Motion Response Analysis of Floating Jack-Up Rigs in the Operating Condition</p> <p>Asri Sawiji</p>	P. 191 - 196 DOI:10.5220/0008908101910196
<p>Providing Students with the Knowledge about Green Technology in Environmental Preservation</p> <p>Muhammad Irwan Padli Nasution and Husnarika Febriani</p>	P. 201 - 205 DOI:10.5220/0008904202010205
<p>Evaluation of the Operational and Structural Design of Sewage Treatment Plant of Muara Fajar (IPLT Muara Fajar) Pekanbaru City, Riau Province, Indonesia</p> <p>Ida Munfarida, Arqowi Pribadi, Teguh Taruna Utama and Yusrianti</p>	P. 206 - 212 DOI:10.5220/0008905202060212
<p>Degradation of NH3 and BOD in Domestic Wastewater using Algal-bacterial System</p> <p>Indah Nurhayati, Rheny Ratnawati and Sugito</p>	P. 213 - 218 DOI:10.5220/0008905302130218
<p>Physical Factor Analysis of Juata Laut Landfill's Planning Location in Tarakan City, North Kalimantan</p> <p>Shinfi Wazna Auvaria, Sarita Oktoria, Widya Nilandita and Sulistya Nengse</p>	P. 219 - 225 DOI:10.5220/0008907702190225
<p>Pollutant Load and Assimilation Capacity in Martapura River, South Kalimantan, Indonesia</p> <p>Tien Zubaidah, Nieke Karnaningroem and Agus Slamet</p>	P. 226 - 229 DOI:10.5220/0008908902260229
<p>Optimal Control of Exogenous Reinfection Prevention and Treatment on a Tuberculosis Model</p> <p>Zainullah Zuhri, Abdulloh Hamid, Subchan and Imam Rofiki</p>	P. 235 - 239 DOI:10.5220/0008904702350239
<p>Stability Analysis of Cycle Business Investment Saving-Liquidity Money (IS-LM) Model using Runge-Kutta Fifth Order and Extended Runge-Kutta Method</p> <p>Ulia Maulidah Musyaffafi, Mohammad Hafiyusholeh, Yuniar Farida, Aris Fanani and Ahmad Zaenal Arifin</p>	P. 240 - 246 DOI:10.5220/0008905402400246
<p>Image Cryptographic Application Design using Advanced Encryption Standard (AES) Method</p> <p>Nur Atifah, Aris Fanani, Yuniar Farida and Putroue Keumala Intan</p>	P. 247 - 254 DOI:10.5220/0008905502470254
<p>Detection of Hoax Content on Social Media in Indonesia using a Levenshtein Distance Method</p> <p>Frista Gifti Weddiningrum, Anang Kunaefi and Noor Wahyudi</p>	P. 255 - 261 DOI:10.5220/0008905602550261
<p>Analysis of Public Sentiment towards East Java Governor Election 2018 on Twitter using Text Mining</p> <p>Fajar Darwis Dzikril Hakimi, Ahmad Zainul Hamdi, Nurissaidah Ulinnuha, Ahmad Hanif Asyhar and Yuniar Farida</p>	P. 262 - 267 DOI:10.5220/0008905902620267
<p>The Analysis and Implementation of Haversine Formulas in Determining QJbla Direction by Using Sphiral Trigonometry in Indonesia</p> <p>Binti Maftukhah, Nurissaidah Ulinnuha, Mohammad Hafiyusholeh and Wika Dianita Utami</p>	P. 268 - 271 DOI:10.5220/0008906202680271
<p>Diabetic Retinopathy: Severity Level Classification based on Object Detection (Microaneurysms, Hemorrhages, and Hard Exudates) using Mathematical Morphology and Neural Networks</p> <p>Fifi Diah Rosalina, Dian C. Rini Novitasari, Ahmad Hanif Asyhar, Abdulloh Hamid and Muhammad Firmansjah</p>	P. 272 - 280 DOI:10.5220/0008906302720280

The Implementation of Multi Criteria Decision Making (MCDM) for the Evaluation of Sustainable Regional Development in East Java by Using the Fuzzy C-Means Method and Technique for Order Preference By Similarity To Ideal Solution (TOPSIS)	P. 281 - 288
Devi Saldatuz Zaenab , Yuniar Farida , Dian C Rini Novitasari , Ahmad Lubab and Dian Yuliati	DOI:10.5220/0008906402810288
Identification of Glioma using Discrete Wavelet Transform (DWT) and Artificial Neural Network (ANN)	P. 289 - 294
Endah Nur Salamah , Dian C Rini Novitasari , Ahmad Hanif Asyhar and Muh Ma'arif	DOI:10.5220/0008906702890294
Optimization of Autoregressive Integrated Moving Average (ARIMA) for Forecasting Indonesia Sharia Stock of Index (ISSI) using Kalman Filter	P. 295 - 303
Luluk Wulandari , Yuniar Farida , Aris Fanani and Mat Sya'in	DOI:10.5220/0008906902950303
The Characterization of Rice Straw Briquette as an Alternative Fuel in Indonesia	P. 304 - 309
Erry Ika Rhoftita , Pablo Lopez Hutardo and Franck Miraux	DOI:10.5220/0008908203040309
Bayesian Analysis Application in Nuclear Physics	P. 310 - 315
Parada T. P. Hutaeruk	DOI:10.5220/0008908703100315
Speech Application Programming Interface for English Pronunciation Learning	P. 321 - 325
Achmad Teguh Wibowo , Moch Yasin , Mohammad Khusnu Milad , Muhammad Andik Izzuddin and Faris Mushlihul Amin	DOI:10.5220/0008903803210325
Information Technology Adoption in Islamic Higher Education Institutions in Indonesia	P. 326 - 332
Yusuf Amrozi , Mujib Ridwan and Eni Purwati	DOI:10.5220/0008904103260332
Information System Strategic Planning using Ward and Peppard Method at Universitas Islam Negeri Sunan Ampel Surabaya	P. 333 - 343
Pipit Merit Biyanti and Nita Yalina	DOI:10.5220/0008905803330343
Neural Network Harmonic Filter for Microgrid System	P. 344 - 349
Mat Sya'in , Dedy Kurniawan Setiawan , Agus Muhammad Hatta and Yuniar Farida	DOI:10.5220/0008906003440349
Information Technology Utilization in Environmentally Friendly Higher Education	P. 350 - 355
Leon Andretti Abdillah , Arif Ainur Rofiq and Dian Eka Indriani	DOI:10.5220/0008908303500355
Oil Spill Simulation for Analysis of Environmental Mitigation in Cilacap Coastal Areas	P. 361 - 366
Mauludiyah and Mukhtasor	DOI:10.5220/0008905703610366
Hydrodynamic Modelling using Software of Mike21 in the Land Reclamation of Jakarta Bay: Current Condition and Master Plan	P. 367 - 377
Rahmad Agung Saputra , Rizqi Abdi Perdanawati and Rudy Akhwadhy	DOI:10.5220/0008907403670377
Convivial Technology for Sustainable Coastal Development	P. 378 - 380
Daniel Mohammad Rosyid and Masroro Lilik Ekowanti	DOI:10.5220/0008908803780380

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'Batang' as a Domestic Space – The Manifestation of Sustainability in the Riverside Settlement Culture in Banjarmasin

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Keywords: The Use of Domestic Space, *Batang*, Riverside Culture

Abstract: Riverside settlement is the start of the development of river cities in Indonesia. At this time the cities' growth has shifted from river-based to land-based. This condition raises the question of whether riverside settlements still have connectedness to the river for daily activities as the manifestation of a riverside culture. This research used a qualitative method with case studies on riverside settlements in Banjarmasin, such as Panglima Batur and Kampung Kenanga settlements. The focus of the observations was on the daily activities carried out by residents on some elements of the settlements, namely *batang* and its connection with the dwellings. Based on this research, riverside functioned not only as a "looked-on space" but also a "used space"; there was an active relationship between the river, settlement, and dwellers that materialized from domestic activities. Daily activities conducted by the inhabitants were the most specific forms of culture that could be seen in the built environment. In this case, the riverside culture was visible through the existence of *batang* and its use. Through this *batang*, the sustainability of the riverside culture in riverside settlements can be maintained.

1 INTRODUCTION

The city of Banjarmasin is known as the "City of Thousand Rivers"; it is flowed by many rivers, large and small. This natural condition of being surrounded by many rivers created a culture of living by the riverside. The riverside culture is a form of daily life of people who depend on the river for their way of life and behavior (Nurfansyah, 2006). According to Saleh (1984), this is triggered by the existence of the river as a main transportation route, so the population is concentrated along the river. It can be seen from the existence of settlements in the form of houses on stilts along the river or in the form of *lanting* houses that float on the river.

Different cultures will produce different dwellings (Lawrence, 1983, Lang, 1987). Residential place is the social-cultural expression implied through its domestic activities. Activity is the reflection of people's desires, attitudes, and knowledge of the world as a place of residence (Lang, 1987). Activities connect them (occupants)

with the environment to process and change the nature in settling in an environment as a cultural embodiment based on an understanding of what is known, thought, and viewed by individuals about the world and the values that are formed and developed in the community (Sangalang and Adji, 2014). Activities can be seen from the daily behavior of residents interacting with their environment. Behavior is one of the factors that influence the relationship between residents and the environment in which they live. In addition, there are also influences from culture, environmental conditions, and outside influences (Hirsan, 2011).

In order to achieve sustainable settlements, one aspect that needs to be considered is culture. Culture is an important part of human-centered development, so culture is used as an aspect of the realization of sustainable development (referring to the World Commission on Culture and Development/WCCD, 1996). The most specific cultural breakdown is an activity that can be studied through the built environment (Rapoport, 2005). The values held by a society and the material objects it uses are cultural

elements that embody its way of life (Knox and Pinch, 2010). A culture that is realized through the way of life of everyday residents as a community can support the sustainability of settlements. This is especially the case for the culture that can show the relationship between residents and their environment based on specific environmental conditions such as the state of being on the banks of rivers.

The existence of a river will affect the use of domestic space as a place for daily activities. One of the elements of riverside settlements is *batang*. A *batang* is a vernacular building built by a community to accommodate daily activities directly related to the river. A *batang* is a material object in settlements as a cultural element of riverside. The existence of *batang* in riverside settlements is currently decreasing because it is considered by some to provide a less attractive view of the riverside. Therefore, through the study in this article, it is hoped that it can contribute to the importance of *batang* as a domestic space, which is a cultural element in settlements that can manifest the cultural sustainability of riverside settlements.

Presently, the growth of Banjarmasin city has shifted from river-based to land-based. The riverside is more geared towards the development of a more public riverfront. This condition raises the question of whether riverside settlements still have connectedness to the river for daily activities as the embodiment of a river culture.

2 LITERATURE REVIEW

2.1 The Culture of Living

Culture concerning various ways of human life is reflected in the patterns of action and behavior (Poerwanto, 2008, Daeng, 2008). Culture can be seen in three forms (Koentjaraningrat, 1985). First, it can be seen in the form of complex ideas, values, norms, rules, and so on. Second, it can be seen in the form of complex patterned activities of human beings in a society. Third, culture can also be seen in the form of objects of human works; through this form, culture can be studied architecturally as the result of human relationships with the environment in a built environment, including the use of space in a settlement. In the use of domestic space, a community's values, the activities undertaken by residents, and the buildings, spaces, and elements in it as objects of human creation are observable.

Humans' activities reflect the desires, attitudes, and knowledge of their world as their place of

living, so how environment is addressed tends to be different to every person. This is influenced by their society and culture (Lang, 1987). Rapoport (2005) describes in detail the relationship between culture and activities that can be seen in a built environment. He describes culture to be more concrete, so it can be understood in the built environment. Culture is defined as a way of life consisting of values, ideals, images, schemata, meanings, norms, standards, expectations, rules, lifestyles, and activity systems. All aspects of culture will be realized in the built environment in the form of space organization, time, meaning, and communication. Built environment is the embodiment of a system of activities. It is a cultural landscape. Built environment is composed of fixed elements, semi-fixed elements, and non-fixed elements. Through this explanation, the implementation of culture in a built environment becomes clearer and easier to study.

The processes of culture, environment, and psychology take place in an interconnected system. These three are related to mental activities (seeing, hearing, smelling, interpreting, believing, and behaving) and behavioral activities (what people do and how they act) towards their environment (Altman and Low, 1992). Culture is a process in which people create meanings to give themselves a sense of identity. Place is a manifestation of human culture (Cohen, 1994 in Ujang and Zakariya, 2015). Environmental variations can also reflect the cultural complexity that distinguishes one group from another. Ways of life, symbols, meanings and cognitions, and sustainability are accepted as specific norms to a particular group. In a pluralistic society, culture plays an important role in determining its identity that influences the character and identity of the places it inhabits (Ujang and Zakariya, 2015).

2.2 Domestic Space and Domestic Activities

The word domestic comes from the Latin word "domesticus", which means home and house or household. Domestic space is found in home, house, and yard for the relationships between human with their residence, both inside and outside the house in everyday contexts (Briganti and Mezei, 2012). The existence of domestic space can be understood from the existence of space elements in the form of furniture, tools, and appliances arrangement as the main marker (Schlyter, 1991, Hanson, 1998). Equipment in this space can show the functions for

everyday activities, for example, living room, dining room, sleeping room, study room, and kitchen (Oseland, 1999). Domestic activity indicates the relationships between human and their living space in everyday contexts (Monteiro, 1997; Collignon, 2010). Domestic space as a place of daily activities directly responds to human needs and wants. Every human being forms a domestic space in accordance with his/her will to get the best conditions for his-/herself.

Monteiro (1997) divides the activities in domestic space into three groups: 1) integrated activities, which are various activities that can be done in one space; 2) rooted activities, which are restricted and inflexible activities consisting of only one type of activity function that depends on specific equipment/furniture in the room, for example, cooking in the kitchen, bathing in the bathroom; and 3) loose activities, which are activities that are flexible—it can be done anywhere in the house and can be associated with other activities. Residents have the freedom to use the space to meet their activity requirements. One space can be used for various activities, and certain activities can take place in any space.

Domestic space as an area for domestic activity shows the relationship between humans and their environment. The existence of activities is determined by four components: the existence of the subject, the existence of activities, and the existence of places in association with time. There are various domestic activities that can be done indoors and outdoors. The type of domestic activity to be used in this study is based on the classification of activities undertaken by Monteiro (1997), Ahrentzen (1989), and Kisnarini (2015) as shown in Table 1.

Table 1: Classification of Domestic Activities

Household Chores	Extended Chores
a. Washing clothes b. Drying clothes c. Ironing d. Storing clothes e. Cleaning/maintaining the house f. Cooking preparation g. Cooking h. Washing dishes	a. Shopping b. Working c. Playing with children
Passive Leisure	Interactive Leisure
a. Watching TV b. Reading books c. Listening to music/radio d. Relaxing	a. Talking b. Receiving guests c. Playing d. Playing a musical instrument e. Doing a hobby

Private Needs	Communal Needs
a. Bathing b. Sleeping c. Praying d. Studying e. Personal care f. Childcare/babycare g. Resting	f. Going for a walk a. Drinking together b. Eating together c. Togetherness with family d. Celebration e. Religious meetings

3 RESEARCH METHODS

This research used a qualitative research method with a phenomenology approach, which looks at the research object in the natural context. Phenomenological research emphasizes, to a greater extent, people's experience at where they are. The focus of this research was the existence of residents who used *batang* as domestic space.

The study was conducted in the city of Banjarmasin in a settlement on the banks of Martapura River. The selected locations were Panglima Batur and Kampung Kenanga. Both villages were categorized as old villages.

The data required were in the form of primary data, which were data on *batang* types and placement in the settlement, activities carried out in the *batang*, semi-fixed and non-fixed supporting elements, types of actors, time of activities, and occupants' reasons for using *batang*. Data collection was carried out by in-depth interviews with *batang* users and field observations, which were conducted directly in the field where activities were carried out by *batang* users.

4 RESULTS AND DISCUSSION

4.1 *Batang* as a Vernacular Building on a Riverside Settlement

Vernacular architecture is also called architecture without architect. A vernacular building reflects the habit of community life; it is built due to the desire to adjust to natural conditions. The community has the autonomy in construction to fulfill its functions. The riverside community makes the *batang* adjusted to the condition of the site where the building is located, which is on the banks of the river.

Batang is an unroofed rectangular construction located on the bank of a river. Its dimensions vary from 1 m x 1 m to 3 m x 4 m. Based on the construction, there are two types of *batang*, namely

batang lanting and *batang panggung* (platform). *Batang lanting* has a floating construction made of logs, bamboos, or plastic drums. Meanwhile, *batang panggung* has a pole construction made of *galam* wood or ironwood that is plugged into the ground. The *batang*'s floor is made of sparsely-arranged ironwood. The structure and materials of a *batang* show that it is a vernacular construction.



Figure 1. *Batang lanting* with a floating bamboo construction (1) and *batang panggung* with an ironwood construction (2)

4.2 Placement of *Batang* at Dwelling

Subiyakto (2005) states that the characteristics of

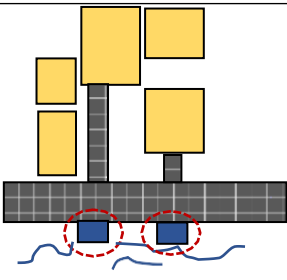
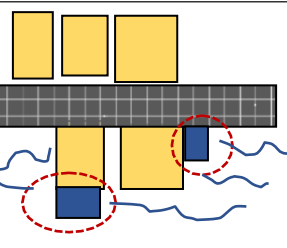
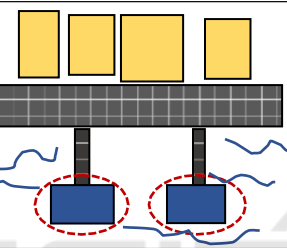
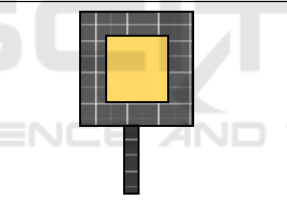
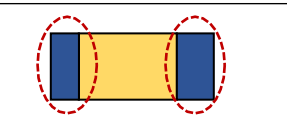
riverside settlements in Banjarmasin are as follows: “The house is built as a house on stilts rights on the riverbank or some of the posts are in the water. Sometimes it can be a *lanting* house floating on the water on the riverbank. In the same case they also built a places of worship such as mosque or *langgar*. Aside from that, there are also *lanting* or *batang* for bathing, washing and latrine. *Lanting* and *batang* function like docks, a place to unload and upload items from boats or ships. It is a place for people to make sale transactions with boats peddlers. It is also a place to tether boat.”

Historically, the above text indicates that ‘*batang*’ is located on the bank of a river, stands alone, and exists in a similar manner as other dwellings that are located by the river (*lanting* houses and houses on stilts). It serves as a bath, laundry, and latrine, as well as a dock for boat and passenger and a boat tether.

The laying of a *batang* in subsequent developments is not only done along the bank of a river as a stand-alone construction, but related to dwellings on the riverside. The laying of a *batang* can be seen in the following table 2.

Table 2. Placemnet of *Batang* at Dwelling

No. 1	Placement of <i>Batang</i> 2	Description 3
1.		<p>A. The <i>batang panggung</i> is situated in front of a group of dwellings after a public <i>titian</i> (walkway). The dwellings on the riverside settlement are grouped based on marital relationships called <i>bubuhan</i> (family cluster). Each of these <i>bubuhan</i> will have a single communal <i>batang</i>. Historically, <i>batang</i> has existed since the first house in the <i>bubuhan</i> group was built (grandfather or great-grandfather) and has survived until now.</p> <p>B. The <i>batang panggung</i> is situated in front of the dwelling directly connected to the terrace. This new <i>batang</i> is built to facilitate the activity of the occupants. The inhabitants feel that it takes a great distance to use the family <i>batang</i> (<i>bubuhan</i>). Except during low tide, residents will use family-owned <i>batang</i>.</p>
2.		<p>The <i>batang panggung</i> is situated in front of the dwelling at the end of the private <i>titian</i>. It is private, but can be used by neighbors. The dimensions of the <i>batang</i> range from 1 m x 1 m to 1 m x 1.5 m. On the banks of the river there are dwellings.</p>

1	2	3
3.		<p>The <i>batang panggung</i> is directly connected to the public <i>titian</i> (walkway). Usually, this happens in areas that have abrasion, so it does not require a long walkway to reach the water at low tide. It is private (owned by a house on the land), but it can be used by others. The dimensions of the <i>batang</i> range from 1 m x 1 m to 2 m x 3 m.</p>
4.		<p>The <i>batang panggung</i> is directly connected to the riverbank behind a dwelling (A) and next to another dwelling (B). It is a private property, but the <i>batang</i> adjacent to the dwelling (B) can be accessed by neighbors in need. The dimensions of the <i>batang</i> range from 1 m x 1 m to 2 m x 3 m.</p>
5.		<p>The <i>batang lanting</i> is directly related to the public <i>titian</i>. It exists only in Panglima Batur, with dimensions of 3 m x 4 m. It is used by some residents together even though they are not of the same family group (<i>bubuhan</i>). The group is based on RT limits.</p>
6.		<p>The terrace of the <i>lanting</i> house is used as <i>batang</i> by residents and neighbors around. The porch is 1 m wide. It is used by neighbors during low tide as they cannot use the <i>batang panggung</i>, whereas <i>lanting</i> house will follow the tides of river water.</p>
7.		<p>The <i>batang panggung</i> is directly connected to the dock. It is originally used to tether a boat, but it is also used by residents for other activities.</p>

Source: field observations

4.3 Batang as Domestic Space

The original function of *batang* is as a place for bathing, washing, latrine, docking, and boat tethering. Bathing and washing are the most frequently performed domestic activities in the *batang*. It is rarely used as latrine because the residents already have toilets at their houses,

although some of the houses do not have any and the owners must go to *batang*.

In subsequent developments, as an element of riverside settlements, *batang* can also be used by residents for a variety of domestic activities. This is presented in the following table.

Table 3. The use of space for domestic activity on the *batang*

No.	Group of Activity	Type of Activity	Actors	Time	Photo
1	2	3	4	5	6
1.	Household Chores	Washing clothes	Women Young women Men	05.00–10.00 16.00–18.00 According to the needs At high tide	
		Washing dishes	Women Young women Men	08.00–10.00 16.00–18.00 According to the needs At high tide	
		Washing the ingredients	Women Young women	08.00–10.00 16.00–18.00 According to the needs At high tide	
2.	Extended Chores	Shopping	Women Men	07.00–09.00	
3.	Passive Leisure	Relaxing	Women Men Teens Children	09.00–11.00 14.00–16.00	
4.	Interactive Leisure	Chatting	Women Men Teens	05.00–11.00 16.00–18.00	
		Playing	Children	15.00–18.00	
		Doing a hobby (fishing)	Men Young men Children	09.00–13.00	
5.	Private Needs	Bathing	Men Women Teens Children	05.00–09.00 16.00–18.00	

Source: field observations

In the Panglima Batur area, there are *batang lanting* that serve the public. The main thing that is done by the residents is the domestic activity. Occupants on land and riverside feel more comfortable doing domestic activities such as washing clothes and bathing in *batang* than at home (even though they have already been connected to a water supply network from PDAM). Often times, they also wash food ingredients in the *batang* and then rinse them with clean water at home. They revealed that doing activity on the *batang* gives them more space (3 m x 4 m for *batang lanting* and 1 m x 1.5 m to 2 m x 3 m for *batang panggung*). In the *batang* they can use water more freely than they can at home. In addition, they can meet their neighbors, greet each other, and talk with each other there. *Batang lanting* and *batang panggung* are not only useful as domestic space, but also useful as a socializing space between neighbors while doing activities.

In the mid-morning and afternoon, the *batang lanting* and *batang panggung* are quiet from the service activity. At this time it is used by fathers for fishing and by mothers for relaxing while babysitting (bringing toddlers with them to see the river). Users of the *batang lanting* and *batang panggung* are not only residents who have a house on the riverbank, but also residents who have homes on the mainland. This indicates that the river has an appeal to the domestic activity of the inhabitants, not only for the water supply, but also for the cool scenery.

In the Kampung Kenanga area, the *batang* are positioned along the walkway (*titian*). Each *batang* is owned by a house on the opposite side of the *titian* parallel to the *batang*. This house is the main house, then several houses are developed to the left, right, front, and back of the main house. These houses are inhabited by children, grandchildren, and relatives (one family cluster/*bubuhan*), so one *batang* is used by one family cluster. Residents use the *batang panggung* for domestic activities based on family ownership. Usually, at high tide, one family cluster will use the *batang* together for bathing and washing, but other people (not the same *bubuhan*) may use this *batang*.

4.4 The Cultural Manifestation of the River on the *Batang*

Daily activities reflect the way of life as a cultural manifestation. Domestic activities carried out daily by occupants in riverside settlements embody the culture of riverside communities. This domestic

activity is related to household activities carried out inside and outside of a dwelling. *Batang* is a fixed element contained inside and outside the dwelling. In this *batang* various domestic activities are carried out, including not only household core activities such as washing clothes, washing dishes, and cleaning food, but also other domestic activities like passive recreational activities such as leisure, active recreational activities (e.g., talking, playing, doing hobbies (fishing)) and private activities (e.g., bathing).

Domestic activities carried out on the riverside are not only those directly related to the river itself in the form of domestic service activities (bathing and washing), but also those related to the atmosphere of the riverbank. Activities can include sitting for relaxing while looking at the river, chatting, fishing, and playing. The existence of a river supports the residents to use riverside *batang* as their activity space. This indicates that the riverside is not just a "used space", but also a "looked-on space". There is an active relationship between the river, inhabitants, and activities. River functioned as a site with *batang* as a place of activity for the residents of riverside settlements.

The domestic activities carried out in the *batang* are not performed alone. Usually they are performed together with other residents (neighbors) while they are greeting and talking with each other. In this way relationships are established. One domestic space in the neighborhood is used together and alternated by all residents of the settlement. As Koentjaraningrat (1979) points out, most Indonesians engage in activities outside the dwelling while talking with neighbors and enjoying the atmosphere, and they do not covet a life of solitude (privacy). If bathing and relaxing are a private activity in the Western culture, it is not the case in the culture of riverside settlements. Communal life and togetherness in conducting domestic activities become the main characteristics of the society. The community members appreciating the way of life together, engage in interactions largely, and cooperate with their neighbors (Koentjaraningrat, 1979).

The private *batang* on the riverbank (limited by the public *titian*) have been experiencing a shift in meaning. Based on the historic and settlement patterns of the riverbanks, the riverbanks are occupied by houses on the land facing the river and parallel to the *batang*. *Batang* serve as docks and areas for conducting domestic services (bathing, washing dishes, and washing clothes). Every house has this *batang*. In the present development, these *batang* are legally private property, but in perception

of other occupants, they are public property. Owners give freedom for anyone to use it. They are used by not only the neighbors by the riverbanks, but also by residents on land.

It is similar with personal *batang* located in front of the house (side by side with the house or side by side with private *titian*). It can be used by anyone who needs it without the permission of the owner. The private *batang* is changed to public property. Residents do not give restrictions, so anyone can use it. The value of "*basamaan*" (sharing) adhered to by settlers is strong, so there is no conflict in the use of domestic space together, especially in the domestic space associated with the river.

5 CONCLUSIONS

Batang is a riverside settlement element that supports the domestic activities of residents. Based on the construction, *batang* are divided into two types: *batang lanting* (floating construction) and *batang panggung* (pole construction). Based on its relation to shelter, *batang panggung* are divided into 4 (four) types, namely 1) *batang* located in front of family cluster (*bubuhan*) adjacent to the public *titian* (walkway), 2) *batang* located in front of the dwelling at the end of the private *titian* or in front of the terrace, 3) *batang* that are directly adjacent to the public *titian*, and 4) *batang* that are directly related to dwellings, situated in the back or side of the dwelling. There is another type of *batang* that is directly related to the dock. *Batang lanting* are divided into 2 (two) types, namely 1) *batang lanting* that is connected to the public *titian* and 2) terrace *lanting* houses that serve as a *batang*.

The cultural manifestation through domestic activities in the *batang* shows the following:

- a. active connection between rivers, occupants, and activity;
- b. riverbank functions as a "used space" and a "looked-on space"; and
- c. the value of "*basamaan*" (togetherness) held by residents of riverside settlements when conducting domestic activities.

This research indicates that the existence of the *batang* is indispensable in the sustainability of riverside culture in riverside settlements.

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