

ISLAMIC VALUES AND SUSTAINABLE ARCHITECTURE STUDY ON CHILDREN SPACE IN BALEKAMBANG PARK, SOLO, CENTRAL JAVA, INDONESIA

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ABSTRACT

Playchild, playgroup and many others will come to Balekambang Park, Solo to refreshing and become better quality of live. The public open space in Balekambang Park adds water diffusion district and it is a mandatory glory plan to be supported. It was build by Local Government Surakarta in the 2008 year makes an attempt on Taman Balekambang revitalization to be returned to condition initially after during through years immerses in a real condition concerns. It was build as a taken of parents love. It was build by Kanjeng Gusti Adipati Mangkunegoro VII in oktober 26 the year of 1921 as his taken of love to two his putri. That is 10 hectare widely why initially this park divided to become two areas. Firsrtly area called Partini Tuin and second area called partinah Bosch. Solo has many children have playground openspace which none at home. Location of the research is Balekambang Park, Solo, at Central Java, Indonesia. The objectives of the research are to study how far Islamic values and sustainable architecture has been applied in Balekambang Park, Solo. Islamic Values and sustainable architecture principles are synchronized. Rationalistic qualitative method by using formula T (Throughput) = W (Welfare) - D (Damage), where T expected to be maximum. The research uses literature study, survey and interview method. The result showed that both of the principles are synchronize. Sustainability assessment in Islamic houses has shown by maximum T , maximum W and minimum D .

Keyword: Islamis values, Sustainable architecture, Balekambang Park, Children space

INTRODUCTION

Balekambang Park, located around 1 kilometre direction of west Tirtonadi Bus station Solo. The real place is one of historic ommission, to Swapraja Mangkunegaran domination. It was build as a taken of parents love. It was build by Kanjeng Gusti Adipati Mangkunegoro VII in oktober 26 the year of 1921 as his taken of love to two his putri. That is 10 hectare widely why initially this park divided to become two areas. Firsrtly area called Partini Tuin (Partini Park) Partini is name of eldest putri of Kanjeng Gusti Adipati Mangkunegoro VII. Second area was park fulfilled by trees, named Partinah Bosch (Partinah forest) is meaning Water Garden Partinah. As does Partini, Partinah also is putri from Kanjeng Gusti Adipati Mangkunegoro VII. It was called housing floats to Solo public. He was buid 'tobong ketoprak' and 'gedogan kuda' too. Nowadays both have destroyed.

Besides existence of urban forest park and water garden, Balekambang also famous by existence of the Ketoprak club house. During the feather in one's cap, before private sector television era, Ketoprak club house always multitude full of audience. They volunteer stood pressure otherwise gets seat. One of group enlarged by this ketoprak building is Srimulat group solo led by Mr Teguh

Along run of pamour time Balekambang Park started gloomy. Ketoprak building leaved by audience because they were preferred watched television in their houses. Clear water garden turned into turbid and graceless. local government of That moment, what sees existence of starting park leaved to tries draws attention of visitor by renting land of the entertainment amusement world perpetrator. Result of his its in park emerges discotic, massage parlour and restaurant resulting Balekambang park is negative public image.

Now, again Balekambang Park emerges to become balmy urban forest equiped with by king sized rareness plant, statues, water fountain, amphi theater and park chair is having design on unique. Required commitment from all party (sides, especially local government Solo is period to come to take care of and preserves existence of this park) The

role of and public also not less important to partake protects and takes care of this park. Streaks done by member of public Visiting Park has started seen in some places.

The year 2008, Government of Solo Town makes an attempt on Balekambang Park revitalization to be returned to condition initially after during through years immerses in a real condition concerns. This revitalisation is local government plan to return public open space and adds water diffusion district. A mandatory glory plan to be supported.

Opening of revitalization Balekambang Park done at the time of World Heritage Cities Conference and Expo, focused in Solo, marked with title of Gala Dinner by host, the Government of Solo Town. Now, the park has been returned at the authenticity, as according to intention from the development. Beside aim to comfortable and beauty of town, also meant for town lung, felt hardly required for town is being growing going forward various sectors. It will be the only park residing in all Central Java provinces.

Park open to be visited from 07.00 up to 18.00, where we pampered by wind chill, mobility and loveliness a group of white pigeon bird, bird chirp as dulcet hymn in visitor ear, and four tame deer also seen gallivantes is free and not left behind, rareness crops which spread over in areal park. There is also some buildings, like float housing, amphi theater capable to accomodate around 400 audiences, music-hall and two stone Meteor put down by fishpond, B.R.A. Partinah statue, seen classyness with Java clothes, poses for sitting, and brings fan is put down in the middle of pond becoming central of park. While in the middle of artificial lake, stands up B.R.A. Partini statue, upstands by using Java cloth. Furniture Street like the park chairs, complete with the table, spread over in every angle of areal park. Footpath that is wide enough from material paving encircles park, so that visitor earned freely did jogging or just encircling to enjoy shadow over there.

Playchild, playgroup and many others will come here to refreshing and become better quality of live. Public open space and adds water diffusion district. a mandatory glory plan to be supported. Islamic values and Sustainable architecture study on Children Space in Balekambang Park, Solo, Central Java, Indonesia has been studied how far was applied their concept.

LITERATURE REVIEW

Park which in similar by KGPA. Mangkunegoro VII on 26 Octobers 1921, deconvolution broadness reaches 10 hektare consisted of two divisions, that is lake area is named Partinituin (Park Partini). Other division is park fulfilled by trees, named Partinahbos (Forest Partinah). The park is materialization of love KGPA Mangkunegoro VII to both his putri, but on the way history, more in recognizing by the name of Balekambang.

KRMT Tranggono, Pura Mangkunagaran liaison, explains Balekambang Park built by Sri Mangkunegara VII formerly to travel. The concept, imitates forest and lake in Dutch, kind of public space. Culture values, planology, and travel potency will maintain from supporting facilities for Balekambang Park. Water diffusion district and amenity forest functioning as town lung. Water contents below Balekambang Park enough for drinking water peoples in the middle of Solo Town. It is cistern district for Solo as well as 'penggelontoran', sanitation system there need to be repaired, that be able to water current if rain happened.(Wawasan,2009)

Islam places rahmatan lil alamin values in every way of life, doesn't destroy, full of God`s mercy, love live, written in Al-Qur'an Surat Al Anbiya (21:107) with the meaning: " And We don't delegate you (Muhammad) except for becoming blessed to all nature (rahmatan lil alamin)". God creates man as Khalifah on this earth. Khalifah means as a leader, preserver and custodian at once. Therefore man have obligation to take care, look after and preserve this nature for both of importance now and next generation. Islam is rahmatan lil'alamin religion (blessing for all nature), therefore environmental establishment must be principle to nature conservation, compatible-preserve-everlasting (Noe'man,2003). So the values in both Al Qur'an and Hadits require going concern peace and life (sustainable).

Earth has crisis that the affect can be felt by us is world issue now. Global warming, uncertain weather, air contamination, natural destruction, environmental damage and energy crisis causing at lowering life quality. Natural resources in the world are limited. Hence overconsumption of man using natural resources, inability nature to supply and renews the source more for man needs. (Moughtin, 2005). If this condition were continued, man and creature in earth couldn't long-lived. Construction cause approximately 48% damage from taking over natural resources until pollution yielded by it. We must take care and minimalisms damage in earth such as sustainability construction

movement (sustainable construction) and possibility to contribute kindness for the earth (Akmal, 2007). Sustainable architecture is an applied architecture concept to support sustainability concept, that is longstanding natural resources maintain concept related to both natural resources vital potency age and human ecologic environmental such as climate planet system, agriculture system, industry, forestry, and architecture (Probo H, 2007)

The development of technology within natural resources removal has been helped human welfare. On the other hand this restively caused crisis and decreasing environmental life quality. Sustainable Habitat System is a habitat system concept for sustainability architect development applying reduces environmental damage and increase life quality. Fundamental Formulation for sustainable Habitat (Sustainability Residence Basic Formula) by using formula $T=W-D$ (Hiroshi Kawase, 2007).

Table 1 : synchronization between Islamic values and sustainable architecture principles.

No	Islamic architecture philosophy	Islamic architecture principles	sustainable architecture principles
1	<p>QS. Al Anbiya (21) : ayat 107 :</p> <p>وَمَا أَرْسَلْنَاكَ إِلَّا رَحْمَةً لِّلْعَالَمِينَ</p> <p>107. Dan Kami tidak mengutus engkau (Muhammad) melainkan untuk (menjadi) rahmat bagi seluruh alam.</p> <p>Rahmatan lil alamin (blessing for all nature)</p>	Established environmental architect which nature preservation (compatible-preserve-everlasting)	Sustainability architect observing nature preservation, reducing environmental damage and increasing life quality, $T=W-D$
2	<p>QS. Yunus (10) : 25 ,</p> <p>وَاللَّهُ يَدْعُو إِلَى دَارِ السَّلَامِ وَيَهْدِي مَن يَشَاءُ إِلَى صِرَاطٍ مُسْتَقِيمٍ</p> <p>25. Dan Allah menyeru (manusia) ke <i>Dārussalām</i> (surga), dan memberikan petunjuk kepada orang yang Dia kehendaki ke jalan yang lurus (Islam).</p> <p>As Salam(friendliness)</p>	Established Islam environmental architecture which nature safety and environment friendliness(safe, friendly and tolerant)	Sustainability Architect gives appease, ruthless, comfort, security and safety, increasing O ₂ and reducing CO ₂
3	<p>QS. Ar Rum (30) : 30 Fitroh(humanitarian)</p> <p>فَاقِم وَجْهَكَ لِلدِّينِ حَنِيفًا فِطْرَةَ اللَّهِ الَّتِي فَطَرَ النَّاسَ عَلَيْهَا لَا تَبْدِيلَ لِخَلْقِ اللَّهِ ذَلِكَ الدِّينُ الْقَيِّمُ وَلَكِنَّ أَكْثَرَ النَّاسِ لَا يَعْلَمُونَ</p> <p>30. Maka hadapkanlah wajahmu dengan lurus kepada agama (Islam); (sesuai) fitrah Allah disebabkan Dia telah menciptakan manusia menurut (fitrah) itu.⁶³⁹ Tidak ada perubahan pada ciptaan Allah. (Itulah) agama yang lurus, tetapi kebanyakan manusia tidak mengetahui,</p>	Established Islam environmental architecture parallel with human disposition (comfort-accessibility- solidarity)	Sustainability Architecture gives comfortable environment defined as environmental physics assessment: for heat, light, and sound.
4	<p>QS. Al Isro(17) : 27</p> <p>إِنَّ الْمُبَذِّرِينَ كَانُوا إِخْوَانَ الشَّيْطَانِ وَكَانَ الشَّيْطَانُ لِرَبِّهِ كَفُورًا</p> <p>27. Sesungguhnya orang-orang yang pemboros itu adalah saudara setan dan setan, itu sangat ingkar kepada Tuhannya.</p> <p>Useful functional</p>	Islamic architecture must be beneficial and functional (productive – functional - Useful)	sustainability architecture are productive, multi functional and productive : low energy, usage energy saving, long live, reuse, reduce and recycle
5	<p>QS. Al Hijr(15) : 19, Tawazun (balance)</p> <p>وَالْأَرْضَ مَدَدْنَاهَا وَأَلْقَيْنَا فِيهَا رَوَاسِيَ وَأَشْبَاثًا فَأَبْقَيْنَا فِيهَا مِنَّا مَآثِرًا</p> <p>19. Dan Kami telah menghamparkan bumi dan Kami pancangkan padanya gunung-gunung, serta Kami tumbuhkan di sana segala sesuatu menurut ukuran.</p>	Established environment must be balance between requirement and performance (balance, compatible harmonic)	Sustainability architecture are maintain both of balance and harmonic nature.

source : Al Qur'an , Noe'man,2003

AIMS OF THE RESEARCH

The objectives of the researchs are to study how far Islamic values and sustainable architecture has been applied to Children Space on Balekambang Park, Solo, at Central Java. The researchs benefits are to know Islamic architecture and sustainable architecture principles synchronize, scientific documented to enhance knowledge and developed according to applied.

RESEARCH METHOD

Data is obtained with survey and questionnaire as purposive sample, building sketches and photographs. Playchild aruon Balekambang Park used to applied habitat sustainability system model data. Rasionalistic Qualitative research has been used. How sustainable those building are observed by using formula which building houses output is bigger than damage factor. Rationalistic qualitative method used for sustainability measurement by using formula T (Throughput) = W (Welfare) - D (Damage), where T expected to be maximum.

SAMPLE RESEARCH DATA

New face of Balaikambang Park



Figure 1 : Balekambang Park (source : file:///D:/WAJAH BARU TAMAN BALEKAMBANG « V3ist's Travel Blog.htm)



Figure 2 : Balekambang's park chair (source : file:///D:/KabareSoloBalekambang.htm)



Figure 3 : Balekambang's Gate (source :survey,20 juli 2009)



Figure 4 : Balaikambang Park was build as a taken of parents love (source : file:///D:/KabareSoloBalekambang.htm, and : file:///D:/WAJAH BARU TAMAN BALEKAMBANG « V3ist's Travel Blog.htm)

Central Park of Balekambang with B.R.A. Partinah statue, seen classyness with Java clothes, poses for sitting, and brings fan .In the middle of artificial lake, stands up figure B.R.A. Partini statue, upstands by using Java cloth








Figure 5 : Children Space on Balekambang Park(source : survey,20 juli 2009)

Playchild, playgroup and many others will come here to refreshing and become better quality of live. Public open space and adds water diffusion district. A mandatory glory plan to be supported. Islamic values and Sustainable architecture study on Children Space in Balekambang Park, Solo, Central Java, Indonesia has been studied how far was applied their concept. Rahmatan lil alamin of Islamic value concept has been used on environmental architecture which nature preservation (compatible-preserve-everlasting). Sustainability Architecture gives comfortable environment defined as environmental physics assessment: for heat, light, and sound has been enough. The workers got water from the small canal with flowing water. They used the small generator and long plastic pipe for sprinklers plant and tree. Balekambang Park is good water diffusion district. It is balmy and harmonic place to secede a moment

from frenzied of life, when doleful liver or just was stillness. Hopefully we can look after ommission becoming great, for the shake of this beloved town, is starting fulfilled by Mall and other consumptive supporting facilities

Table 2 : Islamic value and Sustainable architecture on Children Space on Balekambang Park

T :Throughput T=W-D	Sample values	Children Space on Balkambang Park
<p>W : Welfare Evaluation prosperity life target : standard life quality level MAXIMIZATI ON</p>	<p>Sa : Safety Building safety factor : construction, material, method, space, open space</p> <p>Islamic architecture must be beneficial and functional (productive – functional - Useful)</p>	<p>Safety : well guaranteed safety</p> <ul style="list-style-type: none"> . Balekambang Gate with traditional style . Balekambang Park space for children and some one . wood construction foundation, wood ceiling . Ceiling material, foundation, window, door and space isolation material used of teak wood. . Some of there partition made by brick house. . some constructions made by reinforced concrete . sunlight, sunrise and natural light accessible on the park  <p>Main gate and terrace with well guaranteed safety</p>
	<p>R : Relief, relief evaluation in reference model Established environment must be balance between requirement and performance (balance, compatible harmonic)</p>	<p>Relief: good, better. Open space which also used as space to play at outside. Playchild, playgroup and many others will come here to refreshing and become better quality of live</p> 
	<p>H : Health</p>	<p>Healthy: Islamic healthy park with natural lighting and natural airflow. Established environment must be balance between requirement and performance(balance, compatible harmonic)</p> 
	<p>C : Comfort , for heat, light, and sound, physical level of comfortable environment is defined</p>	<p>Comfortable for living, unworn and sunlight accessibility through the big trees in the Park. Quietly cover enough to disturbed sound.</p> 
	<p>Se: Sense, Sustainable habitat sense : habitat design and standard environment</p>	

		sense target : beautiful, maximal
Conclusion : W maximal		
D:Environmental Damage, Damage reduction	Damage reduction : Risk : labor accident risk for construction loss to damage translation	D : Environmental Damage < minimum Loss lose out replacement: no labor accident risk for construction loss to damage translation
	Recycle : Waste recycle technology, saved material to LCC, LCE, LCCO2 : LCE : Life Cycle Energy	Waste recycle technology, saved material to LCC, LCE, LCCO2 Public open space and adds water diffusion district. a mandatory glory plan to be supported. life time : traditional wooden house (more than 30 year) life time: conventional brick house (more than 30 year) Reinforced Concrete (more than 40 year)
	Reuse SRB-DUP Earthquake Resilient structure, reuse material to LCC,LCE,LCCO2LCCO2 : Life Cycle CO2	Reuse SRB-DUP, brake structures / earthquake resilient structure : use reinforced concrete structure to building construction. Reuse LCC,LCE,LCCO2 material
	Reduce : Usage energy saving, long life reduced energy to LCC,LCE,LCCO2	Reduce : use energy saving, long life : Maximum utilizable, reduced energy to LCC,LCE,LCCO2 Established environmental architect which nature preservation (compatible-preserve-everlasting)
Conclusion : D minimal		

Source : writer analysis, 2009

CONCLUSIONS

Islamic Architecture characteristic must be maintain nature preservation (compatible-preserve-everlasting), environment friendliness (safe, friendly and tolerant), human disposition (comfort- assessable-solidarity), functional (productive–functional–useful) and balance (balance-compatible-harmonic). T=W-D is sustainable architecture purpose. Architect must bring God`s mercy and benefit to both all nature and environment living. Islamic architecture is similar to sustainable architecture. Both of them are synchronize and compatible.

Balekambang Park, Solo< Central Java, Indonesia consist of Safety: well guaranteed = towards maximum, Relief: good enough = towards maximum, Health: enough, natural daylight and nature airflow = towards maximum, Comfort: good relatively = towards maximum, Sense: good, W= towards maximum. D = Environmental Damage, consist of: LCE: Life Cycle Energy: minimal, LCCO2: Life Cycle CO2: less/minimal, LCC: Life Cycle Cost: less/minimal. T(Throughput) = (Welfare - Environmental Damage) can reach because of biggest T factor, big W factor minus small factor D. Research sample study is for Islamic values and sustainable architecture on space children on Balekambang Park will be enough qualitatively because maximum usage and minimum damage factor.

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