

Quality of common space in traditional residential area in perspective of use satisfaction

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Abstract. This paper intends to discover use satisfaction of common space in traditional residential area, in Desa (Village) Adat (Custom) Pakeraman Tenganan Pegeringsingan Bali Indonesia. Based on exploratory method, this paper intends to reveal the perspective of recent use satisfaction of the common space. The space considered successful if physical, cognitive, and social needs might perform the requirements. Physical needs refer to aspects of provision and feasibility, accessibilities, and safety; cognitive needs refer to achieving comfort and pleasure within space; and social needs refer to social affiliation, connection, and relation. Provision and feasibility regards as significant for best use satisfaction and important factors in a successful open space design process. Common space of the village facilitates various activities differed into ritual activities consist of custom and religious ritual activities regard as communal activities, and non-ritual activities consist of daily and tourist's activities regard as common activities. In the other hand village is not formally designated for tourism; in fact, village is still opened to the tourists. To this extent, village could not evade tourists influence, how the use satisfaction of the common space would be. In regard with physical needs the village has been degraded in safety aspect; in regard with cognitive needs the village can fulfil the physical aspect; in regard with social needs the village can achieved all aspects. In fact, the more rigorous research is still needed concerning quality improvement.

1. Introduction

Common space in residential area recognized as a shared space which its use is limited to residents; in short can be understood as extension of living space just for the residents [1]. According to space hierarchy in regard with privacy, residential common space regards as a private space. But since the space is used by all residents of different families, the space regards as semipublic space as well. Traditional residential common space of Desa Adat Pakeraman Tenganan Pegeringsingan Bali Indonesia, further mentioned as *desa adat* Tenganan Pegeringsingan, has been fully occupied by distinct activities that differed into ritual activities that consist of custom and religious rituals; and non-ritual activities that consist of daily and tourists' activities. According to character of activities, the ritual activities regards as communal, and the common space regards as more private. On the contrary, the non-ritual activities regard as common, and the common space regards as more semipublic even more public if comes up to tourist activities.

This paper intends to reveal how the constellation of various occupations of various activities by various groups of village people with their respective characters, will affect the use satisfaction of the traditional residential common space of Desa Adat Tenganan Pegeringsingan. Physical needs refer to aspects of provision and feasibility, accessibilities, and safety; cognitive needs refer to achieving



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comfort and pleasure within space; and social needs refer to social affiliation, connection, and relation. Provision and feasibility regards as significant for best use satisfaction and important factors in a successful open space design process.

The common space mostly occupied by custom and religious ritual activities, which obligate people of village to be involved within by sharing. In the other hand village is not formally designated for tourism but village is still opened to the tourists. To that extent village could not evade tourism influence, specifically could not evade growth of creative community. If the mentioned activities of common space are mostly determined by custom and religion obligation, how the use satisfaction of common space comes to be required or has the use satisfaction been shifted to economical purpose.

The significance of this study, almost space in vernacular and traditional residential area context experiences effectively invisible [2], which means experiences various space quality degradation since they are not well maintained so that less used. This paper will figure out, correlation between space quality with use satisfaction of the space that hopefully can be applied in the wide range of space and wide range of place.

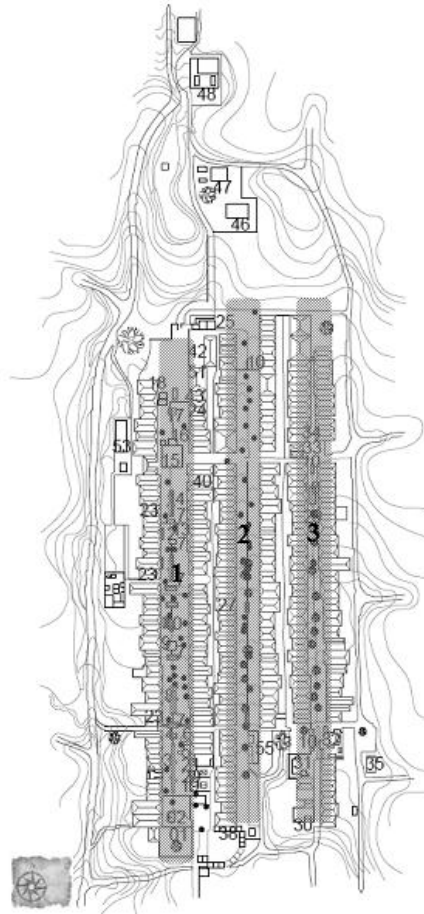


Figure 1. Layout of Desa Adat Pakerman Tenganan Pegeringsingan Bali Indonesia [3].

2. Literature review

Common space in residential area is perceived as a shared space which is limited to residents; in short can be understood as extension of living space just for the residents [1]. In comprehending a common space of traditional residential area, we should understand its communal space as well since village has been idealized as *crescive* (to increase) community design [4], and to see the difference between both spaces. Etymology term of communal space regards the space as place that enfolds shared activities of group of people within a region or community. According to term of communal living,

communal is sharing way of life activities, which is carried out by group of people voluntarily with conviction that would be better if they are living together than individually. Furthermore, in the context of community, group attachment is more important than individual interest.

Communal space of built environment has interrelation with attached social organization. The system of built environment makes possible attached social organization developed better than any other social organization [4]. Built environment hold the role in developing either formal or informal social organization, besides has capability to enfold various activities, interaction pattern, privacy, and proxemics behavior which can figure out pattern and design of social interaction. Social organization in traditional context comprehended as kinship structure of culture or society, particularly in establishing network system relates to ancestor and residence.

3. Exploratory design method

According to exploratory design methods, interpretation data follows the sequence of data collection. Interpretation initially applied to the result of qualitative data analysis followed by interpretation to the result of quantitative data analysis. In case of use satisfaction of traditional residential common space Desa Adat Pakeraman Tenganan Pegeringsingan Bali, this paper explains the result of qualitative data collection along with initial analysis and interpretation. However, this research has achieved parts that can be qualitative assessed any further and parts that need further exploration and research by way of quantitative method see Table 1.

This part is highlighted descriptive data of the village. Social organization of Desa Adat Tenganan Pegeringsingan divided into adat (custom) and dinas (government) organizations. Dinas is a part of governmental system that designed outside-inward, whilst adat as traditional organization cannot be treated in a same way since it grows from inside [4]. Social activities embraced by the organizations have been occupying the traditional residential common space of village. Desa Adat Tenganan Pegeringsingan has 3 banjar, in this case means align, span along Kaja (North)–Kelod (Selatan)–ward, see Figure 1. Banjar 1: Banjar Kauh (West); 2. Banjar Tengah (Middle); 3. Banjar Kangin/ Pande (East). The village located at ± 85 km distance from the east side of the capital of Bali Province, Denpasar, and ± 17 km distance from capital of Kabupaten Karangasem (Amlapura).

Traditional residential common space of Desa Adat Tenganan Pegeringsingan Bali embraces ritual and non-ritual activities. Concerning ritual activities, the space more communal since the obligated activities force residents to perform the activities by sharing, but for non-ritual activities the space more common since the activities embraced just would be better if perform by sharing in short there is no obligation that has to fulfil or voluntarily. For people of desa adat Tenganan Pegeringsingan the common space would be more communal in regard with custom and religious ritual activities, but for daily and tourism activities the space would be more common.

3.1. Activities and use of common space

Common space of Desa Adat Tenganan Pegeringsingan embrace activities which differed into ritual activities consist of custom and religious rituals; and non-ritual activities consist of daily and tourist activities. The life of village people based on the law of purity, as life philosophical, has been manifested into cycle of life that consists of two parts, the drama of life and death and the growing into society [3]. Both parts represented in custom and religious ritual activities.

3.2. Ritual activities

The basic law of purity does not only determine the ritual handling of settlement, its stages and holy object which are cleansed by means of purification and kept from bad influences by means of exorcisms. Ritual ability of *kerama desa* (married couple whom trusted to manage the village) participating in all performances of their respective groups depends on their purity and being unharmed as well [3].

People of Desa Adat Tenganan Pegeringsingan do not embrace *kasta* (social stratification) like other Bali Hindu people and considered as egalitarian society. However, there is difference between

kerama desa of Banjar Kauh and Tengah with people of Banjar Kangin/ Pande concerning participate rituals. People of Banjar Kangin/ Pande participate viewer rituals. All rituals occupy the common space that consists of open space linear terraced oblong and almost buildings in Banjar Kauh and Banjar Tengah.

3.3. Non-ritual activities

3.3.1. Daily Activities. Daily activities of village people are similar with common daily activities in other villages. Common space occupied by *kerama desa* other than their residences are open space linear terrace oblong [5] and buildings i.e. Bale Kencan and Wantilan. Another daily activity relates to tourists. According to late De Mangku I Wayan Mangku Widya (prominent person of village custom), two big problems encountered are the increasing use of information technology and motorcycles that cannot be courteously managed yet. The use of motorcycles is the most visible problem to the common space. Besides crossings between people and vehicles that degrade safety of the space, the vehicles kept across the open space even if any ritual is being held.

3.3.2. Tourism. Desa Adat Pakeraman Tenganan Pegeringsingan governmentally planned for tourism [7]. According to late De Mangku I Wayan Mangku Widya village refused the plan. It is showed in discontinuation building of hotels and other properties in Tenganan area, in smaller scale showed in gate design that stays narrow and visually oblique. However, village cannot evade the influence of tourism since it is still opened to the tourists, see Figure 4. Economically, tourism has affected Desa Adat Tenganan Pegeringsingan mostly to people of Banjar Kauh and Banjar Pande/ Kangin. Village people are evolving into creative community. They are developing commodities by becoming craftsmen, see Figure 5. People of Banjar Kauh become wealthier and people of Banjar Pande/ Kangin can be freed from economic dependency to village.

In spatial context, Banjar Kauh particularly loaded on both west and east sides by displays of *kain* (fabrics) *tenun dobel ikat* Geringasing, the famous textile art of village that produced by double *ikat* (tie knot) method. However, for ritual activities the common space can be maintained from used by other than ritual activities. People of Banjar Pande/ Kangin mostly selling souvenirs made from carved leather. They align along linear terraced oblong and keep moving from one place to another to find the best place, usually places with huge shadow to protect them from the sun. The not well–design furniture and unplanned locations have made the open space degraded visually, though their presence does not significantly disturb the sacred of rituals (See Table 1).

Table 1. Common Space of Desa Adat Pakeraman Tenganan Pegeringsingan in perspective recent use satisfaction.

Use satisfaction dimensions to be evaluated		Achievement Based on activities		Further research needed
		Ritual	Non-ritual	
Physical Needs	Provision and feasibility	Fulfilled	Fulfilled	Quantitative method (Likert scales)
	Accessibilities (physical and psychological)	Fulfilled (physically)	Fulfilled (physically)	
	Safety	Degrade	Degrade	
Cognitive Needs	Comfort	Fulfilled (physically)	Fulfilled (physically)	Quantitative method (Likert scales)
	Pleasure Ability	Fulfilled (physically)	Fulfilled (physically)	
Social Needs	Social Affiliation, Connection, and Relation	Fulfilled	Fulfilled	–

4. Discussion

Residential common space considered successful if physical, cognitive, and social dimensions evaluated and might perform the requirements [1]. The dimensions include human expectations of a space from basic needs of feasibility till highest level of social needs. Physical needs relate to aspects of provision and feasibility, accessibilities, and safety; cognitive needs relate to achieve comfort and pleasure within space; and social needs relate to social affiliation, connection, and relationship. Provision and feasibility of open space in particular, regards as significant for best use satisfaction and important factors in a successful open space design process [1]. Moreover, quality of experience used to be referred as total satisfaction [1]. Besides measuring dimensions mentioned above, satisfaction and quality of experience can be regarded as credible indicators of the successful open space.

Traditional residential common space of village enfolds ritual and non-ritual activities. Concerning ritual activities, the spaces is communal since the activities obligate *kerama desa* to participate the activities by sharing, and for non-ritual activities the space is more common since the activities embraced just would be better if perform by sharing or there is no sharing obligation has to fulfil. In short, to *kerama desa* of *desa adat* Tenganan Pegeringsingan the common space would be communal in regard with custom and religious ritual activities, on the other hand if comes to daily and tourists activities the space would be more common. Both ritual and non-ritual activities will occupy the common space, in this case open space linear terraced oblong and buildings in Banjar Kauh and Banjar Tengah. Ritual activities mostly occupy open space and almost buildings in Banjar Kauh and several buildings in Banjar Tengah, i.e. Pura Dadia. Daily activities other than residences, mostly occupy the open space and several buildings in Banjar Kauh, i.e. Wantilan and Bale Kencan, and tourists' activities merely occupy the open space. The Table 1. shows the dimensions of common space in Desa Adat Tenganan Pegeringsingan that should be evaluated based on physical needs, cognitive, and social needs; and the proposed future research in order to achieve more rigorous results.

4.1. Physical needs

Regarding provision and feasibility, other than quality that needs further research, village accommodates most of their activities either in common or communal way within open space known as linear terraced oblong [5] mostly in Banjar Kauh, and within various religious and non-religious buildings. Several *pura* (small temple) are located outside village and the location accordingly determined by the sea-oriented sequence of ritual processes. The common space that consists of open space and various buildings are easy-to-walk places, however the so called walk able places are not fully occupied by walking anymore since motorcycles penetrated the common space. On the contrary design of pedestrians' path pavement made of local materials mix of grass and *batu kali* (river stone) has been improved into comfortable one.

Accessibilities comprehended as human freedom and capability to achieve their basic needs in order to preserve their quality of life. In physical way, all people of *desa adat* Tenganan Pegeringsingan have the same right to access and use almost facilities except the sacred facilities. This must have been the expression of egalitarian society since they do not accept *kasta* (social stratification) as followed by most of Bali Hindu people. People of *desa adat* Tenganan Pegeringsingan called themselves as Bali Aga (the genuine or establishment of Bali). However, there is still social segregation within common space. All *kerama desa* from people of Banjar Pande or Kangin (East) can participate in viewer rituals. Moreover, people of Banjar Pande would not have any opportunity to become *kelian adat/ desa* (custom leaders).

Safety and security is important factor that will affect the use of open space and experiencing quality within. Variables such as presence of lighting, surrounding visibilities, surrounding types, and presence of crossings usually apply for measuring safety and security. The open space of *desa adat* Tenganan Pegeringsingan linear terraced oblong spans along Kaja (North)–Kelod (South) orientation without any major blocking from other structures, so that the open space gains enough natural lighting from east–west ward. Accordingly, the lighting can give enough exposure to surrounds facilities and give maximum visibility. Desa Adat Tenganan Pegeringsingan was designed for walk able scale and at

the beginning can be freed from crossings between human and vehicles, mostly automobile. However, since penetration of motorcycles occur; the quality of open space has been degrading in regard with escalation of crossings in Banjar Kauh.

4.2. Cognitive needs

Comfort indicators of open space considered as idea of safety, cleanness, and presence of outdoor furniture, besides establishment the atmosphere of relaxation, refreshment, avoiding fright, and provide opportunity to form social relationship. Furthermore, micro climate and climate comfort are important criterion of successful a common space design [1]. In regard with comfort based on initial observation, Desa Adat Tenganan Pegeringsingan regards as less comfortable in some extents. The conditions of safety, cleanness, atmosphere relaxation and refreshment can be assessed immediately as less comfortable. Whilst avoiding fright and opportunity to form social relationship needs further exploration and research.

Pleasure ability comprehended as ability to participate in a nature-based program, through space diversification within a residential complex so that enable residents have sense of identity, ownership, and responsibility toward their habitat and sense of integration. Aesthetics features of open space such as presence of vegetation, water, statue, fountain, pavement, and animal life regarded as factors that affect to space usage [1]. Based on initial observation, despite attributes which more attached to inhabitants that needs further research, common space of Desa Adat Pakeraman Tenganan Pegeringsingan furnished by several aesthetic features such as open space linear terraced oblong *kaja-kelod* (north-south), vegetation, availability of pure water though has improved into modern system, pavement as mentioned earlier made of local material grass and *batu kali* (river stone) cladding, and huge shadow shaped along linear terraced oblong by existing vegetations and huge buildings [5].

4.3. Social needs

Social needs of common space of Desa Adat Tenganan Pegeringsingan in the context of communal space differed into 3 levels [4]. Firstly, external linkages level concerning relationship between Desa Adat Tenganan Pegeringsingan and its sister villages outside. The relationship between Desa Adat Tenganan Pegeringsingan with the sister villages i.e. Bedahulu and Ngis Village was formed based on historical reason. Communal meeting between villages prominent person is still periodically carried out at 9.00 PM, usually after *desa adat* Tenganan Pegeringsingan held a ritual; Secondly, institution or residential level concerning daily activities, management of village, and preparation for custom and sacred rituals; Thirdly, residential unit or family level concerning community and common activities which are carried out within residential area, including all *bale* (living room), *sanggah* (small temple), courtyard, and *angkul-angkul* (residential unit gate).

5. Conclusion

Traditional residential common space of *desa adat* Tenganan Pegeringsingan enfolds both ritual and non-ritual activities. Concerning ritual activities, the space act as communal space since the obligated activities have forced residents to perform the activities by sharing, but for non-ritual activities the space act as common since the activities enfolds would be better if perform by sharing. The intersection between communal and common spaces occurs on the common space of *desa adat* Tenganan Pegeringsingan, so that the space usage can be easier and simpler.

References

- [1] Shabak M, Norouzi N and Khan T H 2012 An Attempt to Measure the Success of Residential Common Space: A Case Study in Malaysia *International Proceedings of Economics Development and Research* 56 148
- [2] Rapoport A 1990 *Meaning of the Built Environment: A Nonverbal Communication Approach* (University of Arizona Press)
- [3] Ramseyer U 2009 *The Theatre of Universe, Ritual and Art in Tenganan Pegeringsingan Bali*

(Basel: Museum der Kulturen Basel)

- [4] Lang J 1987 *Creating Architectural Theory, the Role of Behavioural Sciences in Environmental Design* (New York: Van Nostrand Reinhold Company Inc.)
- [5] Parimin A P 1986 *Fundamental Study on Spatial Formation of Island Village, Environmental Hierarchy of Sacred–Profane Concept in Bali* (Japan: Osaka University)