ARJ: Architectural Research Journal

https://www.ejournal.warmadewa.ac.id/index.php/arj/index

The Third Typology: The Development of Catuspatha of Denpasar City

Km. Deddy Endra Prasandya[1] and Made Wina Satria[2]*

1. Architecture Dept. Universitas Warmadewa, Denpasar, Indonesia
2. Architecture Dept. Universitas Udayana, Jimbaran, Indonesia
*email: endra.prasandya88@gmail.com

Abstract—*In Bali, crossroad or pempatan agung is not only seen as a channel of movement. Crossroad or better known as catuspatha in Balinese architecture has sacred meaning and values. In the days of the kingdoms, associated with its status as the center of the royal capital, catuspatha was functioned as the natah of the city. It was the center of citizen activities. Along with the development of times, technology, and the influence of economic, social and cultural factors, the catuspatha was increasingly experiencing development and changes. This study seeks to identify the development and changes of the catuspatha of Denpasar City based on the theory of The Third Typology by Anthony Vidler. The research method used is typical normative criticism which has the belief that buildings and urban areas are always built through a model based on the types of structural, functional, and shape. The results show that The Third Typology also applies to the catuspatha of Denpasar City, where its development and changes can be seen from three typologies, including the first typology which emphasizes natural philosophy, the second typology which is more modernist ideology, and the third typology neo rationalist which emphasizes on continuity of form and history.*

Keywords: catuspatha; modernist; nature; neo-rationalist; typology

I. Introduction

*C*atuspatha or *pempatan agung* or crossroad are two main roads that cross the village from East to West and North to South, forming a crossroad as the center of the village (Gelebet, 1982). More than just a simply crossroad, *catuspatha* has sacred meaning and values. *Catuspatha* is a symbol of *tapak dara* (the symbol of +). It symbolizes the universe as well as an antidote off evil so that the universe and its contents are safe (Donder, 2001).

In the days of the kingdoms, associated with its status as the center of the royal capital, *catuspatha* has four forming elements. It was the puri as the king's house, the market as a trade center or a place of transaction, a *wantilan* (multipurpose building) as a center of culture or entertainment, as

well as public open spaces which are part of the open space belonging to the kingdom and used as a training ground for soldiers and also as a recreational park. As the center of the royal capital, the *catuspatha* functioned as the *natah* of the city where the Tawur Ceremony was held on Tilem Kesanga, incidental ceremonies (such as *ngulapin, nebusin,* and *ngelawang*) as well as a rotation place of *bade* (Balinese bier) during the *Ngaben* ceremony (Putra, Perubahan Ekspresi Konsep Natah dalam Tata Ruang di Bali, 2003).

However, along with the development of time, technology, and the influence of social, economic and cultural factors, the *catuspatha* has developed and changed. The sacred meaning and value contained in the *catuspatha* can be said to be slightly shifted and faded. This development and changes also occur at the *catuspatha* of Denpasar City as the zero kilometer point of Denpasar City. This has undergone a development that has resulted in a shift in the value and meaning contained in it.

The *Catuspatha* of Denpasar City was chosen as the object of research because it can represent the development, change, and transformation of urban design in the city of Denpasar The purpose of this research is to identify the development, change, and transformation of urban design in Denpasar, which can be seen from the development of its catuspaths, based on The Third Typology of Vidler.

II. Method

The research method used in this study is the typical normative criticism. This criticism is based on the types of structural, functional, and form. Typical normative criticism assumes that there is a consistency in the patterns of human needs and activities that necessitate consistency in how we construct the physical environment (Attoe, 1978). There are three basic features of a building analyzed in terms of type: structure, function and form. Therefore the discussion in this study is limited to the structure, function, and form of the *catuspatha* of the city of Denpasar.

This research was conducted in two stages, literature study and identification of research objects. In the stage of the literature study, a study was carried out on the theory of Public Space Development by Haussmann. This theory is considered to support and enrich the theory of The Third Typology by Vidler as a research subject in studying the concept of *catuspatha*. In the stage of identification of the research object, identification of the *catuspatha* development in Denpasar was carried out and its suitability with The Third Typology theory.

III. Results and Discussion

The development, change and transformation of urban design in Denpasar can be seen from the development and changes in the pattern of *catuspatha* as the center of Denpasar City. There are two main theories used in this study, the theory of The Third Typology by Vidler and theories about the development of public space in three stages. The theory of three typologies related to artifacts (the building mass configuration) originated from the discovery of two typologies in architecture in the mid-18th century. The first typology is architecture that returns to nature (natural) and the second typology is one that emerged as a result of the industrial revolution.

The first typology is more rational and uses natural philosophy, in the sense of adapting natural forms that can rationally be used as architectural forms. The second typology is modernist ideology, sophisticated, and machine-based (emerged in the late 19th century and refers to Darwin's theory). The second typology aims at efficiency, creating clusters of public and commercial buildings to increase the growth, and quality of the area.

The latest development is that the third typology which appears as a form of concern for traditional cities and a critical of the modern movement. The third typology is neo-rationalist and emphasizes the continuity between form and history as well as elements of genius loci that have existed in a city. All are then reorganized into a new order.

The development of public space can be classified into three phases, namely pre modern public space, modern public space, and postmodern public space. The three developments in public space have their own characteristics. Pre-modern public spaces were generally in the form of a field, square or piazza which was prioritized as a place to accommodate human social and economic activities. Modern public spaces have switched functions. Public space at this time was functioned to accelerate the circulation of vehicles, facilitate utility, political objectives, and the health of citizens. The last is postmodern public space which is indicated by the privatization of public space in which the space is owned by either state or local government.

These three phases of public space development support the theory of third typology. In this case, there is an equality between the two theories. Public space in the pre-modern phase which tends to be open is in line with the first typology which prioritizes natural philosophy. Public space in the modern phase that functions as circulation is in line with the second typology which prioritizes efficiency and is machine-based. Public space in the postmodern phase which is managed by the government provides an opportunity for the government, especially the local government, to re-elevate city identity and loci genius so as to create a public space that is different from the two previous phases. This is in line with the third typology.

Based on the literature study that was carried out in the first stage, the development and changes in the *catuspatha* pattern of Denpasar City can be classified into three typologies. It is typology I which uses natural philosophy, typology II which is the modernist ideology, and typology III which is the neo-rationalist which emphasizes the continuity between form and history.

A. Tipologi I (Pre Modern Phase / Kingdom Era)

The initial design of the city of Denpasar which can be seen from the pattern of the catuspatha is in accordance with the first typology. The structure, function, and form of the catuspatha elements in this typology used a natural philosophy. In terms of spatial structure, the urban design in Denpasar at this phase is still very strong with the rules contained in traditional Balinese architecture. The concept used in urban design in this phase has a sacred value and has its own meaning. Such as the determination of zoning in spatial planning that pays close attention to the wind directions, especially in determining the location of the puri as the center of power. Based on Lontar Batur Kelawasan, it was stated that there are various good and bad influences of layout of puri from the center of the catuspatha.

The position of the puri in the Northeast is primary, in the Southeast it is bad because the State will be destroyed, in the Southwest it is good because the king will be respected, and in the Northwest it is good because it is believed that the king will be social (Putra, Catuspatha: Konsep, Transformasi, dan Perubahan, 2005). The consideration based on the belief of the good and bad influences of the layout of the puri as the center of the catuspatha became the main thing in determining the location of Puri Denpasar in the catuspatha.
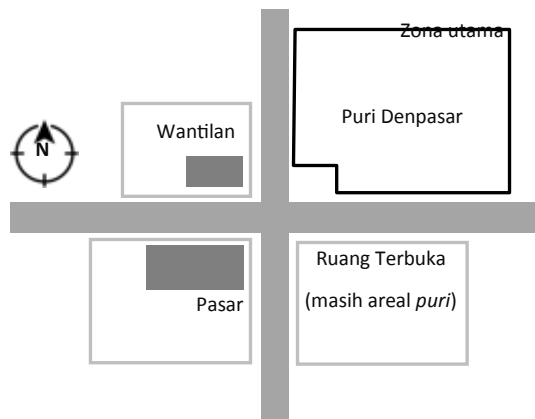

Figure. 1. The location of Puri Denpasar as the center of *catuspatha*

Regarding its status as the center of the royal capital, the *catuspatha* of Denpasar City in this phase is equipped with three other important elements, including the castle as the center of government, the market as a trade center, the wantilan building as a center for entertainment and culture, and open space used as a park (Putra, Catuspatha: Konsep, Transformasi, dan Perubahan, 2005). When viewed in terms of function, the function of *catuspatha* during the royal period was more as a space for the center of activities of the royal community. In this case, the space of *catuspatha* was more dominant as a public space that supports the social and cultural activities of the royal community. The space of *catuspatha* functioned as a *natah*, a place for Tawur Ceremony, rotating the *bade* during *Ngaben*, picking up *bhatara*, *nebusin*, and as a place to practice and improve black magic (Putra, Catuspatha: Konsep, Transformasi, dan Perubahan, 2005).

Figure. 2. Above: view from the square towards the *wantilan*. *Below:* view towards Puri Denpasar during the war of Puputan
Source: Leiden University Libraries: Digital Collections (Leiden, 2016)

In terms of shape, the building morphology used in the buildings around the *catuspatha* of the kingdom era were based on natural philosophy. This is likened to a human having three main parts, namely the head, body and feet (The concept of *Tri Angga*). The concept of *Tri Angga* provides a vertical orientation to the building layout, where traditional Balinese buildings can be divided into three parts, namely *nista angga* (leg: batur), *madya angga* (body part: walls and pillars), and *utama angga* (head part: roof).
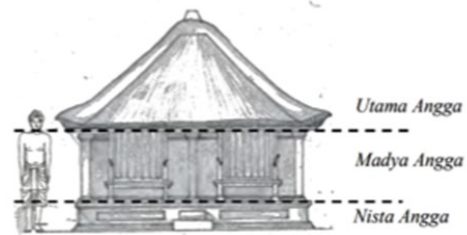

Figure. 3. The concept of Tri Angga of Balinese Architecture
Source: Sulistyawati, 2008

Natural philosophy can also be seen in the decorations used in traditional Balinese buildings. Ornaments either in the form of *pepatran, kaketusan*, or *kekarangan*. The motif of *pepatran* takes the form of many beautiful flora such as the repeated vines of leaves, flowers, pistils, and twigs. The motif of *kaketusan* motif takes the most important part of a plant which is repetitively patterned by processing to enhance its projection. The motif karangan motif usually takes the form of a faunal face with its mythological elements.

Figure. 4. The ornaments with natural philosophy in the building of Puri Denpasar (kingdom era)
Source: Leiden University Libraries: Digital Collections (Leiden, 2016)

From the description above, it can be concluded that in terms of spatial structure, function, and shape of the *catuspatha* during the kingdom era, it was in accordance with Vidler's Typology I theory. In general, the structure, function, and form of the *catuspatha* in this phase are influenced by nature, are rational in nature, and use a lot of natural philosophy which is believed to have its own value and meaning. The king arranged the city space around the castle by applying the whole *catuspatha* concept. The king emphasized social and religious values, reflected in the provision of *wantilan* buildings, markets and open spaces that could be shared (soldiers and puri followers) and made use of the *catuspatha* space for religious activities. The development of the *catuspatha* in this phase is in line with the *premodern* phase of the development of public space by Haussmann.

B. Tipologi II

The classification of urban design developments in Denpasar according to typology II is based on the following characteristics, namely changes in social structure, efficiency, a desire to improve the quality of the area and regional transportation infrastructure networks, modern, sophisticated, machine-based, and the need for mass production. Based on these characteristics, the development of urban design in Denpasar City according to typology II has started since the colonial era (after the Puputan Badung war ended and the Dutch occupied the central area of the Badung Kingdom). After the King of Badung lost in the Puputan Badung War on 20 September 1906, the Badung Kingdom collapsed and the Puri Denpasar which was in the northeast of the *catuspatha* and the area of *puri* in the Southeast were destroyed (Agung, 1989). The Dutch government controlled the central region of the kingdom (*catuspatha*), there were changes in functions and buildings around the *catuspatha* in accordance with the interests of the Dutch government resulting in changes in the design of the city around the *catuspatha* of Denpasar.

Figure. 5. The condition of Puri Denpasar after the Puputan War Source: Leiden University Libraries: Digital Collections (Leiden, 2016)

The spatial structure of Denpasar City in this phase changes. Puri Denpasar, which is located in the northeast of the *catuspatha*, was rebuilt by the Dutch government and functioned as a resident assistant office complex. The open space in the Southeast during the kingdom era, which was still the area of *puri*, was rebuilt into a square. The market which was located in the southwestern era was destroyed by fire and was moved to the west (not in the city center). As a replacement in this area, a controller office was built as an official office under the resident assistant. The *wantilan* building, which was located in the northwestern part of the *catuspatha* during the kingdom era, is now being replaced by a guesthouse or inn. The *catuspatha* center, which used to be an empty space where the activities of the royal community was centered, due to Dutch intervention, now added aesthetic elements as a sign of orientation. In this phase, a large clock clock in the middle of the *catuspatha* is built.

The changes in the urban spatial structure due to the Dutch intervention also resulted in changes in the function and form of urban elements. The existence of an aesthetic element in the form of a clock bell built at the center of the *catuspatha* resulted in the transfer of social and religious activities of the community to the square. The four roads that form the *catuspatha* are prioritized for the circulation of vehicle movements, no longer concerned with religious activities and other community activities.

Figure. 6. *The clock bell at the center of catuspatha* of Denpasar Source: https://www.facebook.com/SejarahBali/

Figure. 7. Bali Hotel which replaced *wantilan* of the kingdom era Source: Documentation film (Chaplin, 1932)

The market as the center of people's buying and selling activities, which during the kingdom era was located in the Southwest, had been moved, so that the city center was not too dense with human activity. Badoeng Market, which is a forum for community buying and selling activities, was moved to nearby Tukad Badoeng (can be seen in **Figure 8.**)

Figure. 8. Map of Denpasar City during the colonial era
Source: Leiden University Libraries: Digital Collections (Leiden, 2016)

Another change that occurred was the socio-cultural change, where this change started from 1914 to 1941. It is marked by the construction of school buildings to get skilled workers, such as HIS and Tweede Indishe School, as well as Taman Siswa which is an indigenous school. In terms of culture, with the entry of the Dutch there was a cultural acculturation which was marked by the emergence of churches, construction and repair of roads as transportation infrastructure, irrigation channels, office buildings, prisons and recreational areas such as the Bali Museum and Le Mayeur Museum in Sanur, as well as accommodation facilities such as hotels. The various changes that were created by the Dutch with the aim of improving the quality and growth of the area in accordance with the interests of the Dutch Government at that time resulted in a shift in the meaning and value contained in the *catuspatha* of Denpasar. The development of the *catuspatha* in this phase is in line with the modern phase of the development of public space by Haussmann.

C. Tipologi III

The next development of urban design in Bali, especially in Denpasar City, is the development that occurred during the republican era. At this time the political field was no longer controlled by the Dutch but by the Indonesian Government. The classification of urban design in Denpasar into typology III is based on the existence of continuity between form and history (continuity), where there is a merger between the elements that already exist-ed and those of the present by studying the genius loci that once existed in a city.

Combining these elements then becomes a new design. Along with the times, the development of urban design in Denpasar is again experiencing changes. Development is increasingly rapid, the physical condition of Denpasar City continues to grow, and the progress of community life which has shown the characteristics and characteristics of urban communities is increasingly visible. With the change in the power system, the increasing number and density of the population, the pattern of community activity which shows the pattern of urban community activity, the development of transportation facilities and infrastructure, results in changes or developments in the *catuspatha* pattern.

In terms of urban spatial structure, government buildings began in the building by taking a position in the Civic Center. This is almost similar to the concept of the *catuspatha* of the ancient kingdom where the *catuspatha* was the center of the kingdom. In this typology, *catuspatha* is the center of government for Denpasar City. This is based on the efficiency aspect where the city government center is located in the city center so that the community and the government as public servants can work well together. *Catuspatha* cannot be returned to like in the days of the kingdom because at this time *catuspatha* is more prioritized as a channel of movement that accommodates millions of engine-based vehicles. Today's city dwellers in Denpasar view cars and other machine-based vehicles as a necessity, not a necessity. This means that the population of Denpasar City has not been automobile dependence. The effect is the development of the *catuspatha* dimension to ensure the smooth circulation of the vehicles it contains. However, although the *catuspatha* function is currently dominant as a channel for vehicle movement, at certain times the activities of the urban community are returned to the *catuspatha* as the city center. For example, the Denpasar Festival which is held at the end of the year which attracts city residents to do activities in the city center (*catuspatha*), as well as other cultural activities such as Tawur Agung and the ogoh-ogoh parade to welcome the Saka New Year which makes city residents take advantage of the city center again as the center of urban activities.

Information :
A : Residential (Jayasabha)
B : Residential (Hotel Inna Bali)
C : Commercial
D : Office (Bank Mandiri)
E : Park
F : Government Office (Walikota Office)
G : Office (Bank BRI)
H : Government Office (KODAM Udayana)
I : City Square
J : Worship (Gereja)
K : Worship (Pura)
L : Education (SMP 1 Denpasar)
M : Recreation (Museum Bali)
N : Office (Garuda Indonesia)
O : Residential (Kodam Official Residence)
P : Office (Pertamina)

Figure. 10. Currently situation of the building functions around the catuspatha

From **Figure 10**. It can be seen that the existence of building functions that exist in the *catuspatha* at this time has been able to replace the existence of the *catuspatha* of the royal era. The royal center has been replaced by the official residence of the Governor (Jayasabha), the open space has been replaced by the function of the square as a city park, the market has now been replaced by a government office, and wantilan has been replaced by a park. There is continuity (continuity) between the former functions that have existed with the functions needed today so that the *catuspatha* city spatial structure is created as it is today.

Figure. 11. Pasar Kumbasari Tahun 1986
Source: https://www.facebook.com/

In the term of form, the *catuspatha* pattern as a barometer of urban design development in the city of Denpasar is also experiencing developments in accordance with the characteristics of Typology III. This is marked by the change in the aesthetic element at the center of the *catuspatha*, by presenting elements of a genius loci that is more Balinese cultured. The replacement of the clock bell, which is a legacy of the Dutch Government with the Catur Muka Statue by I Gusti Nyoman Lempad in 1972, can give a sign that the development of the design of the city of Denpasar has entered the Typology III phase. The Catur Muka statue as a landmark of Denpasar City is a representation of Lord Brahma. The four faces it has also have its own character representation. The face facing the East, called Shanghyang Iswara, represents a wise attitude. The face of Sanghyang Brahma, which faces south, is a representation of the guardian of peace. Meanwhile, Sanghyang Mahadeva which faces West or known as pascima is a form of the gift of compassion. Finally, Sanghyang Wisnu, whose face is facing north, is a representation of the power that has the ability to purify the human soul.

Figure. 12. Above: The Catur Muka of the 1980s. Below: 2012 Source: https://www.facebook.com/SejarahBali/

The statue, which is believed to have philosophical values closely related to leadership, uses several palm trees as a guide in its design and construction. These are the lontars of Widdhi Sastra, Shiva Gama, Gedong Wesi, Garuda Carita, Ramayana, Usana Bali, Babad Bali, Shiva Sesana, Brahma Tatwa, Niti Sastra, and Kerta Tatwa. In 2012, the base of the statue was completed with red bricks (typical Denpasar style, bebadungan). The base of the red stone has replaced the details of the previous carving and basic decoration, namely the fragments of the Lubdaka story which were picked from the Siwalatri story. The decoration of colorful fountains is added as an aesthetic element, making the existence of the Catur Muka Statue as a landmark of Denpasar City to become a special attraction for the city community. The town square is now the center of urban community activity, equipped with facilities needed by the city community today such as a rest area, a game area, a stage, a gazebo, and so on. Religious events such as the Tawur Agung center on the square. Other events that are often held at this square include cultural performances, music concerts, exhibitions and political events.

From the description above, it can be concluded that in terms of spatial structure, function, and shape of the catuspaths in this phase are in accordance with Vidler's Typology III theory. In general, the structure, function, and form of the catuspaths in this phase are a continuation between the elements from the past and the current elements by bringing back the elements of genius loci based on Balinese culture so that it becomes a new order or design.

Figure. 13. Various elements of Denpasar City Square

IV. Conclusion

The development of urban design in Bali, especially in the city of Denpasar, can be seen from the development of artifacts (building mass configuration) around the *catuspatha* (the intersection of four city centers).

The development of urban design in Denpasar is in accordance with the developing typological theory. The first typology that is rational and uses natural philosophy is characterized by the use of concepts and decorations with natural philosophies (animals and plants) in buildings. The second typology was marked by a change in the social structure in Denpasar after the Puputan Badung War, resulting in the Dutch controlling the *catuspatha* area, and changes in the *catuspatha* (including changes in terms of structure, function and shape of the *catuspatha*). The third typology is characterized by bringing back aesthetic elements to the *catuspatha* that are in line with Balinese culture.

The development and changes in urban design in Denpasar, especially the *catuspatha*, have a positive impact as well as a negative impact. Positive impacts include the existence of a Chess Muka Statue in the middle of the catuspaths which can improve the aesthetic quality of the city and give an image to a city that is more culturally minded. The existence of an aesthetic element at the center of the *catuspatha* in the form of decorative ponds and statues can facilitate the movement of vehicle circulation. Meanwhile, the negative impacts include the sacred value of the *catuspatha* concept which is fading due to a shift in the function of the *catuspatha* and the function of the building around the *catuspatha* at this time. Apart from this, the *catuspatha* center is now unable to function properly, because the *catuspatha* center which should be used as a centralized space for urban residents' activities is now more prioritized as a vehicle for vehicle movement.

References

Agung, A. A. (1989). *Bali abad XIX, Perjuangan Rakyat dan Raja-Raja Menentang Kolonialisma Belanda 1808-1908.* Denpasar: Gajah Mada Univ. Press.

Attoe, W. (1978). *Architecture and Critical Imagination.* New York: John Wiley & Sons Inc.

Chaplin, C. (Director). (1932). *Chaplin in Bali* [Motion Picture]. US.

Donder, I. K. (2001). *Panca Dathu: Atom, Atma, dan Animisme.* Surabaya: Paramita.

Gelebet, I. N. (1982). *Arsitektur Tradisional Daerah Bali.* Denpasar: Departemen Pendidikan dan Kebudayaan Proyek Inventarisasi dan Dokumentasi Kebudayaan Daerah.

Leiden, U. (2016). *Leiden University Libraries: Digital Collections.* Retrieved March 28, 2021, from https://digitalcollections.universiteitleiden.nl/

Putra, I. G. (2003). Perubahan Ekspresi Konsep Natah dalam Tata Ruang di Bali. *Jurnal Permukiman Natah, 1*(2), 52-58.

Putra, I. G. (2005). Catuspatha: Konsep, Transformasi, dan Perubahan. *Jurnal Permukiman Natah, 3*(2), 62-71.