Inner Space in the City:
Jose Luis Sert, Fumihiko Maki and Kyu Seung Woo's Search for Inner Space

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Abstract

Architects Jose Luis Sert, Fumihiko Maki, and Kyu Seung Woo have more in common than that they came from the high-density cities of Barcelona, Tokyo, and Seoul, respectively. They were all involved in the Harvard Urban Design program: Sert as a teacher (1953~1969), Maki as a student (1953~1954), and Woo as a student (1967~1970) and as an architectural designer in Sert's office (1971~1974). Their works and thoughts emphasize the enhancement of public space that is congenial to the existing urban structure. The problem they faced was the debacle of master planning practice, and the solution they offered was an alternative design solution to the existing gridiron pattern of cities. This paper will posit "inner public space" as an alternative to the failure of Corbusian master planning practice. The term "inner space" derives from Maki's notion of deep space in traditional Japanese towns. According to him, an inner space does not show up obviously as a space with ample light, and is less visible than a central space. Rather than the unpopular center of town, the most visited entrance or deepest place could be an inner space that fosters a historical and symbolic narrative of a town. The location of inner space in a town could be unrecognizable from a geographical map, but show up in the minds of people, or through talks with people in town. Sert, Maki, and Woo pursued inner space in different ways, according to the site situation. Well-designed inner space sustains site use, and adds historical and symbolic narratives through generating culturally appropriate activities to a natural place. The best work of each architect, *44 Brattle Street Building* by Sert in Cambridge, *Hillside Terrace* by Maki in Tokyo, and *Olympic Town* by Woo in Seoul, attest to the cultural sustainability made possible by the performance of inner space.

Keywords: Jose Luis Sert; Fumihiko Maki; Kyu Seung Woo; inner space; inner space envelopment; inwardness

1. Introduction

This research suggests an alternative to central space through emphasizing the unnoticed role of inner space in the city. However, inner space is not an interior space, but an open space that can be approached via one or two paths. In urban design practice, the role of central space is too much laden with the success of the area or district, and yet the importance of inner space has been marginalized and often regarded as irrational and isolated space. Because of this issue, the research of inner space has not been prevalent. And yet from this research of late modern period architects and urban designers, the notion of inner space becomes obvious. This research reveals an insightful aspect of the unknown side of the success of the Harvard Urban Design Program. Sert as an initiator of this program promulgated the notion of the "Heart of the city", and at the same time informed his pupils such as Maki and Woo of the importance of the aboriginal town and its inner space. Based on this fact, this research suggests a hypothesis that the activation of inner space in the city will bring forth operative urban spaces.

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(Received April 15, 2012 ; accepted February 13, 2015)

2. Sert's "Walled-In" Place in Boston

Sert's notion of inner space was shaped through the observation of Barcelona's typical courtyard space, as well as his observation of naturally shaped villages in the Mediterranean region.[1] After coming to America, Jose Luis Sert diagnosed that land use in America is not efficient in forgoing the front yard as a buffer zone from the street. In fact, colonial American hometowns did not utilize the land in an efficient manner. Sert introduced the compact use of land in Europe to America, and emulated such cases of Barcelona in Cambridge, MA. Regarding the use of space in the city, Sert focused on three territories, courtyard, pedestrian road, and compact use of private land. He attested to

these topics with his house design in Cambridge and public space reconfiguration on the Harvard Campus:

> These community patios vary in size depending on the number of people they serve…. And they are always "walled in" by surrounding blocks of patio houses. Result: people…tend to associate with others more freely than they would in an "unframed" park area.[2]

This type of comparison is initiated from Sert's experience of differences in Barcelona and Cambridge. After observing less dense use of open spaces in America than in Barcelona, Sert concluded that just as privacy is achieved by walled-in patios in a house, so social contacts among neighborhoods occur readily in "framed" public spaces. This framing means enclosing open spaces with buildings and houses in the periphery of open spaces. To him, the typical American single house with its unenclosed front yard was regarded as loose land use, which promotes neither publicity among neighborhoods nor privacy within a family. In order to suggest an alternative to this ill-defined residential area, Sert designed walled-in open spaces with appropriate enclosures for residential projects in Latin America and America, with an apology for compact land use.

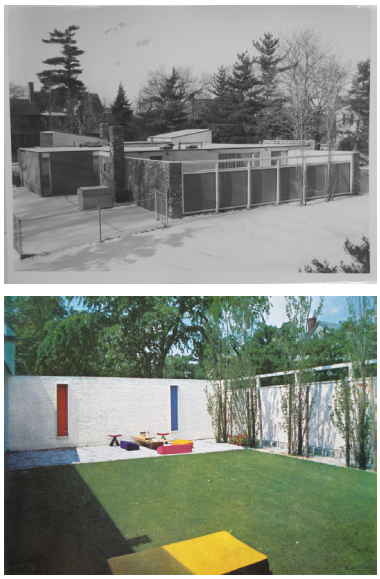


Fig.1. *Sert House* in Cambridge, Jose Luis Sert, 1951

As a testament, Sert constructed a rather unusual walled-in patio at his new house in Cambridge in the vicinity of Harvard University (Fig.1.). This house has two patios at the front and the back. Both patios maximize privacy unlike other houses in the neighborhood, and yet block views from the street. The *Sert House* intended to operate as a beginning place for the creation of a walled-in residential street in the corner lot of a residential area. However, it stands alone without the repetition of neighborhood houses. Its intention to maximize inner space envelopment through walled-in patios replaced the representational facade with a non-representational one as follows:

> As the house looks to the inside instead of looking out, it need not have an outside expression or facade. These facades can be replaced by anonymous looking fences. Behind them, once you enter the house, you can be in a different world – the world that each family can build for itself. The fronts, or facades, have disappeared behind garden walls and fences.[3]

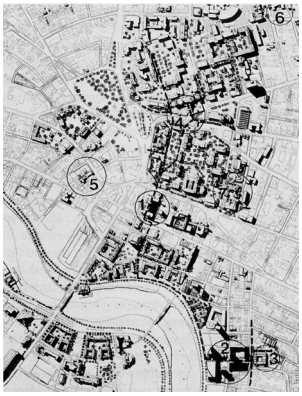


Fig.2. Harvard University Pedestrian and Courtyard Plan, Jose Luis Sert, 1957

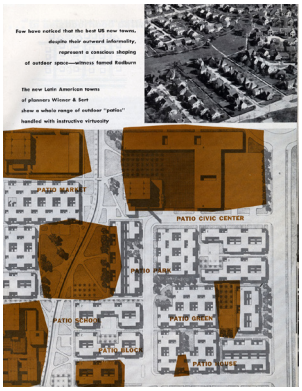


Fig.3. *Can Patios Make A City?* Jose Luis Sert & Paul Lester Wiener

This remark emphasizes the use of spaces in the lot, while forgoing the expression of facades. The fences that demarcate the boundary of inner space in houses and streets are framing tools that secure the division of public space and private space. Street design was intended through providing an appropriate framing device for the house.

This type of urban design approach was legitimized by Sert's role as the master planner of public spaces with courtyards and pedestrian passages on the Harvard University campus in 1957 (Fig.2.). Sert connected existing courtyards with pedestrian passages, on the assumption that the surrounding buildings would provide them with urban enclosure. The most important courtyard was Harvard Yard that is in the center of the campus. Around Harvard Yard, in the distance Sert's two buildings, the *Science Center* and the *Holyoke Center* operate as enclosing frames for the courtyard. The *Science Center* works as a frame that encloses the north side, and the *Holyoke Center* not only encloses the south side, but also connects the campus to a dormitory outside the campus. While the *Sert House* did not succeed in the creation of inner space along the street, with continuous effort to implement public space in the city, Sert's scheme of courtyard and pedestrian connection was successful in reconfiguring the Harvard University pedestrian network.

The complete renewal of a couple of blocks and new building design were implemented in the Peabody

Terrace, which was incorporated into the larger pedestrian route plan of Harvard University. As a family housing for students, the Peabody Terrace was located at the end of a pedestrian route plan with 3 courtyards. Since this family housing aimed to create a kind of social gathering in open spaces, pedestrian passages and courtyards were operative in the shaping of community.

While all the above buildings focused on the courtyard, the positive case of inner space was seeded in the *44 Brattle Street Building*, which housed Sert, Hugh and Jackson Associates in the 1970s.[4] The inner space was shaped according to the existing use pattern and the need for an entrance to the back of the building. Before Sert's building was designed, the courtyard was used as an entrance backyard for other buildings. Sert transformed the passage and backyard into a courtyard for three buildings and a long passage that intersect the block. The character of the courtyard is semi-public since it works as an entrance yard for two buildings, and yet is public since anyone can take a rest while passing through the passage. In other words, this courtyard is not easily visible from the street, and works as an inner space in the block that disseminates passages that interconnect the block.



Fig.4. Open Entrance between the *44 Brattle Street Building* and the *Design Research Building*

In sum, Sert did not create hierarchical central space for the city, but devised a network of courtyards and pedestrian passages. In doing so, he maintained 'human scale' in enclosing courtyards with buildings. The concept of inner space that he attempted to create with "walled-in" spaces was not successful in most cases. The *Sert House* did not bring up the repetition of neighborhood houses. The courtyards of the *Peabody Terrace* did not operate in everyday activities; yet on special occasions like community gatherings, its scale and size works with high attendance. However, in the *44 Brattle Street Building*, a suggestive inner space was implemented by transforming a rather hidden backyard into a courtyard that is connected to multiple pedestrian passages. It is a calm space that is "walled-in" by three buildings and yet operates as an umbilical cord that connects buildings in a block. Sert's inner space in a modern city is enclosed by different buildings and activates their participation in the creation of a hidden but working urban space.

3. Maki's Inner Space Envelopment in Tokyo

Fumihiko Maki was born and raised in Tokyo and suffered the destruction of the city in the 2nd World War. While in Tokyo, he experienced modern architecture in the rebuilding period of Japan, and yet came to know the importance of climate through the reading of *Fudo* written by philosopher Tetsuro Watsuji. Around 1959, he came to observe inner space through trips to the Mediterranean area. He learned that architecture responds to climate in order to facilitate the gathering of people in public spaces.[5] In doing so, central space was often exposed to the climate, while inner space was much more enclosed by shading of the natural and manmade environment.

Maki attended the Harvard School of Design from 1953 to 1954 when Jose Luis Sert began an academic position as Dean of the School in 1953. Maki was one of the students in Sert's urban design studio, and learned from Sert's approach to urban design issues. Maki is famous for his notion of 'collective form', which was incorporated as one of the Metabolists's theories in 1960. He developed this idea through a trip to aboriginal towns in the Middle East Mediterranean area. After he returned to Japan, his observation of Japanese cities developed into an article named, "Japanese City Spaces and the Concept of Oku (奥)," which addresses the hidden rule of inner space envelopment in the shaping of the Japanese city. Maki proposed the concept of *oku* (innermost area) as the core of a high-density space organized into multiple layers, like an onion. Maki understands *oku* as a key concept in Japanese city shaping, in comparison to Western city design. For example, *okusei*, inwardness, has been basic to space formation in Japan. Okuyuki, i.e. depth, signifies relative distance, or the sense of distance within a given space. Oku also has a number of abstract connotations, including profundity and unfathomability, so that the word is used to describe not only physical, but also psychological depth.[6]

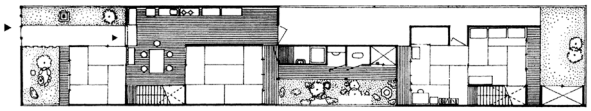


Fig.5. Plan of a Kyoto Machiya (Townhouse), Fumihiko Maki: Entering from the Street (to the Left), One Passes in a Linear Fashion from the Most Public to the Most Private Rooms of the House, which are Set Deep into the City Block

Maki compared Japanese deep-layered space to the Western concept of plaza and public space. Both perform as a space for gathering or community, and yet he emphasized different motives of urban formation. He regards the courtyard formation of China as not being different from that of Western cities. They give importance to the high point and the center in urban structures; a high point in a given topography is utilized as an emblematic space, and the center is used as public space. Unlike the Western tradition, Japan

has a trait of using valleys and flat land hidden between the mountains to shape a town. Many agricultural towns in Japan are shaped for an easy approach from the outside and along a creek near the valley. Often the shrine or a place for worshipping ancestors is located along the valley line at a rather higher location than the town, and operated as an innermost area that is hard to approach from outside of the town. This deep structure creates a form of 'delayed space' in the approach and perception of the town.

While Chinese architecture influenced Japanese and Korean architecture, the topographical difference and traditional cultural value make their settlement shaping different. In particular, Japanese and Korean town design follows topography and weather more than the emphasis on trade in China. The Chinese traditional urban design Wang-chung (王城) plan follows a defensive system of castle and walls in a grid system of roads. In China, traditional towns around a river, where large and vast rice paddies are shaped, also followed a grid pattern that is similar to the Wang-chung plan. On this point, Maki argues that Chinese architectural use of walls and central space making is not different from that of Western architecture. He points out that when the pagoda was introduced into Japan, the height was reduced in response to the site situation and context.

Maki was opposed to this type of Western space making method that gives importance to the center and its peripheral walls, naming it 'center demarcation.' In this model of thought, space is assumed to be immense, and one's territory is to be defended against outer forces. Whether of the Mediaeval, Renaissance, or Modern period, Western cities focus on the center of the city, and the boundary that demarcates the city. It is certain that the postwar trends of the 50s also focus on the center of the city, which was proposed by Sert as "the heart of the city" at the CIAM 8th meeting at Hoddesson, England in 1951. Sert wanted to rejuvenate city centers with the hustle and bustle of people, and assist their activities through total works of art and architecture. It is obviously a therapeutic approach that works as an alternative to master planning practice, and thus not holistic enough to respond to the reality of the urban situation. However, this concern for rejuvenating the urban environment has been the major issue in urban design thereafter.

Against this model, the "inner space envelopment" assumes a finite nature, of land enveloped by site conditions, with roads and topography. A town is bounded by a natural boundary and site condition, and is entered from a main entry point with a welcoming pavilion. As one goes deeply into the town, other structures of open space and houses are found, and the depth of the town is created. It is composed of a continuous flow of open and closed spaces. This type of traditional town is shaped naturally, with a sensitive organizational logic that is hard to analyze by a rational planning method. Wisdom and careful observation of the way the natural and cultural environment sustain this type of town is necessary to elucidate the town's organizational logic.

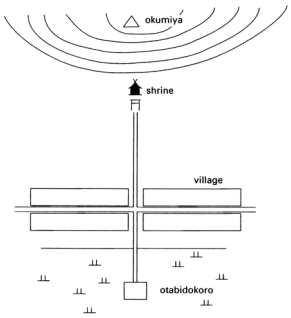


Fig.6. Diagram of an Archetypal Japanese Village, with its "Inner Space" Hidden Deep in the Mountain, Fumihiko Maki

In contemporary Tokyo, where traditional townscape and modern urban design are mixed, it is hard to apply the traditional concept of inner space to the understanding of space. Instead, Maki searches for the space interconnection that can harbor inner space throughout interior spaces and urban spaces. Maki criticizes the current situation as follows,

> "Inner space becomes more and more compartmentalized, being relegated to one portion of an apartment, for instance, and thus ceases to participate in the kind of collective inner space formerly found in the city."

This remark warns us of a compartmentalized urban situation, where space design becomes a separated task that does not consider urban obligation. In many of Maki's descriptions of city, inner space envelopment is implied in an apology for spatial interconnection and visual penetration through spaces. When he described the renovated Museum of Modern Art in New York, he even mentioned that the building is itself a city, where solitary gaze on the works of art and people is possible. Maki regards space interconnection as a prerequisite in the shaping of inner space in modern cities, and by doing so, crosses the boundary between interior spaces and exterior spaces.

3.1 Hillside Terrace

As the most successful case in contemporary Tokyo, Maki designed *Hillside Terrace* to achieve the concept of inner space envelopment throughout buildings and open spaces. This building complex has been much written about by many scholars as an emblem of an ongoing urban project that can motivate its own and nearby building designs. Here, the author will make a point on how the inner space envelopment was applied to this building complex.

Teruyuki Monnai interpreted *Hillside Terrace* through applying Maki's own concept of group form to the explanation of building complex. In regard to the inwardness of a city, Monnai introduced *oku*, which was explained by Maki elsewhere.

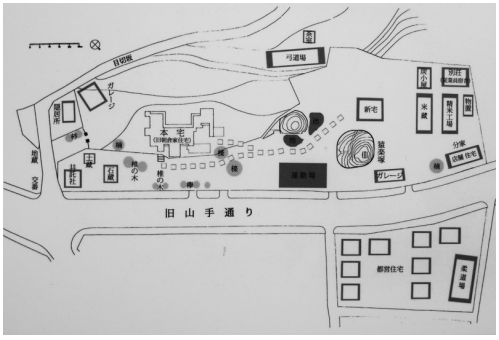


Fig.7. Asakura House in its Original Shape

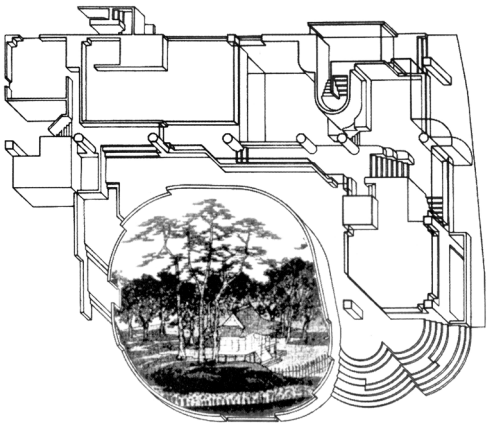


Fig.8. Kofun (古墳), Named as Monkey Playing Tomb (猿樂塚), Hillside Terrace, Fumihiko Maki

> "A major characteristic of Japanese urban space is the way spatial layers overlap to produce a distinct sense of spatial depth, or Oku…Hillside Terrace incorporates a number of spatial layers…Many spatial layers are formed to produce not only oku but also a sense of transparency…These spatial layers are public spaces and encourage diverse forms of activity, such as strolling, meditating and looking at works of art."[7]

Monnai interprets the layers of space as *oku* from street to inner area of the site. This layering of space and architectural elements had been discussed much earlier by Colin Rowe and Robert Slutzky as the concept of "phenomenal transparency." Criticizing a literal transparency that is guaranteed by the modern window-wall, they proposed a form of complex transparency that concatenates window-wall plane and space far beyond, much as cubist paintings do. Monnai's interpretation of *oku* is not much different from Rowe and Slutzky's notion of phenomenal transparency, and is limited to the explanation of building wall plane and space only.

It is notable to explain the whole complex with this concept since it emulates the time and space development of a district in the city. *Hillside Terrace* is a new building complex that emulates the continuous spatial value of Japanese culture. A particular presence in the site is Kyu Asakura House and its garden, which are Important Cultural Properties in Japan, and kofun (古墳), named as Monkey playing tomb (猿樂塚). These are remnants of the Asakura estate, and *Hillside Terrace* was developed in consideration of these important existing places on the site. The main house is in the deepest place in the site, and shows the profiles of roofs only from the site. The monkey playing tomb works as a highest natural point where a shrine is located. Although these places were once places of the Asakura estate, they still function similarly to their old use in *Hillside Terrace*.

Throughout the development, Maki has been cautious concerning the use of the existing site and upcoming situation, much as one designs a town. The shrine is preserved, and works as a natural and symbolic landscape. The *Hillside Terrace* phase two design did not disrupt the approach to the kofun. The phase three design completed this place as the middle of the courtyard. The natural and symbolic mound became a deep place in the courtyard, since the mound landscape accompanied and ascended to it while the low main house needed to descend to the lowest place. Together with the dovetail shaped building masses of phases 2 and 3, the fluctuation of landscape and its historical meaning added the dimension of *oku* in space and time. Spatially, the layering of each plane of the buildings from the street creates multi-directional views from one place to another. From a place, there exists always a near view and a distant view that complement one another to create a depth of spaces. Also, Asakura House and kofun, which are visible and approachable from the site, show the vestige of time and its renewal by becoming a central space in the complex. *Hillside Terrace* is a modern town that emulates the traditional spatial value of the Japanese town.



Fig.9. Kofun (古墳), Named as Monkey Playing Tomb (猿樂塚), Hillside Terrace, Fumihiko Maki

The inner space configuration that reveals the history of a site, like the case of *Hillside Terrace* sheds a new light on the present issue of sustainability. When the topography and activities of people are not separable, and integrated to shape a well-operated site situation, the buildings and their environment sustain their configuration throughout the change of time. The

inner space enveloping *Hillside Terrace* renews and continues the residential culture of the site.

4. Woo's Inward Town in Seoul

Kyu Seung Woo was born and raised in Seoul and lived in a family where his grandmother and uncle's family lived together in a pre-modern area of Seoul. He remembers his town with a welcoming wooden pavilion and a shrine at the back of the town. The pavilion works as a gathering space, while a shrine works as an inner space. This memory persists in his practices in the United States and Korea, and works as a momentum in the creation of a warm inwardness of the architectural environment.

In 1969, Kyu Seung Woo attended the Urban Design Program at Harvard University. Jose Luis Sert finished his position as Dean of the School in the same year; however, Woo worked for Sert and Jackson Associates from 1970 to 1974 at their office in the *44 Brattle Street Building*. It is not certain whether he followed Sert's design approach or not, and yet many of Woo's works have common features with Sert's works. Sert's proposition of human scale is well maintained in Woo's works; and the design of variegated façade elements can be found in both. Furthermore, the project types that Sert designed, such as private residence, gallery, school building, university housing, and housing complex, are similar to Woo's types of commission. As architects from foreign countries, their commissions came from design competitions and institutions, rather than from private businesses. This fact illustrates that their works are much more pure and suggestive than the other commissions that are more subject to the interests of the client.

Due to these reasons, Sert's and Woo's works share common features. Among many features, this paper focuses on the shaping of urban space that has the characteristic of inward public space. Sert proposed walled-in space, and yet it is not a compartmentalized space, but a communicative space that can provide people with a momentary retreat from the hustle and bustle of traffic. As well, walled-in space connects separated buildings and passages through a common courtyard. Sert's approach was practical and anthropological, since he garnered many features from his observation of historical European settings. Sert overcomes the problem of the existing city, which Maki criticized as "center demarcation", through an interstitial network of courtyards and pedestrian passages. His urban design scheme and design works have the meaning of enhancing the existing city with suggestive design features. Woo began his practice in Boston, and faced a similar situation to Sert in having to work with existing cities. However, his work in Seoul was relatively large scale, and provided him with the chance to make a new urban structure, thus inputting the concept of inwardness in the city, which he learned from Sert and from agricultural villages in Korea.

4.1 Urban Courtyard, Roosevelt Island Housing Competition

In 1975, New York State Urban Development Corporation conducted a competition for the 2nd phase of housing at Roosevelt Island. In 1970, Sert had previously designed two housing complexes on this island that emulated the spatial quality and community system of *Peabody Terrace*. Sert's use of Skip-Stop floor (elevator stops at every 3rd floor) was reintroduced to create an intimate social structure of residents. Eastwood Residential Complex has all the elements Sert pursued in urban housing: 1) social mix of young and old, singles and families, 2) courtyard enclosed by building mass, 3) ground floor concourse that can foster community activities, 4) composition of low and high building mass, 5) human scaled mass with stepped terrace roof, and 6) façade variation with functional windows for house and corridor.

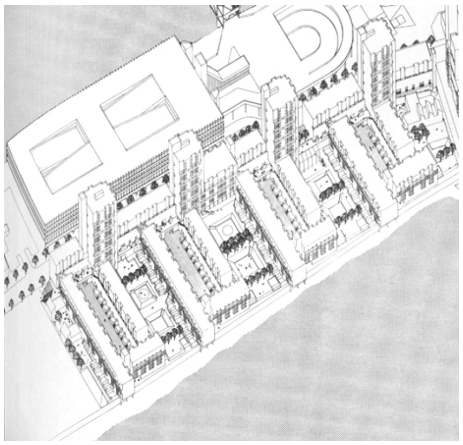


Fig.10. Roosevelt Island Housing Competition, 1975
Kyu Seung Woo

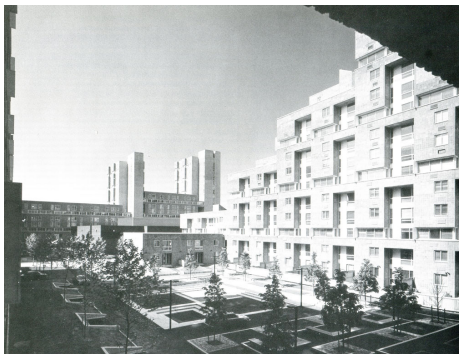


Fig.11. Riverview Residential Complex, 1970 Jose Luis Sert

Kyu Seung Woo's proposal was the winning scheme of the competition. Joan Ockman commented that the winning scheme followed "Sertian" solutions. In fact, Sert served as the chair of the jury. Woo's winning scheme is not so much different from Sert's approach, which focused on social mix and pedestrian interaction at ground level. The composition of low and tall masses creates human scale, with an emphasis on activities at the street level. While tall towers operate as visual objects in the distance, low masses perform as a close

backdrop of community activities. The main concept was movement and community pedestrian path, which creates social space in the town. This concept appears to have been taken from *Peabody Terrace*. Courtyards are open and closed according to one's movement through open spaces, and meanwhile the depth of space creates an expectation of different events of everyday life.

Both Sert's two housing complexes and the unbuilt scheme of Woo illustrate a compact use of land, building low and high masses around a courtyard, with variegated façade elements. In both, Sert's concept of walled-in patios for the courtyard can be applied to the multi-housing complex.

4.2 Modern Emulation of Korean Old Town, *Olympic Town*, Seoul

Woo won the international competition of the 1988 Seoul Olympic Town with his design of a multi-housing complex for athletes. While Woo's U.S. works have limited sites in an existing city, the site of Olympic Town was almost like a *tabla rasa*, and yet lay between the border of city and nature. The project was for a superblock to accommodate more than 5,000 housing units, on a site that faces a mountain to the east and Olympic Park to the north, which has a couple of creeks. Matching the shape of the site, the phenomenal feature of the town is the pan-like radial layout of buildings. Building masses are concentrically located toward its center as a community facility. This J-shaped community building faces Olympic Park to the north, and is visible from any point of the site. In an interview with the Dong-A Daily newspaper, Woo mentioned that:

> "The main characteristic of the radial layout of Olympic Town is to represent the traditional Korean town structure that has an orientation toward innermost depth of spaces. This spatial orientation is culminated and provided as a place for the gathering of all athletes in town during the Olympic Games."

Woo mentioned two subjects, the innermost depth of spaces and traditional Korean town structure. This mention is quite similar to Maki's proposal of *oku*, which he learned from traditional Japanese town structure. Much as Maki described the structure of the Japanese town, the traditional Korean town has a similar structure of inner space envelopment. In the deep place of a town, a shrine or worshiping place is located, and at the entrance of a town, a pavilion for gathering and welcoming is usually located. From the entrance, several paths to houses in town branch out, and shape a deep space structure at the farthest end of the road, which is analogous to Woo's radial plan of the town. He wrote,

> "Traditional Korean towns and cities have been created along rivers and creeks with mountains at the back of the settlement. Following the skirt of the mountain slope, the town is shaped as radial plan with its core as a pavilion near the entrance of the town."

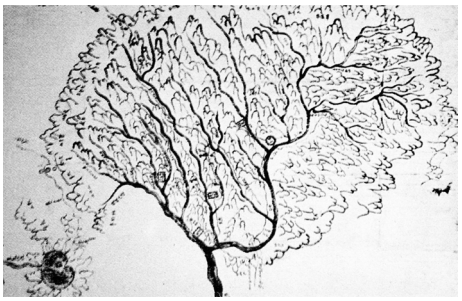


Fig.12. Korean Traditional Town Structure

In a sense, there exists a difference between Maki's focus on the innermost area of a town, and Woo's innermost depth of a site. While Maki proposed a calm and reserved space as the core of inner space envelopment, Woo utilized the pedestrian entry of *Olympic Town* as the innermost area of the town, which has community facilities such as retail stores and so on. Athletes commuting by foot through Olympic Park pass by the community building. Now, after the Olympic Games, residents use cars from the outskirts of the town, and the community building became the deepest area of the site, still functioning as a retail area for the town. It is much more like Jane Jacobs' proposal of a corner store in the town. In order to make a focus on the community building, Woo designed the residential block with stepped masses that become lower toward the center. At the outskirt, its height is 24 floors, and at the center, it is 6 floors only. Together with its radial plan, the height variation creates a focus on the center and vice versa expansion of view toward the outside of the site. The elevation of residential



Fig.13. Olymic Town, 1988 Kyu Seung Woo



Fig.14. Olympic Town Elevation



Fig.15. Community Building of Olympic Town



Fig.16. Plan of Olympic Town

buildings has variation much like *Peabody Terrace*. Windows that match the unit plan create a variation of elevation in the overall building.

5. Conclusion

Inner space is generated from the aboriginal village and East Asian town settlement, and can be applied to contemporary cities in the different manners that Sert, Maki, and Woo implemented in existing cities. Central space is mostly located at the center of a town and district and is enclosed by buildings, and operates as a public space for political activity, gathering, and taking a stroll, especially in Western towns and new cities worldwide. On the contrary, inner space does not need to be at the center; it could be in a deep place of a town or on the periphery of a town. It is a symbolic place, or solitary space in the city. It has a narrative, whether historical or contemporary. Most importantly, to design an inner space in a modern city involves the interpretation of the traditional value of settlement in a given culture.

Sert proposed "walled-in" space, which is a renewed Mediterranean patio space, for the urban culture of Cambridge, in order to enliven the pedestrian culture. Through configuring a network of pedestrian passages and courtyards, Sert emulated the spectrum of privacy and publicity in a modern city. Sert's walled-in spaces perform differently according to the sizes and locations of the courtyards. Maki and Woo were educated under the guidance of Sert, and yet their practices in their home countries of Japan and Korea respectively, are unique in their design of inner space. Maki proposed "inner space envelopment", which assumes an onion-like space structure of a town that prefers deep and symbolic space envelopment with buildings. Woo proposed "inwardness" in a city, which emulated the traditional Korean town structure where the entry pavilion performed as a place for welcoming and gathering.

Consequently, Sert's position remained Western in manner, and yet provided quite an operative center space as the heart of the city. In his practice, it was most effective in the small house patio, which is similar to the courtyard of a multi-family housing building in his hometown of Barcelona. Though designed to be a public space, a rather big courtyard did not always remain that active. A constant update of the use program that encloses the courtyard was quite influential in the success and failure of the courtyard. Maki has been respectful to the site situation, both topographically and historically. He has continued to design the symbolic value of a town in the modern city, and thus his spaces and buildings sustain each other. His concept of "inner space envelopment" overcomes the limit of Western central courtyard space. Woo made a new history in the design of the multi-housing complex through a radial plan and the creation of "inwardness" toward community space. It is a renewed version of the traditional Korean town in a modern city. Maki and Woo work against rationalized ideology, and instead create alternatives to it through proposing "inwardness" and "inner space envelopment", which could be effective for the creation of viable communities.

A conclusion and extrapolation that could be drawn from this research would be the creation of both public and intimate urban spaces that can generate "saturated phenomena"[8] for the public. Saturated phenomena are not a haphazard happening, but a veritable activity that occurs in a community. It could be either symbolic or historical. While "central space" sustains undecided, haphazard and yet probable events, "inner space" does not often allow unexpected events, and yet sustains the saturation of historical and symbolic events that can continue in a community. While "central space" often entails so-called agoraphobia that makes one's mind lost in the midst of the public, "inner space" does not entail phobia, and yet awaits the upbringing of shared moments in a contemporary city.

Notes

1. G.A.T.E.P.A.C (Grup d'Arquitectes I Tecnics Catalans per al Progres de l'Arquitectura Contemporania) was formed in Barcelona in 1931, together with Sert's colleagues.
2. Jose Luis Sert, "Can Patios Make Cities?" *Architectural Forum*. 1953 Aug., v. 99, p.127.
3. Jose Luis Sert, "The Rebirth of the Patio," *José Luis Sert, Architecture, City Planning, Urban Design*. ed. Knud Bastlund, Zurich: Les Editions d'Architecture, 1967. p.135.
4. See author's paper, Hayub Song, "Jose Luis Sert's Naturalization of Architecture in the City" Journal of Asian Architecture and Engineering, Vol. 9 (2010) No. 2, pp.275-282.
5. Fumihiko Maki, *Nurturing Dreams*, MIT Press, 2008. p.26.
6. Oku-dokoro (inner place), oku-guchi (inner-entrance), oku-sha (inner shrine), oku-yama (mountain recesses), oku-zashiki (inner room), oku-gi (secret or hidden principles), oku-den (secret mysteries of art) Fumihiko Maki, *Nurturing Dreams*, MIT Press, 2008.
7. Teruyuki Monnai, "Search for an Architectural Language of Group Form" *Fumihiko Maki*, Maki Fumihiko, D avid Stewart, Mark Mulligan, Kenneth Frampton, Phaidon Press, 2009. p.183.
8. Jean-Luc Marion, *In Excess: Studies of Saturated Phenomena*, Fordham University Press, 2002. [De surcroit: études sur les phénomenes saturés, (Paris: Presses Universitaires de France, 2001)].