

# Beyond Building Envelop: Urban Form of Cultural Public Space

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**Abstract:** Cultural buildings are the key-pieces that gives character to urban form, yet it is more often perceived as the iconic landmark, an isolated object that is devoid of context. The significance of cultural buildings should be more than its visual impact, but to play a greater part in the making of urban form. This paper explores the role of cultural buildings in the city beyond the nominal aesthetic or functional view. The architecture is then read as the container of social space, contributing to the public realm at a spatial and experiential dimension. Grounded in the approach of Nolli map and figure-ground drawings, cases of contemporary cultural buildings are examined in plan through multiple scale from building to site and districts, to review how they respond to the urban context. The review of two international cases of cultural architecture sets the tone of this approach, followed by a detail analysis of the recently complete theatre at the West Kowloon Cultural District in Hong Kong. The result of this study presents a renewed perspective on cultural buildings in the city, and their contribution to the creation of public space and urban form.

## 1. Introduction

The new cultural architecture in a city are always at the center of attention, and these theaters or museums are playing an important role in the making of the city. In a formal sense they are often the landmark that marks the city's skyline or represented as urban icon, in the same time they are also frequently regarded as key urban strategies in revitalization or new district development. Literature on urban morphology has different terms to describe these special element, from the "set-piece" in *Collage City* to the "monument" in *Architecture of the City*, which all pointed at same special quality of this type of public building that stands out in the urban fabric. While in ancient time the churches (and its plaza) are the center of urban public life, nowadays the cultural institutions would take a similar position where people gather and where public culture is formed. Especially in the current context of neoliberal society, the public role of cultural buildings (and the institution it represents) are ever more important to balance the sometimes manipulated public realm occurring under market influence.

Furthermore, the cultural building has become *the* strategic move in urban development over the past decades. Since the post-war period the cultural building was utilized to rebuild civil life, such as the case the Centre Pompidou in the 1960s, to the post-industrial urban regeneration schemes through cultural development, with the prime case of the Guggenheim Bilbao in the late 1990s. The more recent cultural landmark of the Elbphilharmonie in Hafencity, Hamburg, is another keystone urban project in spite of its continuing criticism in multiple fronts. The cultural building has become the remedy to urban issues and the trophy of successful urban development, with the effort and resources input comparable to that of the ancient cathedral-building. These cultural monuments are the churches of our time, where it often carries a greater symbolic value than the building itself. However, the question to ask is how does it contribute to the making of the city, whether the architecture itself can affect urban form in a positive way?

As *culture* is one of the “most complicated word” in English language (Williams, 1981), “cultural public space” has an equally wide application that can describe any public space where culture happens. It contains the composite notion of “cultural space” and “public space”, in this study the significance of public space in formation of public life is taken, with association to the venues for arts and cultural activities. This could range from the traditional theaters and museums to the contemporary hybrid cultural centers. The focus is not on the specific artistic discipline and function, but the common space such as the plaza, the lobby or foyer that possess certain public space qualities that are important but often overlooked. While they are similarly used and accessed like other public space, the nature of cultural activities and institutional background distinguish the cultural public space from the open public space (e.g. parks and streets) and the commercial public space (e.g. shopping malls).

This paper would look at the cultural building and its associated public space from a formal perspective, through the two-dimensional urban and architectural plan to examine the role it plays within the urban context. The cultural building as an urban strategy and the iconographic interpretation has been a popular topic of discussion, in this study we would stay away from the discourse on appearance and aesthetic, but in a planar approach to read the public-private relationship that occurs within the building and with the urban surrounding.

## 2. Cultural Space in the Public Space Discourse

The origin of “public space” is often traced back to the Greek definition of *polis*, as a social concept where people gather for certain commonality. Since the Enlightenment, drastic changes in the society were happening as we move into modernity, and the idea of “public” is also being enthusiastically debated and discussed in all disciplines from philosophy to sociology and politics. The notion of “public space” can be interpreted from the conceptual idea and spatial relationship, to the physicality and Cartesian space. In recent decades it is further extended into the in virtual (public) space of the contemporary digital era. As we attempt to map out a brief account of public space discourse to position cultural space within, more relevant are the theories that was developed since the post-war decades in the 20th century, which has affected directly or indirectly the architectural concepts (and design) of contemporary cultural spaces.

While her political theories in labor and action are more famous, Hannah Arendt (1958) has contributed to the public space discourse with the concept of *public realm* that is separated from one’s private domestic life. The public realm holds people together not by nature (family ties) but through the “common” constructed with different positions and perspectives. Here the

notion of public realm is illustrated with the metaphor of an “invisible table”, which keeps people related but at a distance, it is an abstract space that denotes relations but without a physical quality. In response to similar post-war European social context, Jürgen Habermas (1962, 1989) emphasis on the discursive character of the *public sphere*, where people come together to discuss and debate public affairs. The physical places in the city became important venue for such discourse and it is where the public opinion can be formed, this “infrastructure of public life” (Calhoun, 2013) is constituted by public space such as the coffeehouses and other publicly accessible spaces.

Richard Sennett (1976, 1992) reviews the historical development of the concept of public and brought up the issue of the decline of public domain in contemporary society. His writing often references to the urban setting and the physicality of public space, such as the illustration of public life that happens in the theatre foyer, where the physical space is given a meaning and relationship to social life. In a spatial sense, the concept of *collective space* breaks through the dichotomy of private versus public space, and focus on how space is inhabit by the public rather than to define it through property ownership (de Sola-Morales, 1992). While the different concepts of public space described above remain largely in the realm of socio-political discourse, it has influenced their contemporaries and the coming generations of architects and urban designers, many of whom found positive potential of public life and implement through the design of public and private urban projects.

This paper will review the idea of public space grounded in its physicality, and in context of urban form and the city. The public spatial types can be understood in a spectrum from exterior to interior space (fig.1), along which we can find the common categories of the *open public space* (the streets and the parks) and the *commercial/ privately-owned-public-space* (the market or the coffeehouse). While there are abundant discussions on these spatial types, the public space of cultural architecture, such as the museum lobby or the theatre foyer, which the majority are publicly-owned and accessible, are less discussed. As the cultural institutions often operates with a certain public vision/mission, it gives the cultural space a prescriptive character that is different than the open park or the shopping mall. In this study we would focus on this third category – the institutional public space. Each of these spatial types posses distinct formal structure that directly or metaphorically represents an idea of public life. Although it was marginally addressed in the public space discourse, the cultural public space deserves more attention in regard to their formation and effect. How are the cultural public spaces reflecting the intention of its operating institution? Are the public users inhabiting these spaces as intended?

Through the study of cultural buildings, we would unpack the concept of *institutional public space* and its effect to urban form. The initial subjects would be the more established public cultural institutions, exploring how the cultural building and its public space might become the physical embodiment of the institution. The contemporary cultural building has the social significance as the churches in ancient time, it is also the often contested space with a crucial role in urban life. The investigation of the cultural public space will provide an additional layer of understanding to the complex construction of the urban public space.

### 3. Reading Public Space through Figure-Ground Drawings

As we are constantly exposed to the imagery of cultural buildings, an alternative reading in plans and drawings can save us from the distraction of its appearance, and to examine the formal structure for the intention and value that it carries. Furthermore, to read the cultural

building not as an isolated object, but within the urban fabric enable us to review its contextual relationship and its contribution to the overall urban form. In this study, the figure-ground diagram is utilized as the main analytical tool, where the dichotomy of solid and void, representing building mass and open space, reveals how the cultural building interacts (or not) with the surrounding, and illustrate the formal definition of public space. The investigation of public space is further extended into the interior, in the fashion of the Nolli-Map of Rome, where spatial continuity is mapped out to include the accessible public interior. Here the building threshold became a key element to denote the passing from exterior to interior, while the public flow and activities is maintained. In this approach, emphasis is placed on the experiential and spatial quality of the cultural building at a human scale, instead of the aerial visual and iconography. This morphological analysis of the cultural building is first approached with a descriptive dimension, to understand how it works and the intention that creates it, then further develop to a prescriptive angle to inform design and integration into urban space (Chiaradia, 2019).

Several classic text on urban form is referenced to frame the analytical reading of cultural building through urban and architectural plans. The Italian school of urban morphology has a strong tradition in the study of urban form, through the concept of type corresponding to the idea of the city (Marzot, 2002). Among these Italian architects and scholars active in the mid-20th century, Aldo Rossi and his seminal work *The Architecture of the City* (1966, 1984) is probably the most well-known and influential on the practice of architecture and urban design until today. Among the narrative on urban artifacts and the analogous city, the concept of “primary element” is particularly relevant to our study of cultural buildings, where “they possess a value ‘in themselves,’ but also a value dependent on their place in the city” (p. 87). Developed around the same time in the United States, Colin Rowe and Fred Koetter in *Collage City* (1978) also responded to the modernist architecture and their application in urban planning, raising concerns of the issues on diminishing “public-ness” and “the crisis of the object” (p. 50). Their comparative studies in figure-ground drawings of the traditional and the modernist city center is a clear illustration of how modern architecture often become the “space-occupier” where the solid is read as figure on empty ground. Instead, the cultural building could take the role as “space-definer” where the void (open space) can be read as the figure with clear spatial defi-

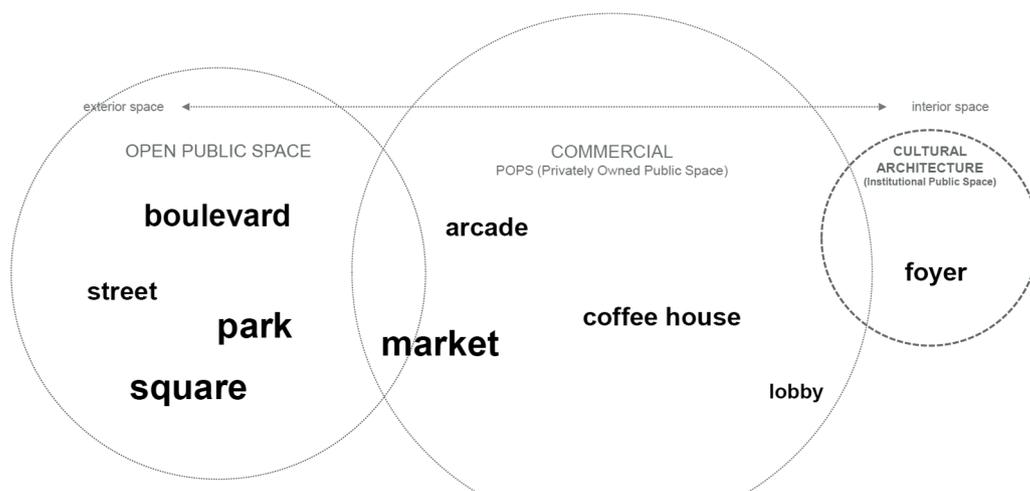


Figure 1. *The Spectrum of Public Spatial Types.*

nitition. This would be an important clue as we examine the culture buildings in the following cases, to review and assess their contribution to urban form.

Public space does not limit to the streets and plaza but is extended into the interior of public buildings. This public-private spatial relationship is well-represented through the Nolli-Map of 17th century Rome, where the accessible interior of public buildings is denoted in white, providing a reading of public space that flows beyond the boundary of a building. Within the compact urban fabric of Rome, the solid (building mass) became not objects but the ground, while the void (public space) are read most clearly as figures. This reading is in accord with one's experience of walking through a city in contrast to looking at the photograph or image of the city. In the figure-ground drawing of private and public space, the landmark buildings are not seen as their exterior architectural image but as the void of its accessible interior space, in similar connotation to the open public space that it is connected with. If we look into the building scale and architectural elements, the floor plans can give further information into the reading of the public interior, as architectural scholar Robin Evans stated that the architectural plan can describe "the nature of human relationships" (Evans, 1978, 1997). What he seeks from the plan is the organization of space that reflects design intention and can be read as "a picture of social relationship" (p. 62). He relates the connectivity of rooms with the issue of privacy (domesticity), and how the passage as an architectural element affects the path (and public encounter) through spaces. In similar lens we could read the plan of the cultural buildings to learn about their intention and attitude towards the construction of public-ness.

The Nolli-Map has introduced a way to look at the city that integrates urban form and open space with the architecture plan, which enrich the reading of public space including the accessible public interior. This is particularly useful for our study of the cultural buildings as it represents the *prescriptive* public intention instilled by the cultural institution through its design. The interior space carries equal weight, if not more, as its surrounding exterior to construct the public space that is inhabited and used by the public. In a larger scale, how the cultural building is placed into the urban fabric is also telling about the positioning of the cultural institution and how it imprints into the urban form.

#### 4. The Cultural Building in Response to Urban Form: International Cases

The different attitude of how the cultural architecture is situated within the urban context can be explained through two cases of iconic cultural building, the Center Pompidou in Paris and the Guggenheim Museum in Bilbao. Both of them presents a strong architectural image and is regarded as major urban strategy, yet from the perspective of urban morphology they represent two quite opposite approaches (figure 2). The Center Pompidou is situated within the old urban district of Beaubourg, where the architects Renzo Piano and Richard Rogers decided a site strategy early on at competition stage, to press the building to the edge and fill up half of the plot, to open the other half as the "piazza" (Silver, 1994). Instead of placing the building as an object centered in the square plot, the Pompidou has not only responded to the surrounding context but it has contributed in urban form with a well-defined public space. Provided with a public façade and the extension of plaza space into the open ground level interior, the piazza at the Pompidou sees the most vibrant cultural activities from street performance to public events or festival, in compliment to the organized arts and cultural programs by the cultural institution. On the contrary, the Guggenheim Bilbao is spectacular object that its surrounding waterfront open space has to be surrendered as the backdrop to this jewel-like building (Philip-

pou, 2015). As the visitor approaches the building through the streets of Bilbao, the museum is unmistakably a visual attraction and terminus from several vistas, as the architectural image is already familiar prior to arrival. The vast waterfront park and promenade has only one focal point yet too open to contain any activities, perhaps other than the tourist in search of the best selfie location. The old city fabric stopped abruptly at the edge of the waterfront park and the architectural object sits on its open field alone that could have been anywhere.

In reference to *Collage City's* description regarding the potential of architecture to form urban space, the Pompidou can be understood as a “space-container” while the Bilbao is clearly the “space-occupier”. This illustrates what the cultural building is capable of, either to contribute to the urban context and create meaningful public space, or to consume its surrounding ground with no interaction or contribution. This criticism is also along the line of the urban form debate between traditional ‘townscape’ and modernist planning ideals, which the new towns of towers in (green) field has created a reverse figure-ground diagram with absence of spatial definition.

The question to ask is then, at the level of master planning and urban strategy, will the cultural building remain a symbolic icon, or can it fulfill the public purpose to support and improve local urban form? In many cases, the site selection of key cultural building is an executive-level decision where the expected benefit is usually at a city or regional level, therefore the consideration for the immediate neighborhood and the cultural building's integration to the urban fabric might not be on the agenda. Moreover, with selected sites are usually in vast open area like the waterfront or green park, the reason might be precisely that to prioritize the creation of photogenic image over experience. However, at a site and building level, there are still opportunities for the cultural building to become urban space definer. The case of the Pompidou and the Guggenheim Bilbao has presented two distinct attitudes towards urban form taken up by the cultural building, from integration to isolation. Most cultural projects sit along this spectrum with specific local conditions, there is certainly potentials for them to give more considerations in response to the urban context.



Figure 2. *Figure-Ground Plan (at same scale): The Centre Pompidou (left); The Guggenheim, Bilbao (right).*

## 5. The Cultural Building in Creation of Public Space: the case of Hong Kong

With the approach to read cultural buildings in plan and to seek architectural response for positive urban form contribution, the next case study, the Xiqu (Chinese Opera) Center in Hong Kong, will be analyzed at a building scale through its floor plan and at the urban scale to examine the figure ground relationship and master plan potentials. The Xiqu Center theatre is the first building completed in the West Kowloon Cultural District (WKCD) masterplan, followed by the large contemporary arts museum, the M+, under construction and a dozens of other cultural facilities and associated amenities in the coming years. It is also a timely opportunity to review the district-in-making in order to inform the design strategy of the many upcoming projects.

The overall district situation is similar to that of Bilbao and many urban waterfront developments with the character of a “terminus” that discontinues the urban fabric, although the Xiqu Center is located at the eastern end of the district, the “gateway” position that sees the transition from existing urban fabric into the future district urban form. Reviewing the proposed master plan, it has a rather compact urban massing along the strip of land stretching from the current urban edge to the waterfront, with a density that delineates internal “streets” and public plaza. All building mass appears to be built-to-line and with high plot coverage to maintain the dense urban fabric, including that of the Xiqu Center, which occupies almost the full eastern parcel at the intersection of two major roadways that bounded the district.

The program requirement of a 1000-seat grand theatre along with high demand of other functional area has dictated that the building would require almost full site coverage. However, with similar intention as the Pompidou to compress the building massing and release space for plaza, Xiqu Center’s architect, Thom Bing, has given a creative solution to the urban question. His proposal is to elevate the grand theatre auditorium to the 4<sup>th</sup> floor at 27m, allowing a thoroughly open ground level, as he would call the “public plaza”. The design of this public plaza literally removes the building boundary to become a semi-outdoor public area that is accessible 24/7. With no doors or gates it intends to blend in with the surrounding context, although there is none at the



Figure 3. Proposed Master Plan for The West Kowloon Cultural District, Hong Kong.

moment, as the master plan is being completed. It is not only a theatre foyer for the performances but people can pass through and use “the plaza” on a daily basis. The constrain of a compact plot with tight program requirement did not limit the architect’s vision in the making of public space, and it was answered with innovative solution that satisfy both aesthetic and practical needs.

In comparison of the figure-ground plan and Nolli-Map diagram of the Xiqu Center, we can read its intention to incorporate an urbanistic strategy into the design of a cultural monument. Unfortunately, the site condition is not ideal as it is bounded by major roadways and disconnected with the surrounding, also the existing old city fabric has already been replaced by the tower podium typology that gives minimal consideration in urban form. However, the design of the Xiqu Center still attempts to create an internal condition that resembles an urban public space, even with trees planted throughout in the covered plaza. This again exemplify how the cultural building can contribute to urban form and public space in a variety of situation. To continue the urban space sensitivity throughout the new district, the potential lies in the adjacent parcels as they are being developed, whether it would be able to interact and compliment this internal public space. In fact, the super density of Hong Kong has given a good baseline to produce compact urban form with a clear figure of public space void.

Although this paper advocate the approach to read cultural building in urban space through the plan but not the image, this method does encounter some issue at the human scale, where the plan drawing is not able to register the subtle height difference occurring at the ground level. In the case of the Xiqu Center, on plan it appears to be a fully open plaza throughout the ground level, however, in reality the plaza area is fragmented into different zones of varying elevation with steps and ramps to connect. In order to accommodate those height differences with limited space, a rather complicated path is resulted and not as welcoming as the plan or even the original design intention. This leads to the consideration of next scale of public space creation, where details such as height differences and street furniture are also design component that contribute to the success (or failure) of a public space.

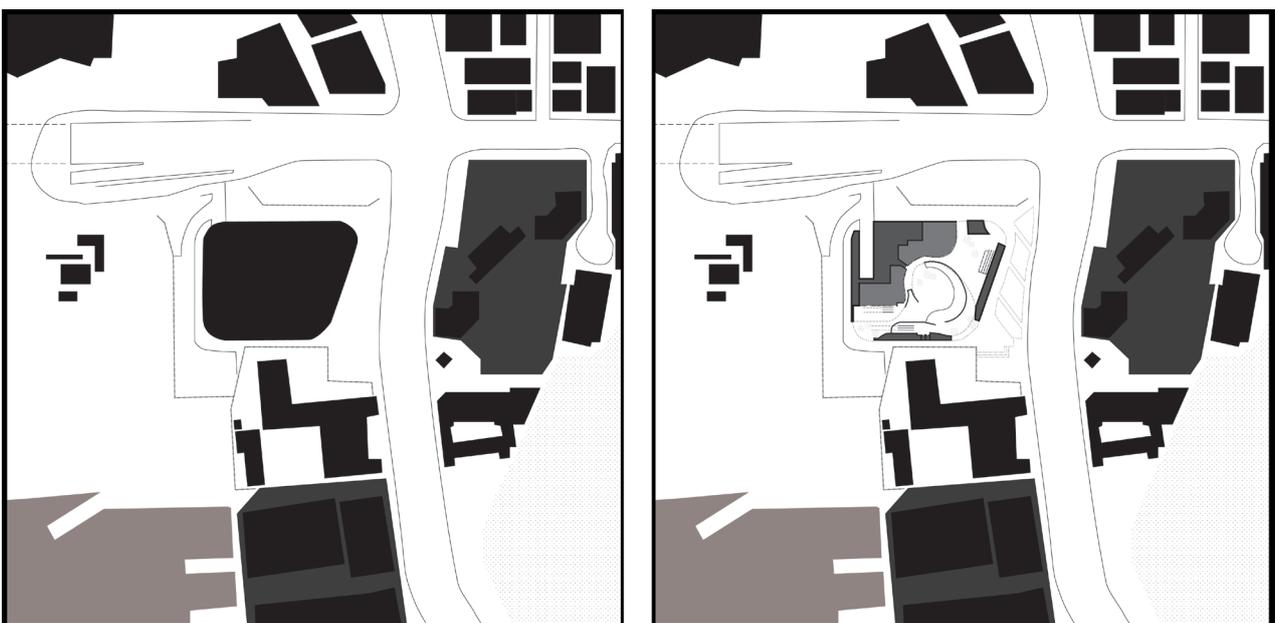


Figure 4. *The Xiqu Center: figure-ground massing (left), Nolli-Map diagram (right).*

## 6. Conclusion

The cultural building is a crucial part that constitute the urban form and public space, yet sometimes it became a marginal issue that did not receive the attention it deserves. From the study of this paper two reasons could be stipulated, the first being that the public space discourse are more frequently focused on the subject of open public space or to question the privately-owned (commercial) public space, as a result the public space at these essentially public cultural buildings are many times bypassed. On the other hand, the cultural buildings are usually perceived from the exterior with emphasis on its aesthetic architectural image or the social representation and symbolic interpretation, less attention is paid to the formal structure of its interior and how people inhabit it. The approach to read the building in plan and in context is an attempt to bring back the attention to this often overlooked interior/exterior public space at the cultural building. Further investigation on this particular type of public space should be conducted to understand the institutional nature of the cultural space, which they would be intentionally designed to be public. It would also be meaningful to study further how people use and interact with these institutional public space, whether there appears certain behavior or appropriation as it would happen in other urban spaces.

Through the review and comparison in figure-ground plan of the Centre Pompidou and Guggenheim Bilbao, it is shown that the two equally iconic cultural landmarks can have quite different, positive or negative, contribution to the urban form. The detail analysis of the Xiqu Center in massing figure-ground and Nolli-Map diagram explore the relationship of cultural public space and its surrounding through two levels of spatial understanding, in master plan and the public interior. While the massing reading of Xiqu Center tells its position within the cultural district as a solid component to make up the compact district fabric, through the ground-level plan it reveals the idea of an interior public plaza where the cultural building is giving back to the urban context. Although there are other issues that the Xiqu Center has to overcome as a genuinely “space-definer”, it is nonetheless a case with clear and strong urban intention and the potential to develop as the cultural district is being developed.

This paper can be considered as a first step towards this approach for the study of cultural public space. Initial findings could be concluded as proposal of key considerations in four levels to inform the design and planning of cultural buildings in urban context. At an overall planning level, the site selection of cultural building should carefully consider its purpose, whether it is just an object in the open field or can it be located in somewhere that can support and improve local urban form/life? The next level of consideration is at the site plan scale – what would be the design solution in terms of building massing that allows the cultural building to define urban space? The third level focus on the ground floor plan where it should be considered as an extension of the public space, and how it can flow and works with the surrounding exterior space. Finally, at a user level items such as street furniture, accessibility and comfort, as well as management and operation would also be important public space consideration, although this is beyond the scope of the current discussion.

This study has been looking at the cultural building in two perspectives, as a solid mass within the figure-ground urban context, and as the public interior where public space flows beyond the building threshold. These renewed perspectives reiterated emphasis in the void (public space) instead of the solid (building object), and bring the understanding of cultural public space to a more humane and experiential dimension. This approach is not to dismiss the aesthetic or symbolic value of cultural architecture, but to compliment it. With the attention to often overlooked aspects,

it could increase the depth of understanding in cultural architecture and public space, towards an effective contribution to the formal constructions of the urban landscape.

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