

# Concert Hall Design at Kelurahan Neglasari Bandung City

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**Abstract**—Entertainment has become one of humanity's primary needs, especially for those who live in big cities. One of the most preferred ways to enjoy entertainment is by watching performances. For that purpose, performance halls had been built in numerous places. But most of it combined the three types of performances, namely music, dance, and drama into one multipurpose building. Each of these types of performances has its own acoustic characteristics. Therefore, the acoustic system in a multi-purpose building is not ideal. Especially for classical music performances which need special treatment for their acoustic system. However, the general public's preference for classical music is relatively low. Nevertheless, classical music in Indonesia has a high potential. There are numerous classical music communities from various circles in society. The purpose of this paper is to design a concert hall that aims to accommodate the activities of the classical music community and to create connectivity between the general public and classical music communities. Thus, it needs a place to grow and develop a sense of appreciation towards classical music in the general public. The use of metaphor architecture in this project is to transfer classical music concepts into architectural concepts. In this case, the sonata form is chosen as an object of metaphor because it is the most commonly used musical form in classical music pieces. The concept of sonata form is interpreted in the concert hall design through the building massing and zoning.

**Keywords**—classical music, concert hall, metaphoric architecture, sonata form

## I. INTRODUCTION

Along with the globalization era, entertainment has become one of human's primary needs, especially for those who live in big cities [1]. To facilitate the need for entertainment, numerous performance buildings, community centers, and other entertainment purposed buildings had been built throughout the city. For example in Jakarta there are Graha Bhakti Budaya, Gedung Kesenian Jakarta, Aula Simfonia Jakarta, and many more. Meanwhile, in Bandung there are Dago Tea House, Gedung Rumentang Siang, and many more. But most of the performance buildings that have been built combined three kinds of performances namely music, drama, and dance. While these three kinds of performances have their own acoustic characteristics, combining them will cause the acoustic system to be not ideal.

The difference in reverberation time needed for each of the three kinds of performances prove that a multipurpose auditorium could not give an optimum aural experience, especially for classical music performance that would be recommended without the use of a loudspeaker. Nevertheless, the general public's interest in classical music is not low. It can be seen from Konser Akbar Monas 2019 in Jakarta that was attended by 13.109 people [2]. Furthermore, a well-known cellist named Yo-Yo Ma also held a concert at Jakarta International Theatre on 6<sup>th</sup> December 2019 which was attended by 2.500 audiences. Both of those concerts are not held in a performance building specifically for classical music.

Despite the fact that the enthusiasm for classical music in the general public is not low, not every social circle has an interest in this genre of music. Especially because the duration for classical music is prone to be longer than pop music or other popular music genres. In research done by Ayub Prasetyo on music vocational school and high school students, pop music is the most preferred music genre with a percentage 51.41% for music vocational school students, and 83.01% for high school students. While for classical music, only 21.52% of music vocational school students took interest in it, and 0% for high school students [3]. It shows the lacking of preference towards classical music among teenagers.

Looking at it, a place to accommodate the general public's enthusiasm in classical music is desired. Additionally, a place to educate the younger generation about classical music is essential to engross them in it. This facility is not only for classical music performances but also a space to develop creativity and skills in music for the general public especially the younger generation. This project is a national-scale concert hall with the goal to heave the economy by adding the recreation space for all groups of people, and consecutively becoming the city icon to attract visitors and tourists from other cities.

This article contains the planning of a concert hall with metaphoric architecture theme and picked up sonata form as the concept which is the most commonly used musical form in classical music pieces. The goal of this project is to grow and develop an appreciation towards classical music and to build

connectivity between classical music communities and the general public.

**A. Concert Hall**

Classical music performances might be performed by a soloist (recital), or an ensemble (music group, choir, or an orchestra) [4]. A favorable concert hall should be able to achieve an ideal acoustic condition, that is on the condition that the sound coming from the musical instrument on stage should be able to be heard from the audience seats with sufficient volume, harmony, and good visually [5].

The presence of a concert hall has two purposes, which are to give a mutual interrelationship between musicians, music promoters, and music lovers; and to develop the music industry in Indonesia. Moreover, the function of a concert hall is to accommodate the general public for music purposes [6]. In accordance with its purpose, the most essential technical aspect to be fulfilled is its objective and subjective acoustic conditions [7].

**B. Metaphoric Architecture**

The word metaphor arose from a Greek term meaning “transference (of ownership)”. Metaphor could be interpreted as a figure of speech based on similarities and comparisons. It could be a displacement of concept, or to transfer a concept of an object to another object through a classic comparison. Metaphor in architecture is similar to analogy, which is to connect an object with another object. Except that the connectivity between the two objects is more abstract than the analog architecture. The execution of metaphor in architecture could be an attempt to replace a meaning of an object with another object or to perceive an object as it is another object. [8,9].

**C. Classical Music**

In general, Indonesian people know classical music from the non-orchestral instruments such as guitar and piano, because those instruments are commonly played by the general public and are offered in numerous music courses. Classical music accentuates the aesthetic and artistic aspect, but it is unrestricted to be played in social events such as weddings, and others.

Classical music performance is primarily delivered by an orchestra. In general, a complete orchestra consists of 4 group of instruments, namely wood wind section, brass section, percussion section, and string section. The wood wind section consists of 1 piccolo, 2 flutes, 2 clarinet basses, 2 oboes, and 2 bassoons with the additional instrument the English horn (*cor anglaise*) and contrabassoon. The brass section consists of 2-8 french horns, 2-5 trumpets, 2-3 trombones, 1-2 bass trombones, and 1 tuba. The percussion section consists of a timpani, snare drum, cymbal, triangle, wood block, tambourine, marimba, silophone, and glockenspiel. While the string section consists of 16-30 violins, 8-12 violas, 8-12 cellos, and 5-8 double bass [10].

**D. Sonata Form**

Sonata came from the Italian word “sonare” or “sounare” meaning to sound. The term “sonata” is usually overlapping with other terms like “sonata allegro”, “sonata form”, and “sonatina”. These terms referred to “sonata” term which has two definitions. The first definition refers to a musical form based on the structure of the piece. Sonata form with this definition is typically made out of three to four sub parts (movements). While the second definition refers to a musical form based on composition type, which is a solo part of a musical piece and is a standard instrumental composition in the classical era.

Sonata form has three major parts, including exposition, development, and recapitulation. The exposition part contains three subjects with contrasting characteristics. For instance, if the 1<sup>st</sup> subject tends to be fast-paced and loud, the 2<sup>nd</sup> subject tends to be more relaxed and slow with a transition based on the 1<sup>st</sup> subject in between. After the 2<sup>nd</sup> subject came to the code data which is based on the 1<sup>st</sup> subject. And then in the development part consists of the mix of 1<sup>st</sup> subject and 2<sup>nd</sup> subject. The development part is the main part and the most exciting part of a classical music piece. Then the recapitulation part is similar to the exposition part with 3 subjects, but the three subjects in recapitulation are using the same key.



Fig. 1. Illustration of Sonata Form

Linguistically, exposition means exhibition. In this context, the object being exhibited is the theme. The exposition contains two themes, namely main theme which is usually firm, with loud dynamic or forte, and the second theme is called secondary theme or sub orinate theme which is more melodic. The development part brings a dominant key to the tonic respectively which also holds the purpose of guiding the theme back to the recapitulation part [10].

**II. METHODS**

The planning method is divided into several components, which are the troubleshooting method, and collecting data method.

**A. Troubleshooting Method**

The troubleshooting method is done by field observation and literature study. The observation is done by visiting concert halls with multi-purpose functions to observe the acoustic condition audibly and visually. While the literature study process is done by reading books, journals, news, and articles references from physical sources or the internet.

**B. Data Collecting Method**

The method used for collecting data is by a survey and literature study. The survey is done to get data on the site. While the literature study is done by citing and collecting literature references and theories referring to the empiric study of a research report, government documents, and books with similar themes to support the substance and validity of the project.

**C. Data Analysis Method**

The analysis done to the collected data includes site analysis, programming, and massing. Site analysis includes the existing condition of the site and giving alternate solutions to the problems found around the site. The programming includes the analysis of function, user, activity, space requirement, standard, and zoning.

**D. Synthesis or Design Concept**

The analyzed data will be synthesized and summarized into a concept. The synthesis process in the concert hall process is based on the principle of metaphoric architecture and adjusting to the objectives of the project. The synthesis method includes bilateral process and literature comparison.

The planning concept refers to the metaphoric process of the sonata form. Metaphoric architecture is being integrated with classical music by interpreting the sonata form into architectural principles.

**III. CONCEPT AND DESIGN**

**A. Design Location**

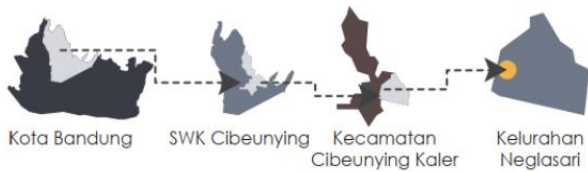


Fig. 2. Location

The site is located at Pahlawan Street N0. 70, Kelurahan Neglasari, Kecamatan Cibeunying Kaler, Bandung City. The site is adjacent with Pahlawan Street, Simpang Pahlawan Street, and Cikutra Baru Raya Street.



Fig. 3. Site Dimension

The site is rectangle-shaped with a perimeter of 120 m x 300 m. the total area of the site is 36.000 m<sup>2</sup> or equal to 3,6 hectares. The site is bordered by walls on its north, west, and east side, while the south side is adjacent directly with Institut Teknologi Nasional Bandung.

**B. Design Concept**

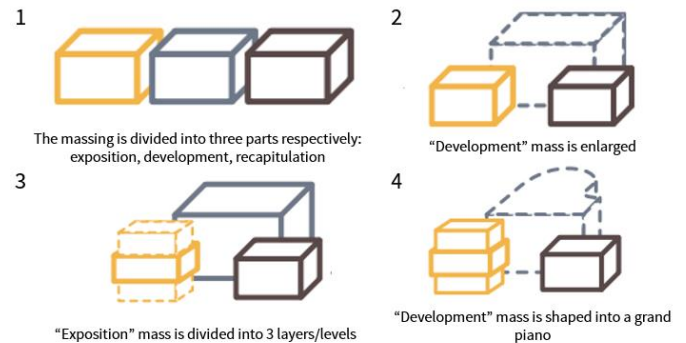


Fig. 4. Massing Concept

The massing is separated into three main masses that betoken the structure of sonata form specifically exposition, development, and recapitulation. The development mass is enlarged as it is the focal point of the sonata form. The exposition mass is separated into 3 layers to represent 3 subjects in exposition which have different keys (major-minor), while the recapitulation mass has singular layer because the subjects are using the same keys. Then the development mass is formed into a grand piano to highlight the contrast of the focal point.

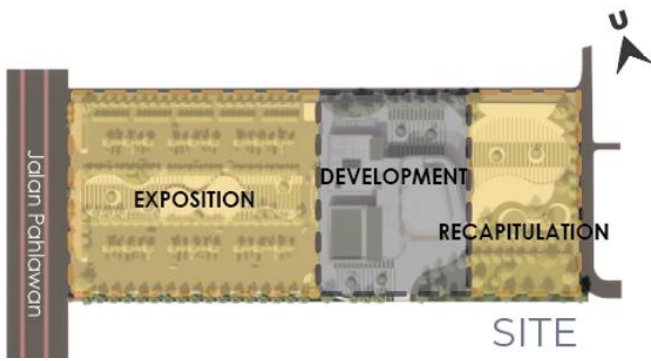


Fig. 5. Site Zonation

The zonation of the site is separated into three main parts which represent the structure of sonata form. In the exposition zone, a contrasting circulation zone is separated by an elongated rain garden throughout the site, which is the vehicle area and pedestrian area (public realm). In this public realm, an elevated deck is provided to betoken the different levels of keys in the exposition of the sonata form. The bottom part of the deck could be used for street vendors.

The development zone is the concert hall building which is the main attraction. This zone is using curved elements and is less rigid compared to the other zones to deliver attractive and focal impressions on site.

The recapitulation, as well as the exposition zone, is separated into two contrasting areas for vehicles and pedestrians. The pedestrian area in the recapitulation zone is more private and has no significant elevation difference as in the exposition zone.

area to recapitulate the visitor’s accumulated knowledge from the exposition and development zone.

The rooms in the exposition zone include an exhibition of well-known classical music composers based on the classical music era, a display of classical music instruments, audio-visual rooms to listen to familiar classical music pieces, and other public areas as a gathering place for the visitors. The rooms in the development zone are focused on performance needs such as a concert hall, dress rooms, rehearsal rooms, ticket booths, and a library. While the rooms in the recapitulation zone are constituted to repeat the experiences from the exposition and development zone. The visitors could try to learn the classical instrument in studio rooms and to buy souvenirs or other musical instruments.

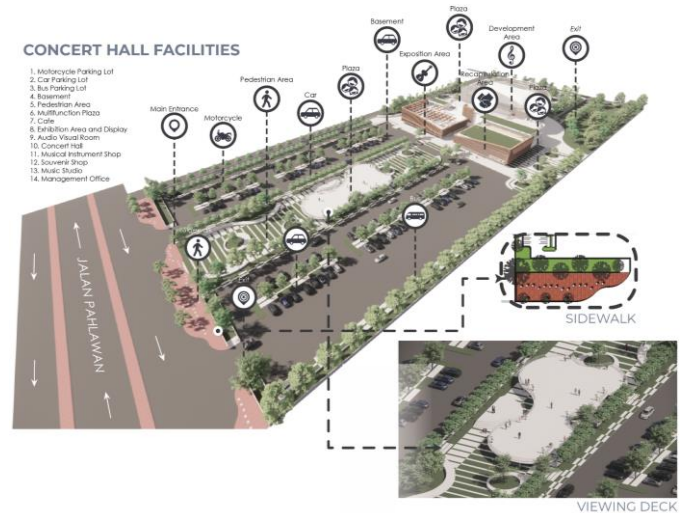


Fig. 7. Theme Implementation

Adapting the theme and concept, sonata form is interpreted as architectural objects that could be seen from the distribution of zone and function on the site. The sidewalk adjacent to the main entrance is decorated with a pattern based on Ludwig Van Beethoven’s Symphony no. 5 as it is one of the most well-known classical music pieces in society.

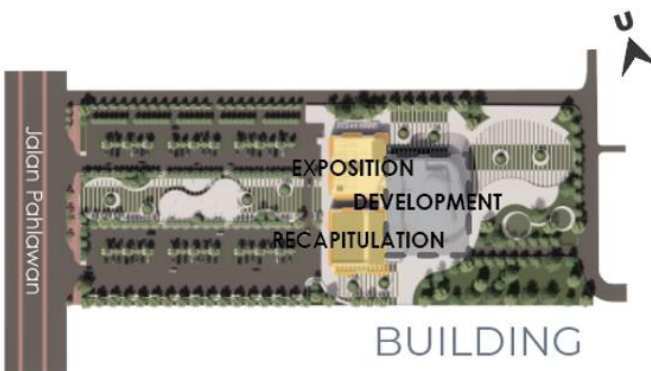


Fig. 6. Building Zonation

The zonation inside the building is similarly separated into three which are exposition, development, and recapitulation betoken the structure of sonata form. The exposition zone is the introduction of classical music which is to builds the first impression of the visitor. The development zone is an area in which the visitors will cultivate a further understanding of classical music through enjoying and observing the classical music concert first-hand. While in recapitulation zone is an



Fig. 8. Site Plan

#### IV. CONCLUSION

Sonata form is an abstract object that could only be enjoyed with hearing. In this project, those abstract concept is interpreted into architectural concept visually. This metaphor process is done through the zonation concept and massing concept both on the site and on the building.

This project aims to provide a place for the classical music community to create and share with the general public. Other than providing a place, this project also aims to grow and develop the general public's enthusiasm in classical music.

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