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Architecture as a Process
Research Plan
(AR3A010)

Problem and Relevances

Architecture often manifests itself for a multitude of decades in the built environment, as something that is static. It is in itself an end-result, often designed as a seamless whole. The spatial configuration and experiences within the building are often staying the same. The building is permanently staying in his contexts until it gets demolished. Along the lifespan of a building, which is often determined to be around 50-100 years, lots of things change through various scales. Nowadays, cities are expanding and get built up and demolished at a rapid pace, in which the context of a particular building changes. Socio-cultural changes causes that people inhabit and use buildings differently throughout time. This causes that the initial program that was implied for a certain building might become irrelevant later on. Governments predict the demographics of cities by certain models, which are turned into development plans as something that is fixed for the next couple of years, decades or even centuries. The notion of unpredictability or uncertainty is not taken into account. Even in music, it is seen that trends in popularity of various genres or artists are subjected to constant fluctuations. If our cities, environments, technologies, economies and even our own ideas, activities and (musical) preferences change constantly, why do we construct and design architecture still as something that is fixed, rigid, pre-established, and permanent? Can't we create architecture which generates freedom in which it is able to respond to unforeseen activities? An architecture that is open for interpretation of its users? Can we create architecture as a process rather than an end-result, which responds to the notion of time and uncertainty?

My approach for the Music Marvel is that the design can respond to uncertainty. The idea came partly from the site analysis of the Binckhorst and the theoretical framework what was introduced to us during Theory Research in Q1 of Msc3. As a group, we declared that the most qualitative aspect of the Binckhorst was its heterogeneous character, containing elements which are not necessarily cohesive. The Binckhorst is not based on a conventional type of industrial area. Instead, it is a patchwork of different programs, appearances and cultures. It feels like an uncontrolled area, built from the bottom-up, where different subcultures and creative companies emerge. These phenomena give the Binckhorst its diversity, which I think, should be preserved. I believe that the Music Marvel should express these complexities and should represent the characteristics of its time and place, rather than denying its positioning in time by homogenizing the program or its appearance.

Another main concluding theme from the Binckhorst analysis as a group was that we felt the place was very ephemeral, a place to pass through, without any (urban) anchor points where you can recreate. The concluding notion of ephemerality led to the group abstract where we tried to link ephemerality to the music practice. In the group abstract we state that music venues, are often static and fixed, iconic objects in cities. Moreover, these buildings are primarily used during the evening or night, but during the day they are usually non-accessible for the public. Most of the time, they serve only one group of people, for example classical music fanatics. The staticness of the musical building type is contradicting with the music practice itself, since music is very fluid, in which it slips through time, and is perceived differently from performance to performance. When a building can slip through time like music, it is rather unique for the site. Especially with music events, the memory is linked to the specific place where the venue has taken place. Is there a way to bring these two practices closer together? Can the fluidity of the music practice be as inspiration for the architectural practice, in which the building is different every 'performance'? Can the heterogeneous character of Binckhorst be preserved or even enhanced and represented within the 'Music Marvel'?

Fig. 1. Think, feel, do, Binckhorst group analysis. By group 6: Samuel, Lilli, Louis, Maurice.

Extracted Ideas from the Music Practice

To answer these questions, I looked back at the theoretical framework what was introduced to us in the Theory Research Reader. In *The liberation of Sound*, Edgar Varese pleads that the musical composer should not build upon the arbitrary, but search for new instruments, sounds and variations. Varese was less concerned with the musical form, harmony, or melody. He introduces the 'sound-producing machine', which produces the sound as given by a score. This 'machine' can then be modified by the composer, and is free in its number of cycles, octave subdivisions, desired scales. It creates new dynamics in music, creates differentiations of timbres and sound combinations. Varese drafts the analogy of ''producing a new flower without killing the old plant'' (Varese, E. 1959). Varese, in *Poem Electronique* and *Deserts* cuts out various sounds that remind the listener to a sound he might recognize (e.g. a scream or bang), and organized these heterogeneous sounds one after each other, which counteracts the conventional idea of creating one seamless musical whole, such as the case in classical music practice. The composition is still a totality, but made of heterogeneous sounds, which are opposed to each other, creating a tension between the different sounds. Similarly, we as architects could organize spaces one after each other, which establishes the similar tension as in the musical composition.

John Cage, in *Composition as a Process: Indeterminacy*, touches upon the idea that compositions should be indeterminate instead of determinate, leaving room for the composer to create a musical form which is open, free for interpretation. Then, the composition is original and comes to life. The performer can perform from his own identity and its own inner center, since the composition is indeterminate with respect to their performance. A comparison could be made to the architecture practice, in which the building becomes interpretable by its user (in this case musicians, event-organizers or eventgoers), for example, where experiences or spaces can be modified. Thus, the building becomes unique every different 'performance'. John Cage subdivides musical pieces into four main themes: structure, method, form, materials. In the texts he declares if they are determinate or indeterminate (Cage, J. 1958) and thus interpretable by the performer. Similarly, architects could determine certain elements of an architectural piece to be solid, fixed or determinate, and other elements to be fluid, non-fixed or indeterminate (fig. 2).
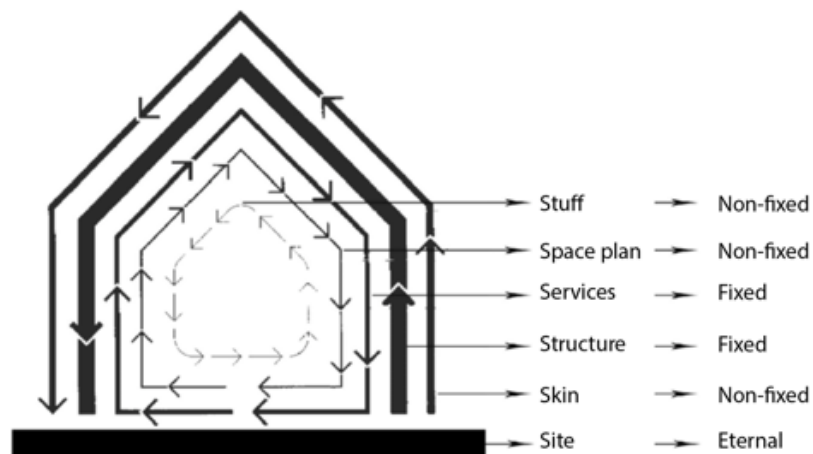

Fig. 2. The ''Shearing Layers'' (Brand, 1996) reinterpreted, to be extended. During the research I want to elaborate on building parts and determine what should be fixed and what not. Authors own drawing.

Application in Architecture

The ideas from the music practice can be extracted and used in architecture, in which a different way of architectural thinking can free people from a tempered system. As Manuel Gausa states, throughout history we have seen a transition of architectural convention and types regards the notion of time and space, from classical, to modern, to contemporary conventions. The classical notions were based on solid, rigid, symbolic, divine, and ritual conventions. The modernist notions reflected the machine age, and were also based solidity and rigidity, but differed in its mechanical, machinal and functional conventions. Nowadays, the information age presents itself as an unprejudiced landscape, mutable and informal, subjected to the strength of the individual (Gausa, M. 2005, in Leupen, B., 2005). These architectures are all products of time. The information age brings about new possibilities to think about architectural form, due to the emergence of the computer-aided-design and parametric design techniques. The discourse seems to drive away from its initial thinking of a specific form of type. Now it seems as there is not one leading convention anymore.

Instead of focusing on establishing a building that is a seamless object, the emphasis during my research lays on designing a framework within which different (unexpected) activities and programs are organized. Without thinking in a specific architectural typology or form, ''the design would emerge as a product of the various forces in play in the milieu. It would not be imposed from outside as a specified form, but would work […] from within'' (Ballentyne, A. 2007, p.49)

The framework is flexible and consist out of various heterogenous proportion-based components or elements, which define a space, perceptual or pragmatic. The goal is that these elements are interpretable by the users of the building, in which there is not one final end-result created. Spaces and experiences can be organized after one each other, which do not meld into each other, but are opposed to each other, creating a tension, like the different sounds of Varese's *Poem Electronique* or *Deserts.* In this way the heterogeneity and multiplicity of the Binckhorst is reflected inside the Music Marvel. It can host different genres, different programs, different experiences. The Music Marvel becomes different every time when other performances and events are at play. What the building becomes is thus determined and appropriated by the people that have a belonging with the building, and not only by the architects or planners that are only involved during the design process, when the building is not even build yet. What should be fixed, what could change? What are the restrictions/constraints? What are the rules? What are the range of possibilities of the system? An example of adaptable projects accommodating different needs is visible in figure 3, 4, 5, 6 and 7.

Case Study Examples

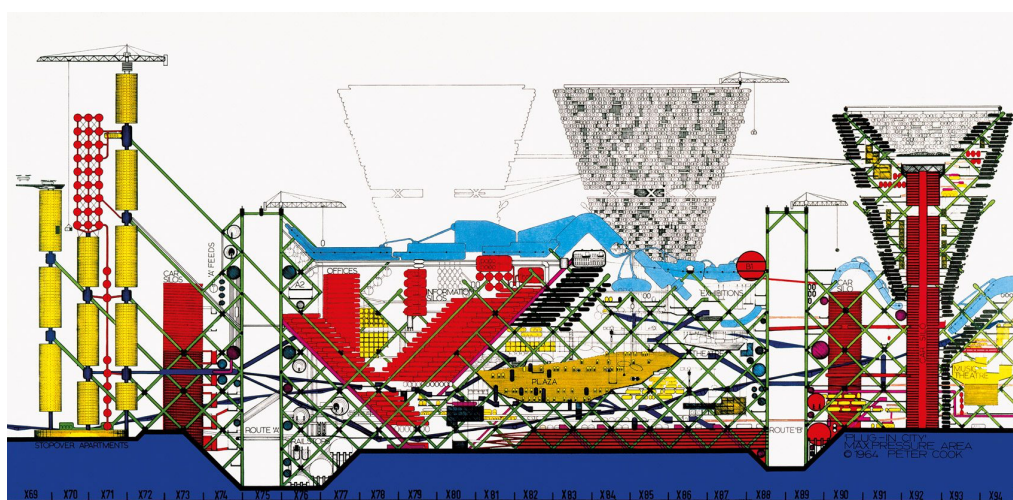Fig. 3. Plug-in-city concept, *Archigram* (1966).

Fig. 4. Republica Portatil (2014). *Pabellon FAV*. From musical performance, to homeless shelter, to visual expo.
https://www.republicaportatil.cl/index.php?album=PABELLON_FAV
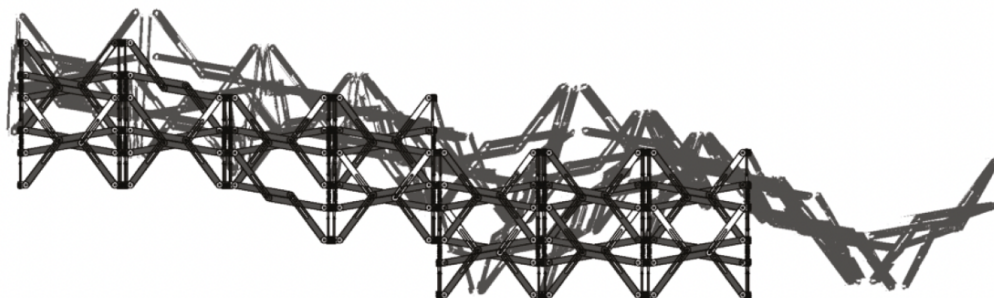

Fig. 5. Constant Nieuwenhuys (1961). *New Babylon*.

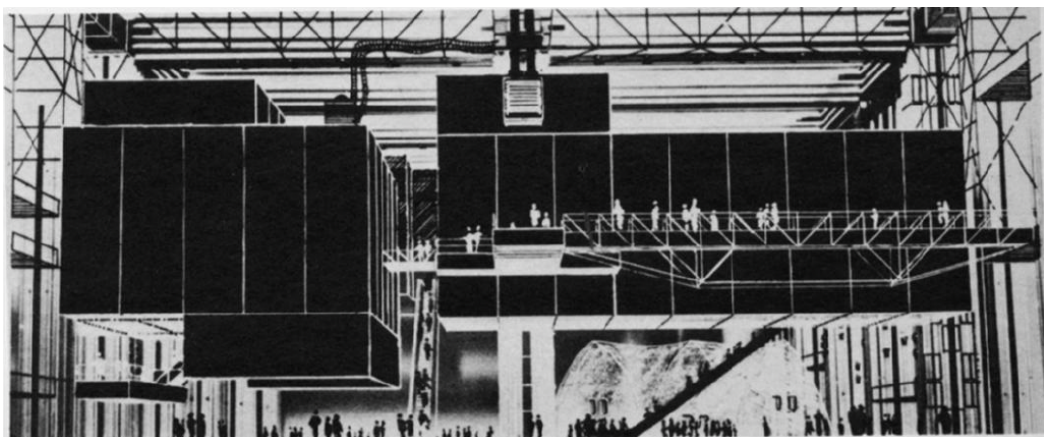Fig. 6. Daniel Rosenberg (2009). *Designing for Uncertainty*.

Fig. 7. Cedric Price & Joan Littlewood (1964). *Fun Palace.*

Method of Approaching The Topic

In the first part of my research, I want to use the philosophy of Deleuze & Guattari, which gives a theoretical background about dissolvement of conventional (architectural) practices (Ballentyne, A. 2007). Deleuze's & Guattari's 'body without organs', as a concept without an imposed organization and without preconceptions from outside, is aimed to be linked to other authors. Cedric Price's theoretical framework is used since his ideas of architecture are placed in a new perspective. His ideas were also based on creating architectural processes, rather than static end-results. Also, other writers, who theorized Price's work are being used, such as Arata Isozaki, to fully grasps his theories.

The theoretical framework explains what a certain design approach implies, but also shows what possible disadvantages or weaknesses would be. The technical part applies the theory in a 'physical' manner, where different configurations, prototypes or models are being tested. During the first part of the research, literature and correlational research is emphasized, with the use of built and unbuilt case studies. Fun Palace, and many other projects of Cedric Price, are case studies where different needs and activities were accommodated within a flexible framework. The Fun Palace was a collaboration between cybernetician Gordon Pask and Price, resulting in a building that functions as a self-regulation machine, that could accommodate different needs and activities using cybernetics. Cybernetics was used to think within systems and create an indeterminate program that was made possible by high-tech machinery, a flexible façade, movable panels etc (Herdt, T. 2021). I want to investigate the notion of cybernetics in architecture ''as a compilation of active systems, in contrast to the perception of a building as simply a static material object, where the engagement of the human is, most critically, lost'' (Pask, G. 1969. p.1). Another author who touches upon versatile systems rather than spotless compositions, is Manuel Gausa in *From Objectual Design towards Relational Design* (2015).

Besides that, I think that the point of view of the primary users of the building (in this case event-organizers, musicians, concert go-ers) is very important to establish a design which is open for interpretation. This is needed to establish what ranges of possibilities are needed within the design. After diving into this theoretical framework part, more authors regarding uncertain design will come up and will be used. Ideas about authors that I have not closely looked at, but I might want to use are Peter Cook's *Archigram* and Constant Nieuwenhuys' *New Babylon.* Therefore, the current bibliography is a work-in-progress and not fully completed.

The second part of the research provides a technical insight in establishing uncertainty in design, which applies the theoretical part. How can certain architectural elements become interchangeable and how can a flexible framework be created? In terms of a music venue, what should be able to change? Maybe not the whole building has to change but only parts of it. The aim is that there is a range of (spatial) configurations and possibilities that can be used in the design process of Music Marvel. Therefore, different models and prototypes are tested. A proposed author is Daniel Rosenberg who touches upon the design for uncertainty. He proposes structures that are intertwined and can be modified, according to the needs of a specific event (Rosenberg, D. 2009). Rosenberg speaks of the two main chapters: *Design for uncertainty* and the *Materializing uncertainty*. In this research, kinetic architecture and transformable structures is used to address the technical domain of indeterminacy. These proportion-based systems or structures are bound to certain limits, in terms of dimensions. Therefore, it is necessary to determine a range of possibilities. Another author that will be studied for this part of the research is William Zuk, which uses kinetic architecture as construct to unfreeze architecture ''… to make it a fluid, vibrating and changeable backdrop for changing modes of life'' (Zuk, W *et* al. 1970. p.1). What are the limits of the individual components to still make it probable for use on a building scale? As Rosenberg states it, what are the range of possibilities? This part of the research is more focused towards a simulation and experimental research approach, as different models are being tested.
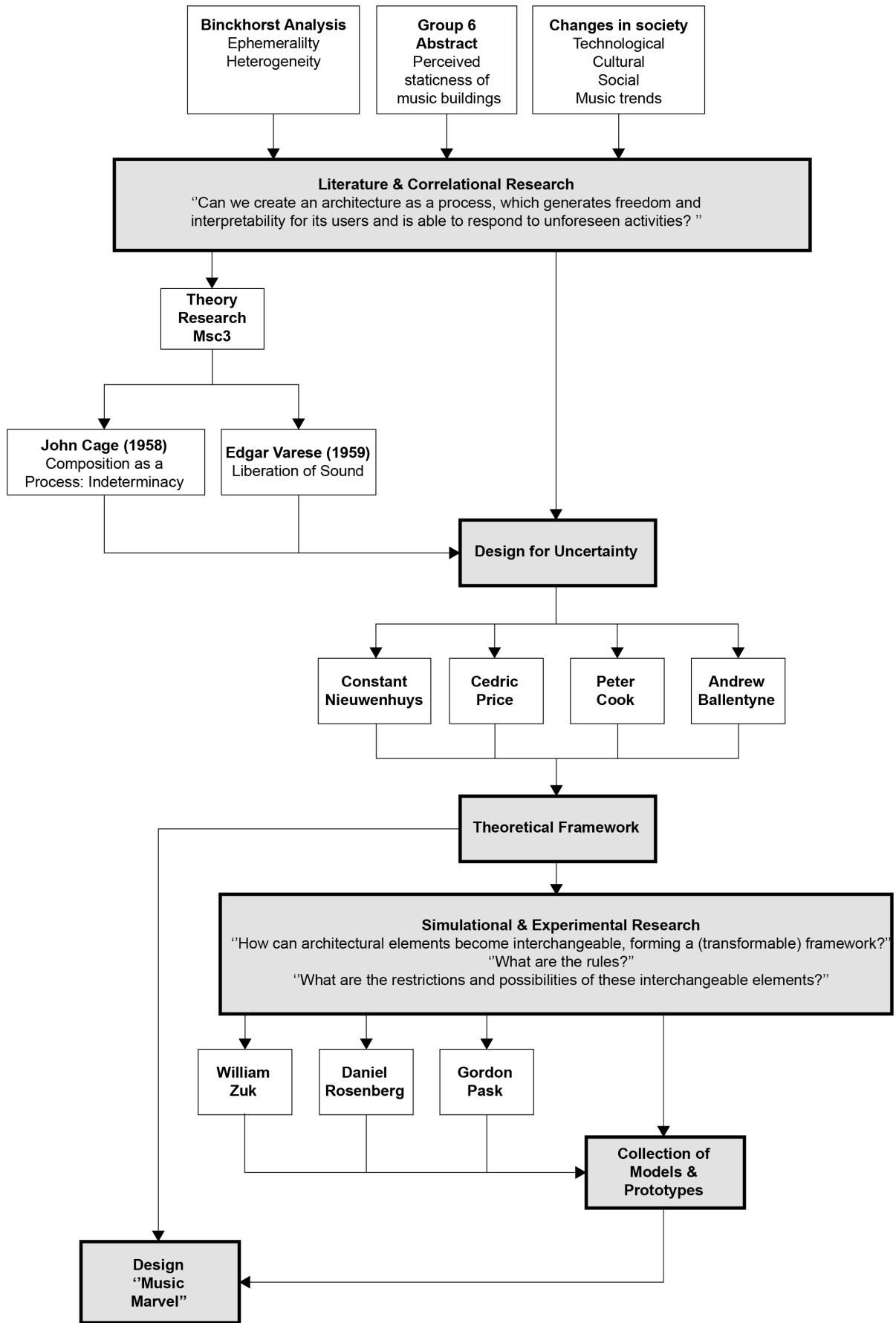
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│  Binckhorst Analysis │  │      Group 6         │  │  Changes in society  │
│     Ephemeralilty    │  │      Abstract        │  │     Technological    │
│     Heterogeneity    │  │     Perceived        │  │       Cultural       │
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Literature & Correlational Research
''Can we create an architecture as a process, which generates freedom and interpretability for its users and is able to respond to unforeseen activities? ''

Theory Research Msc3

John Cage (1958)
Composition as a Process: Indeterminacy

Edgar Varese (1959)
Liberation of Sound

Design for Uncertainty

| **Constant Nieuwenhuys** | **Cedric Price** | **Peter Cook** | **Andrew Ballentyne** |

Theoretical Framework

Simulational & Experimental Research
''How can architectural elements become interchangeable, forming a (transformable) framework?''
''What are the rules?''
''What are the restrictions and possibilities of these interchangeable elements?''

| **William Zuk** | **Daniel Rosenberg** | **Gordon Pask** |

Collection of Models & Prototypes

Design ''Music Marvel''

Fig. 7. Diagram of research strategy. Author's own drawing

Contribution and Aim

Society is subjected to constant socio-cultural changes throughout time. Within the built environment, we see a shift going on towards more flexible spaces. This is the most apparent nowadays in residential, office or educational buildings, in which a classroom, office or living space is designed where different configurations are made possible. The approach for the Music Marvel is to take these notions to the next step, so that the building can respond to the notion of time. Especially with a music building, because trends in music shift constantly. Besides that, the arrangements of performances (seated or standing, amounts of people, stage configurations, lightning, audio) also change constantly, and a building that host these functions should withstand the changes. The building becomes resilient for uncertainty and unforeseen activities, since uncertainty is not sufficiently considered into today's architecture and planning, since municipalities tend to predict future plans as something that is fixed in time.

The project becomes a process, rather than an end-result, which means that it can be interpretated differently by the users of the building, creating a unique experience for every event. The heterogeneous environment of the Binckhorst, reflected in its various (sub)cultures, programs and appearances, is pursued to be represented in the Music Marvel. This means that it can accommodate various cultural needs and demands. The first part of the research will dive into the theoretical framework regarding new perspectives on uncertainty in design. This is supported by case studies. The second part will go into the technical domain of indeterminacy in architecture, to establish a design that responds to uncertainty. The aim is that there is a range of (spatial) configurations and interchangeable architectural elements that can be used in the design process of Music Marvel.

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