

Metamorphoses
Rome Concrete Poetry Hall

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ARCH 686: Competitions Elective



Introduction

Rome Concrete Poetry Hall

The Metamorphoses project, submitted for the Bee Breeders International architecture competition organization, offers a poetic interpretation of concrete through the lens of an architectural project in the city of Rome. Utilizing strategies of form, space, void, light and sequencing, the interplay between these aspects, the concrete material, and the essence of the city are brought together in an unfolding, poetic story. The entire experience of the proposal hinges on the reading of this singular material through varying interactions and architectonic moves which at the same time reflects a deep past of material development and practice, a deep connection between the material and its sited city, as well as explores a contemporary and even futuristic use of the material in form and structure.

Completed for the Rome Concrete Poetry Hall competition, the project satisfies the loosely defined program of a building for the exhibition and performance of poetry within the historic city of Rome. Typologically, the architecture of a poetry hall is ill defined and open to a vast interpretation on spatial requirements and practical use. With this open program, the driving forces behind the building design, and thus the source of precedent in it's development, initially came instead from explorations within two leading factors with rich history, the site and the material.

This essay looks at the city of Rome and the material concrete as the major source of precedents influencing the design of the Poetry Hall, examining individual histories within each, as well as their convergences in the built structures in the city of Rome. As a result, the argument is that the conceptual ideas that make the exploration of typology and precedent within the architectural design process a worthwhile endeavor can be derived and distilled from elements outside architectural type.

Site as Design Influence

The site for this building proposal is Piazza Galeno, located north of the historic city walls along Viale Regina Margherita. The piazza itself is a convergence of several major streets and tramlines around a traffic circle with tram stops resulting in busy hub of motor, transit, and pedestrian traffic [Figure 02]. The piazza, however, lacks any major public building or destination in itself, a sort of neglected void in the midst of culturally rich area.

The city has a spotty history of maintenance and revelation



[Figure 01] *Descent from the Cafe*



[Figure 02] *Piazza Galeno Site*

of ancient monuments and icons of its artistic history, with shifting national and municipal governments' focus on the cultural history of the city as an important resource. The historic fabric of the city has a history of immense alteration and destruction, specifically under the administration of Mussolini^[01]. With the turn of the millennium, the city and nation shifted its ideals and reversed these long term trends, with major collections of art being placed on display, further excavations within the ancient forum resulting in a vast archaeological park in the centre of the city, and the opening of historic monuments to the public^[02]. These efforts result in a global identity of Rome as a cultural and artistic hub, a destination for the arts. The *Metamorphoses* project was influenced by this identity, striving to add to this rich network through a new interpretation of art culture in architecture.

One building that does stand out as significant within Piazza Galeno is the Villino Ximenes to the north of the site. Constructed by Ettore Ximenes, a sculptor known for his monuments celebrating national heroes, the house was made to showcase the sculptor's predilection for the use of symbology to represent ideas in his work^[03]. Most notably, the frieze that runs along the full front façade of the building depicts a complex scene of individuals from many historical generations paying tribute to the "alter to the arts"^[04] [Figure 04].

In a sense, our approach to the project looks to offer a similar tribute as depicted in the sculptor's work. Expanding the view of the site to urban scale, Piazza Galeno sits itself within the rich network of cultural sites and museums in the city of Rome. The major tramline running through the site, Line 3, is known as an unofficial tour of Roman sites [Figure 05]. The line, which almost encircles the historic city, contains many notable stops at cultural and historic sites such as the Pyramid of Cestius, Circus Maximus, the Colosseum, and the Galleria Nazionale D'Arte Moderna^[04]. With this physical connection to a rich network of cultural history, our proposal for the project drew from these iconic sites, looking to pay tribute to and become part of Rome's artistic heritage and identity. In this consideration, the project was ultimately defined as a place for artistic expression to unfold and spontaneously occur, with the exploration of poetry being the leading influence. Thus, the buildings program focuses on an unfolding sequence of open and adaptable spaces, ranging in scale, to house a varying range of artistic expression.

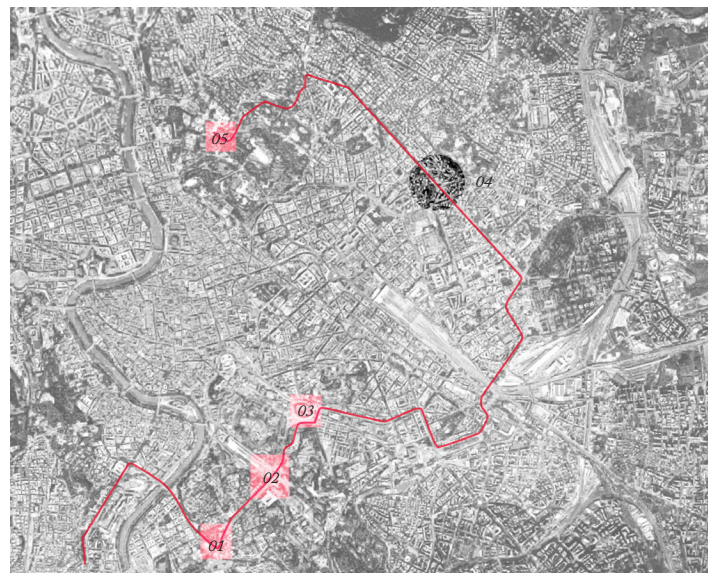
While the general history of the arts within the city of Rome offers a deep reasoning behind the development of this project, and the vast network of historic museums and



[Figure 03] Galleria Nazionale D'Arte Moderna, Rome



[Figure 04] Frieze of the Villino Ximenes



[Figure 05] Map of Tram Line 3

- 01. Pyramid of Cestius
- 02. Circus Maximus
- 03. Colosseum
- 04. Piazza Galeno - National Poetry Hall
- 05. Galleria Nazionale d'Arte Moderna

monuments established an identity and culture for the city with which to resonate, a specific artistic precedent became a major influence in the actual design of the building. This influence, and the namesake of the proposal, came from the *Metamorphoses* by Roman poet Ovid. The *Metamorphoses* is a series of mythic poems chronicling the history of the world through to the deification of Julius Caesar. These poems revolve around the theme of metamorphosis, the transformation from one thing to another, both within the storied narrative and metatextually through grammatical and narratorial transformations.

This theme of metamorphosis is similarly taken from Ovid's work both literally and metaphorically. Architectonic moments within the project exemplify the material transformation in the creation of concrete with landscaping showcasing a transition from aggregate material to solid concrete forms [Figure 05]. The overall sequence of the building construction also utilizes the theme of transformation, as varying pours and curing sequences with different gradations of colour meld together to showcase the sequential building method in the final product of the design as a strata of layers in the project.

The project also draws influence from the *Metamorphoses* in the experience of the building. The design of the program and spaces within the project creates a sequential experience through which the building is witnessed. From the street, the program is arranged as an unfolding story, a transition from the intimate and light to the monumental and dark. The overall experience of the building is intended to evoke a sense a transformation and change from beginning to end.

Outside of the artistic precedent derived from the city's cultural history, Rome's ancient architecture and urban fabric offers other defining architectonic ideas that provided influence for the project design. Investigating historic sites that have been revealed through series of excavations throughout the city reveals that Rome is an extremely layered city, with much more potentially buried below the existing city. It is seen in sites such as the Forum and Nero's *Domus Aurea* (Golden House) [Figure 08], where the descent into the earth leads to the discovery of new histories. The history of the city is revealed through its layers; as emperors and politics changed through the years, as the city grew and transformed itself, traces of each epoch were left, a gradation of the history of Rome to be revealed

Referencing this deeply layered ancient city, which now sits well below the current street level of Rome, our proposal similarly occupies the earth as a subterranean chasm carved into the land to reveal the ancient chaos that formed the



[Figure 06] Detail of Street Level Plan



[Figure 07] The Multilayered Roman Forum



[Figure 08] Inside Nero's Underground Domus Aurea

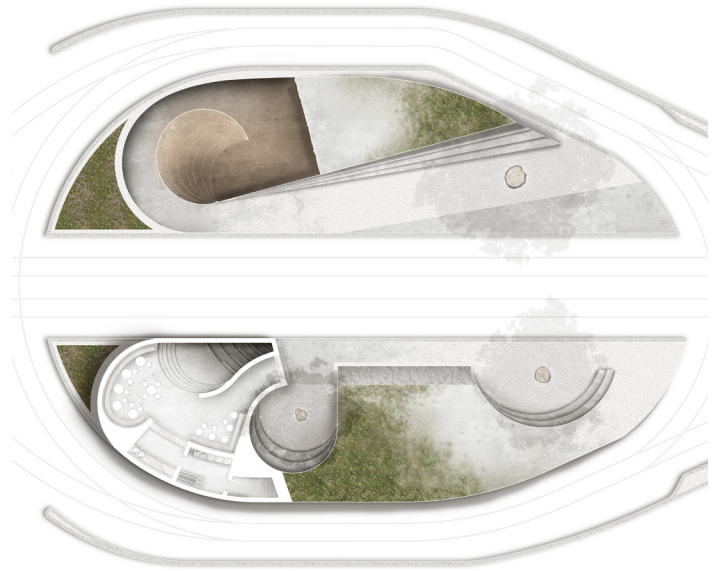
historic city. The project's circulation is modeled around a slow descent from the street level to the monumental poetry hall at the project's base. This descent is imagined as journey, a discovery of spaces and moments along the way, experienced through a conscious descent into the historic ground of the city of Rome. The journey transitions itself through the layered construction process of the building, as subtle gradations in colour mark the gradual pours and cures of the concrete formations. What's left on the surface at street level is a series of forms of concrete arise subtly from the earth leaving eroded scars in the landscape through which the building is accessed, a mirroring of the excavation cuts marred in the surface of Rome [Figure 09].

While the city of Rome offers an endless catalogue of architectural precedent spanning millennia, and a vast diversity of cultural sites; museums, galleries and halls, this project strives to neglect a physically typological influence from its surroundings. As the program of the project strays away from and specific architectural typology and is more open to interpretation, the goal is instead to derive an experiential precedent from evocative and experientially rich city that is Rome, turning our investigations of cultural sites and historic excavation into a programmatic sequence through the amorphous building.

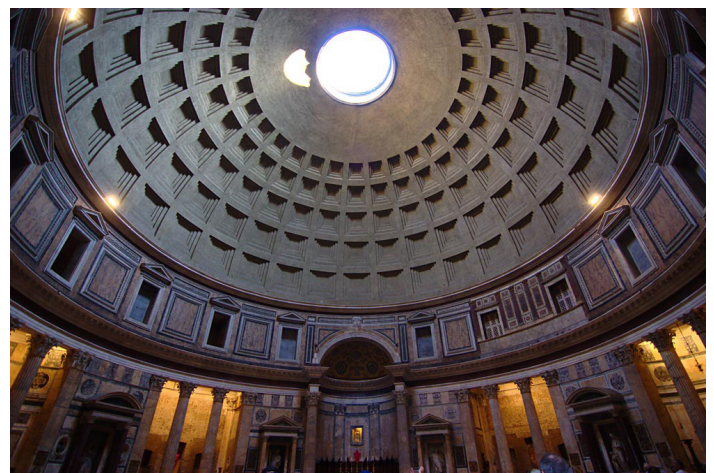
The result is a conceptual program loosely based on a poetic story, an unfolding sequence of spaces experienced by the visitors, continuously able to be changed depending on the varying artistic interpretations that have the potential to occupy the building. This experience culminates in a slow descent into the Roman underground, slowly revealing the monolithic main hall that sits at its lowest level.

Material as Design Influence

Rome has an extremely rich history with concrete. While the use of concrete appears as early as the Egyptian pyramids in Giza, with porous limestone-based cast stone, it was the Romans who developed the fundamentals of the material we use today [05]. Roman concrete was based on lime as the binder, mixed with pozzolanic additives from volcanic ash, and aggregate such as broken stones, brick and rubble to provide a homogenous material that could set by chemical reaction. This use of volcanic ash, which bears similar qualities to modern Portland cement based concrete with furnace slag or fly ash, was the key to the success of Roman concrete, allowing for a higher tensile strength as well as its ability to retain water, resulting in its use in the many aqueducts and cisterns that defined Roman infrastructure [06].



[Figure 09] Street Level Plan



[Figure 10] Concrete Dome of the Pantheon

With this deep connection between the history of the material and the site of the project, the goal of our proposal was to use concrete as a driving force in the physical design, to push the modern use of the material while also exploring its fundamental characteristics, the basic process of working with material, and the varying components that make up the material.

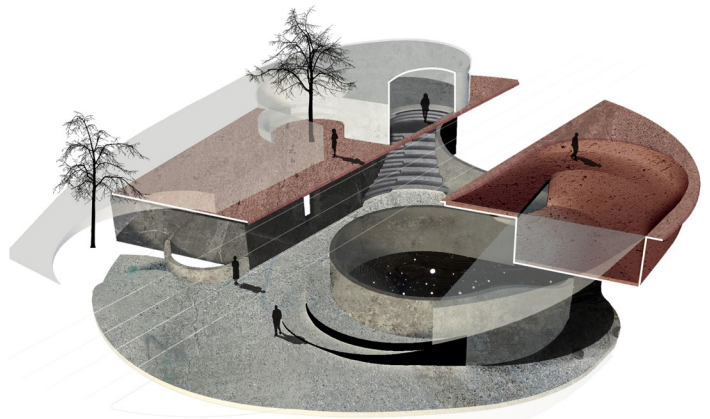
A major design driver for our project was the ability for concrete to be used to construct massive, monolithic forms with a monolithic assembly to create a continuous building, unbroken by details and other material. This was possibility with the diversity of use of concrete as building material, the ability for it to act as both structure and finished surface. As the design intent was to create a continuous sequence, carved into the ground plane and extending down, we wanted to create a cavern-like space throughout the project. The monumentality of the concrete material as a substitute for the carved earth allowed a continuous surface to run through the project that would seemingly coat the excavated earth, as if the whole building were created by simply removing earth to reveal the void. Taking precedent from Ryue Nishizawa's Teshima Art Museum [Figure 11], we explored the ability for a concrete to create a continuous form that acts as wall, ceiling, and ground as one monolithic assemblage. While the design developed to include broken off spaces for functional reasons, the major spaces within the Poetry Hall stay true to this idea of continuity, as the ground plane from street level to the bottom level theatre forms a continuous subtle slope downward into the earth.

Another characteristic of the material we explored to influence the design of our proposal was the process of forming, casting and pouring concrete. As a basis, the rudimentary steps for creating a concrete structure is to utilize various formwork to create a negative of the desired structure, which is then procedurally filled with concrete in viscous state and left to dry and cure over a period of time. The formwork is then removed, leaving the positive form of cast concrete [07]. On a larger scale, the act of building with concrete repeats this process in a layered strategy, building from the bottom up.

In our design, we drew parallels between the method of using concrete and the layered strata that defines the many histories in the city of Rome, resulting in the desire to reveal this process in the final product of the building. As such, our proposal uses a gradation of colour in the concrete mixture, changing with each sequential pour and cure. The result is an apparent layering, akin to a sedimentary formation of rock surface – a strata of time cast in concrete [Figure 12].



[Figure 11] Teshima Art Museum by Ryue Nishizawa



[Figure 12] Metamorphoses Project Axo

In the formal explorations of the design, it became apparent that a typical rigid formwork would not suffice to create the continuous and smoothly sweeping forms that we wished to create. Turning towards contemporary exploration in the potentials of concrete as a material, we looked to the work of Mark West and The Centre for Architectural Structures and Technology (C.A.S.T) for precedent in creating the formal expressions of the project. West's work in fabric formed concrete is a turning point in the use of the material. With the ability to create exciting new forms, as well as a material efficiency of up to 40% less concrete than prismatic forms when fully optimized, the development of this method offers a strong future for this ancient material ^[08]. Using this work as precedent, we were able to realize in our design an unending potential for the formal expressions and the structure of our proposal to work together as one monolithic and efficient material system.

Another influence drawn from the material itself was its material composition. Given basis of concrete as a natural material, harvest from the earth in the form of rock aggregate, we wished to draw a parallel between the excavated earth and the aggregate used in the material. In the design, as the material reaches the street surface and becomes exposed, concrete degrades to gravel landscaping through varying stages of large and exposed aggregate concrete *[Figure 14]*. Combined with the rough formed surfaces that appear throughout the project, the strategy looks to connect the monolithic material back to its natural roots as a harvested rock material. This also works to further influence the reading of the material as the carved surface of the excavated ground.

As a major component of the competition requirements, the use of concrete became a driving factor of many of the physical design decisions. Concrete became an ideal material to feed of the conceptual aspirations of the projects design, showcasing the artistic interpretation of poetry within Rome. Fluctuating between the initial conceptual ideas and practical knowledge of the material and its use was a crucial in developing the resultant design, as the two seemingly fed off each other adding an experiential depth to the project.

Typology Within Site and Material

Typology within the realm of architecture in general is commonly defined by the characteristics in form and function, mostly in the physical sense, of a specific building type or program, exemplified by iteration in examining multiple similar buildings. Within this competition, however, the specific functions of the building as well as the main programmatic role of the project are left open



[Figure 13] Mark West, Fabric Formed Cast Models



[Figure 14] Varying Aggregate Surfaces at Scarpa's Castelvecchio

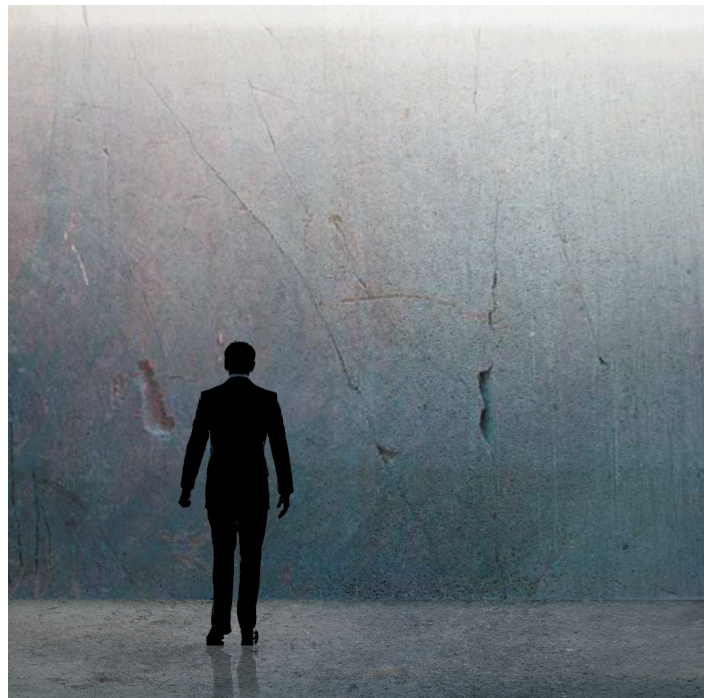
to interpretation. Upon interpreting the brief, the sole requirement of the project was to house a space for poetics.

Upon investigation, very little architectural precedent for a poetry hall exists and to consider a building type that would be suitable for the ideas of the competition would yield limiting results of influence. Varying similar building types could have been explored and amalgamated to piece together a project that could potentially fulfill the requirements of the project, but such an approach would lack the conceptual depth that comes at the root of every building type. As Aldo Rossi discusses in the *Architecture of the City*, architectural type is the “logical principle that’s prior to form that constitutes it”^[09]. As such, type is the study of elements with architecture that cannot be further reduced and are entirely fundamental. With this under consideration, to explore building type outside of the intended program to piece together a program would miss the crucial essence that is at the root of what a “poetry hall” may be.

As such, and as clearly defined in the writings above, our approach to this project was to respond and draw influence from the elements of the project brief that were fundamentally at the root of the building concept, the poetry, the city, and the material.

While specific form and moments within our design proposal can be connected to varying architectural precedents, the holistic concept of the overall project at its most refined state, the essence of the building as Rossi would suggest, cannot be easily connected to a past architectural precedent. This is not to argue that the concept of our proposal is entirely new and unique, as the approach I’m sure can be exemplified with other works of architecture. The point is to state that in terms of examining the process of design development for a project such as this, the role that type takes within that process does not necessarily apply in a regular sense, the essence of a poetry hall is not easily readable from architectural precedent.

The idea of what the poetry hall was to become had to be developed and extracted from elsewhere. I think that this is one of the core values of the architectural profession, the ability to draw from sources outside itself to produce a sense of cultural resonance within the work produced. To approach this project as piece of poetry that connects a specific city and a material at a highly conceptual level, I believe, resulted in an architecture that speaks to the essence of what the competition brief had outlined. If the role of type within architecture is to define this essence and be able to read it across multiple iterations of a building program, then to define this essence through alternative forms of precedent



[Figure 15/16] *Vignettes, Encounters Within the Project*

accomplishes the same role of examining an architectural type.

It is clear that examining other works of architecture as a precedent is crucial in developing a building design, as we have used several examples to influence design decisions in our process. I think, however, what is ultimately distilled from examining the precedent is what becomes the most productive in using the precedent; to reduce the example down to its fundamental roots and explore the conceptual ideas that have brought that specific work to fruition, and respond directly to the work on the conceptual level is what assures a sense of resonance between projects, not a simple replication of formal moves and programmatic layout.

This is a difficult idea to read on the surface of a project, even with an in depth reading it could be hard to distill or have clear indication that you have reached that point of conceptual understanding in the work. I believe it is more of an unconscious resonance that fuels the design process, an inherent understanding that comes about by exploring works of the past. It is only at the end of an iteration that one can step back to notice the value of these conceptual connection across a building type, it an in-the-moment action that is difficult to define as it occurs.

Only looking back upon your own design process can these realizations and connections be made, and their impact truly be seen. Thus, resonance between projects is a continually retrospective thing. Its not a matter of whether we care to admit the influence of past works on our, it's a matter of it not even being able to be seen until the end of a project. It is this thought that brings importance to exploration of type and precedent in the architectural design process, to open oneself up to these explorations, to resonate with the fundamental concepts at the route of others design ideas, and to unconsciously respond within our own work, that is the resonance between architectural work that carries across cultures and generations.



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Endnotes

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