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Diplomarbeit

Commedia
An interdisciplinary approach to architecture through the specific
case of a museum for Dante Alighieri's Divine Comedy

ausgefürht zum Zwecke der Erlangung des akademischen Grades eines
Diplom-Ingenieurs / Diplom-Ingenieurin unter der Leitung

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Abstract Deutsch

Commedia
Ein interdisziplinärer Ansatz zur Architektur am spezifischen Beispiel eines Museums von Dante Alighieris *Divina Commedia*.

Das Ziel ist die Verbindung zwischen Theorie und Praxis zu untersuchen, wodurch die Architektur als interdisziplinäres Fach bereichert werden kann.

Das Projekt untersucht die Möglichkeit die Analogie zwischen der Architektur und deren „Schwester Künste" wie die Literatur, Philosophie, Semiotik und Soziologie zu untersuchen.

Dante Alighieris *Göttliche Komödie* ist eine der bedeutendsten literarische Werke, die auch den Grundstein der schriftlichen italienischen Sprache gelegt hat. Das Werk stellt eine allegorische Reise des Autors durch das Jenseits dar. Die Komplexität der *Komödie* und die Darstellung der mittelalterlichen Gesellschaft, wie auch die Darlegung des menschlichen Befindens in einem individuellen und universellen Aspekt ist eindrucksvoll. Die Feingliedrigkeit der vielen Elementen der Dichtung und die vielfältige Interpretationsmöglichkeiten die es bietet, ermöglicht eine geeignete Grundlage für meine Untersuchung von Architektur im theoretischen und praktischen Sinn. Das Werk ist mehr als 700 Jahre alt, aber deren Struktur transzendiert die Zeit und ist noch heute relevant. Eine gegenwärtige Analyse des Werkes kann neue Bedeutungen und Interpretationen generieren, die uns und unsere Gesellschaft bereichert: ein Dialog zwischen den Gezeiten und deren Kulturen.

Die physische Darstellung der *Göttlichen Komödie* und die Verbindung zwischen deren unterschiedlichen Konzepten wird durch ein Museum in Architektur umgewandelt. Ein Museum ist der Öffentlichkeit zugeordnet und interagiert mit den Publikum durch Raum und Inhalt und beginnt einen Dialog und Austausch zwischen Architektur und Gesellschaft.

Der Entwurf eines Museums für die *Göttliche Komödie* stammt von der literarischen Architektur, die auch gestützt wird von der Philosophie, Semiotik, Soziologie und anderen.

Die Übersetzung von Literatur in Raum und Form ist das Konzept des Entwurfes. Der Schwerpunkt liegt in der räumlichen Wahrnehmung des Nutzers und deren Interpretationen und Empfindungen.

Abstract English

Commedia
An interdisciplinary approach to architecture through the specific case of a museum of Dante Alighieri's *Divine Comedy*.

The goal is to research the bond between theory and practice in order to create a lens through which architecture, seen as an interdisciplinary subject, can become richer.

The project contemplates the imaginative possibilities of the analogy between architecture and some of its sister arts such as literature, philosophy, semiotics and sociology.

Dante Alighieri's *Divine Comedy* is one of the world's most prominent works of literature and established the basis of the standardized Italian language.

The work depicts an allegoric journey of the author through the afterworld and is impressive in its complexity and the depiction of the medieval society and human condition in an individual and universal aspect. The intricacy of the many elements of the poem and the many interpretations that it offers, lay a suitable ground for my research of architecture in its theoretical and practical aspect. The poem is more than 700 years old but its structure transcends time and is still very present, a contemporary perspective and approach may generate new meanings to the work, to ourselves and our society: a dialog between cultures.

The physical representation of the *Divine Comedy* and the connection of its different concepts is translated in architecture through a museum, as it is a building open to the public and interacts with it through its spaces and contents. A museum creates a dialog and exchange between the architecture and its user, in a broader view: between architecture and society.

The design for the museum of the *Divine Comedy* derives from literary architecture, sustained by fields like philosophy, semiotics, sociology and others.

The translation of words into spaces and shapes is the concept of the architectural design, the basic elements are put in relation with each other with the aim to avoid any literal translation. The focus lies in the perception of space and how it affects us and how we sense it through countless interpretations.

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Introduction

The subject of the diploma was chosen as the culmination of my studies, along which I tried and studied architecture in the breadth that characterizes the discipline. This led me to find myself constantly looking for a personal approach, which is not limited to a specialization in one direction, but guided me to an interdisciplinary research also given by my many interests. The importance that the subject of architecture covers is not measurable, it goes hand in hand with the development of the human being and of civilization, it is a fundamental part of it. Man and the space in which he lives are like one entity, so we can say that architecture is part of the human condition. This means that it is a discipline that presents a great complexity, as a mirror of the complexity of life. For this reason it is difficult to grasp its extension, since there are infinite confluent elements and just as many keys of reading. I believe that there is no absolute right or wrong in architecture, but an approach, that must be the result of an awareness acquired through study. The more extensive the study and the more complete will the accordingly created big picture be. A tangential, or interdisciplinary reading can help to give a more complete and coherent big picture, which proposes a confluence of different knowledge and takes into account many elements. My research is therefore to look for the interface where the great potential of combining architecture with other disciplines is realized. The attempt is to avoid infertility and try to build a narrative that at best creates a harmony between content and form.

In this specific case it is a research of method in the interconnection between architecture and literature, the interlacing of two disciplines of a complex nature. This writing aspires to be a profound reflection of the nature of concept and idea and of its manifestation into form. The work is mainly theoretical, as it is a representation of an approach; but since I find the practical application just as important, I have also designed a project developed to the point that it is plausible.

The theme is introduced in the first chapter with the investigation of the meaning of concept and its use and relevance in particular in architecture; starting from the general definition of concept and then arriving at the structure and its application in architecture.

The second chapter presents the combination of literature and architecture, explaining the plausibility of the analogy between the two disciplines and the potential of the result of the combination of the two.

However, at the moment there is not much material regarding literary architecture, it is a neglected subject. There is a book by the American author Ellen Eve Frank entitled *Literary Architecture, Essays towards a tradition* which deals, through the analysis of four different authors representative of the English literary tradition, with the legitimacy of using architecture as an analogy of literature. My attempt is to experiment the reverse process and get to use literature as a concept.

The third chapter therefore exemplifies my position through the choice of a literary work as a concept. In this specific case I chose the *Divine Comedy* by the Italian poet Dante Alighieri. The choice of the work comes from a personal preference and attachment; as well as the relevance, influence and worldwide popularity of the poem that are due to an incredible mastery of form and transcendent content.

The fourth and last chapter presents the *Progetto Commedia*; the practical example of the design of a museum, which springs from the transmutation in physical form of the work of the *Divine Comedy*. The museum is not like commonly conceived as a white box, a neutral environment whose attraction and art are mainly in the exhibitions, but as a synergy between art and architecture that creates a narrative and experience of the whole. I state that the project, not being real, has no limitations of any kind with regard to technical and economic regulations, but this does not compromise its plausibility, as it is a flexible approach that can be ideally adapted to any concrete situation.

In conclusion, the making of architecture is a matter not to be taken lightly, it is a big responsibility because of the fact that it has a lasting effect on the world and all that it implies. The functional needs and the social, political and economic pressures unfortunately limit the profession, the role and the importance of the figure of the architect are not clear and are conceived in an extremely superficial way. There is a heavy lack of contemplation and critical thinking, simply dismissed as a useless theory belonging only to an intellectual dimension detached from practice. Therefore, the un-tangible dimension of architecture is today unfortunately tragically neglected since thought is not a priority and can not be monetised, the absence of this creates a heavy lack of awareness. This involves architecture without a soul and therefore a sterile and narrative-free environment, which then also reflects on our life and legacy. This diploma is an attempt to gain awareness and responsibility towards the profession and its value, a search for a personal critical thought through the development of an alternative method.

Concept and architecture

I. What is a concept? Meaning of the word concept in general and in regards to architecture

This thesis is a reflective point of view and an approach to architecture, with an in-depth insight on the making of architecture.

One of the fascinating aspects of architecture is its broad spectrum and interlacing of fields, that connotes it as something where there are countless possibilities and there is mostly no determinate right or wrong but a discipline that is a matter of stance. Almost every aspect of architecture can be debated and become a philosophical topic, with questions that shift through time and have ever changing answers but are constant in their presence since architecture belongs to the essence of the relationship between humans and nature.

One recurring topic that is very present in the everyday life of an architect is the term of concept. It has always been one of the cornerstones throughout my studies of architecture and since it was so very present it has become something I have given for granted without elaborating its meaning thoroughly.

> Concept: from Latin *conceptus* (a thought, purpose, also a conceiving...), from concipio (to take), from *con-* (together) + *capio* (to take).

The meaning of the word is very broad and is used in numerous fields and contexts. Simply and informally explained, the word concept just means a thought or any idea - something that is conceived from the intellect, which is an object or product of thought. Logical notion of the essential characters of an object. Some other meanings include: an abstract idea, a plan or intention, a principle, an idea or invention to help sell or publicize a commodity, ...[1]

Concept in architecture takes on many roles in my opinion and for that reason there is more than one meaning to take into account when referring the relation of the two. Breaking down the meaning of the word, from the general notion of an abstract idea into ways we most often use it, we can find the following interpretations that most interest me in the context of the architectural discourse: a. Theory of mind and thought; b. Driving force of work or intention; c. Wording and abstraction.

a. Theory of mind and thought

The first one refers to the philosophical question of what a concept is. The true meaning of concept has been debated in the field of philosophy at least ever since Socrates and Aristoteles and has evolved during the centuries with many interpretations. The controversial aspect of it can be in my opinion due to the fact that the term and what it represents are universal, which means they belong to all of us for the understanding of the world (whether or not this applies only to the human race is not clear and debatable[2]) but at the same time it is a subjective matter for we cannot "see" concepts because they are constituent of thoughts. The nature of concepts is controversial therefore, there exist many different schools of thought and within them five main issues: ontology of concept, structure of concepts, empiricism and nativism, concepts and natural language, concepts and conceptual analysis.[3]

Some of these issues will be relevant to my argument in the connection of architecture and concept and I will address them later, I will however try to give a concise definition of what a concept is with my goal of its application in other fields such as architecture in mind.

Concept, in a broader sense, is an abstract and general idea that is expressed in a defined way through a procedure that gathers and aggregates specific aspects that a multiplicity of objects has in common; a logical connection between objects. Through concepts, essential and constant characters of a specific reality can be clear and structured in the mind. These substantial aspects will be present in the mind through concepts that will be able to recognize, without needing additional information, all those objects that have the entirety of those same particular characteristics. The subject creates a personal abstract representation of the perceived objects, it is a tool for understanding and processing what is around us, building blocks of our thinking, structure of the mind. The term concept can also be used, with an extended meaning, to all mental representations. In cognitive science and philosophy of the mind, a concept is an abstract idea or a mental symbol, typically associated with a corresponding representation in language or semiology.

b. Driving force of work or intention

The second interpretation refers to concept as a framework for abstract and/or concrete design, a working drive, a plan or an intention. The difference with the philosophical interpretation is that the concept is not just a thought but a tool that is the keystone of an activity with a result. Its meaning is close to that of metadesign[4] from *Andries Van Onck*; namely

the design activity of theoretical nature that synthetises a design from the analytical phase to a conceptual phase, potentially ready for the executive phase. In this case the term basically stands for a working method also often used in architecture and design, that can remain in the abstract realm or move to the concrete one.

c. Wording and abstraction

In the third case, where a concept is wording and abstraction and has an explicative role, languaging plays an important role. It often refers to an idea or intention to help sell or publicize a commodity, the term is mostly associated to the business field and it represents the abstraction of what is organized around a main idea or theme; a marketing tool. For example, a concept car and a concept album are not the object or physical product itself but the focus lies in the idea behind it. Concept as a tool for selling an idea is also widely used in architecture and it is not necessarily connected to the essence of the project or the planning of a project. It is there to sell, it has to be an impactful slogan where the idea needs to get across and make the work understandable and possibly likeable. Personally, I believe that adding the word concept before an object makes it look like something more intellectual; the abstraction factor elevates it.

What I picture as the use of a concept in the making of architecture is a combination of these different interpretations. A touching point between mind, thought and physical world; like a mathematical union of sets where the outcome I am looking for is the cut surface that results from the point they meet. To sum it up, the use of concept in architecture is not restricted to the abstract realm of thoughts, mind and wording only but is also concrete in its use as a tool and working method; the meaning of concept in architecture lies in the combination of the above-mentioned explanations.
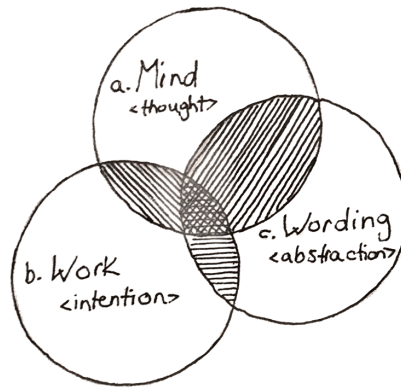
Image 1: Union of Mind - Work- Wording sets diagram

II. How is a concept structured? The structure of a concept through an analogy with linguistics and its definition as a semantic field

To understand the union of mind-work-wording, I will dive into the similarities between language and thought that gives a more intuitive explanation to this complex structure.

What all of the meanings (abstract and concrete) have in common are the words structure and organization, a concept is not just any idea but the constituent field of it, a field of logical connections that plays part in the use of reason and/or language. Inspired by the "The Language of Thought Hypothesis" that says that:

> "The internal system of representation has a language-like syntax and a compositional semantics. According to this view, much of thought is grounded in word-like mental representations. In addition, the content of a complex symbol is supposed to be a function of its syntactic structure and the contents of its constituents."[5]

In line with the argument and picture of the whole I am trying to create I can say that a concept is like a semantic field. In linguistics, a semantic field is the area of meaning covered from a word or a group of words that are in close relationship of meaning. This is possible when two words

share at least a semantic feature. Words of the same class must have in common at least a minimal part of meaning in order to belong to the same semantic field.

A further in-depth analysis is necessary in regard to concept as a semantic field, the connection to its structure and use as architectural tool. In cognitive linguistics concepts have a definitional structure and are organized into levels of categorization.[6]

The categorization of concepts is based on their specificity, a taxonomy[7] of class inclusion and degree of generality where there are three main levels identified: superordinate level, basic level and subordinate level. Taxonomy is meant as the branch of science that is concerned with classification, especially of organisms; systematics.

Superordinate concept categories display a high degree of generality, it is an abstract information. They include basic level categories.

Basic level categories are levels where concepts are most readily recognizable, this category is the most culturally prominent one and has the most basic cognitive functions. The basic level is more specific than the superordinate one and contains the most relevant conceptual information.

Subordinate level categories have a low degree of generality and class inclusion, they are very specific and are highly detailed features and are, in a way, less informative.

Following are four examples of "superordinate – basic – subordinate" categories:

> vehicle – car – jeep
> fruit – apple – grannysmith
> object – table – card
> table animal – dog – husky

It is noticeable that the subordinate category (jeep, granny smith, card table, husky) is included in the basic one (car, apple, table, dog) and that both are included in the more general superordinate category (vehicle, fruit, object, animal). This means that the superordinate category is the level with the biggest amount of elements in it that are all in relation to each other.

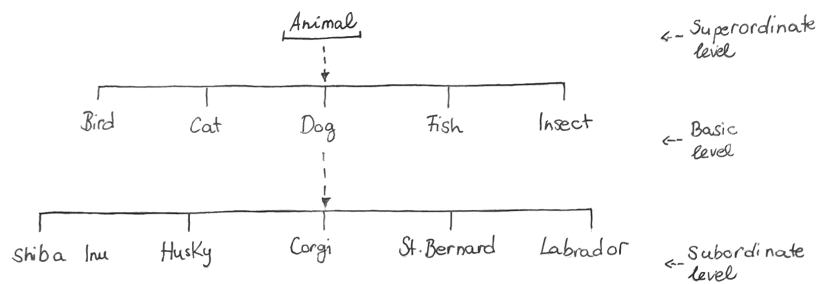To visualize the categorization in a more explicit way:

Image 2: Taxonomy diagram

In other words, if I am asked to draw an animal, the more information I have about it, the more detailed and complete the drawing will be. A lack of information, might give more space to imagination and creativity. One is not necessarily better than the other in terms of the end product, they will be different though and have different qualities. In line with my stance I will consider a superordinate concept and its richness of elements a positive feature in light of the fact that having a lot of information about a concept e.g. an animal, will make it easier to draw it.

Linking this categorization to concept as a semantic field, it is consequent that a superordinate concept would have the biggest semantic field since it includes basic and subordinate concepts. It is like an object formed and defined by many different elements in a logic connection to each other.
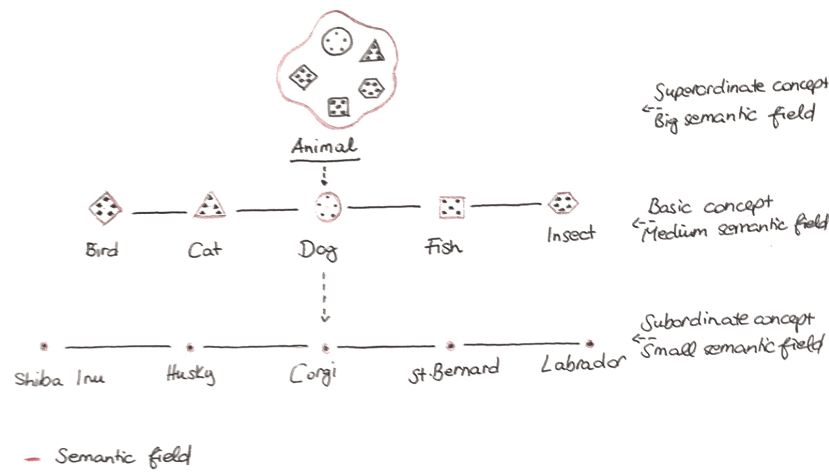
Image 3: Semantic field diagram

This analogy shows us that when theoretically talking about an architectural concept we mean a structured ensemble with a clear syntax. Architecture theory though is not detached from practice, it encounters the real world through the element of space. Architectural practice requires the involvement and perception of space and the environment. The environment appears as a subject in the form of data and analysis and is fundamental, for as architects we have responsibility towards our surroundings, history and the world around us, because every gesture has an impact and a possibly lasting effect. Generally speaking, concepts in architecture generate from an analysis of the circumstances and lead to an idea towards a solution. Typical fundamental elements that constitute the analysis and therefore basis necessary for the architectural practice and design come from different fields and include: topography, morphology, environment, climate, regulations, restrictions, infrastructure, cultural values, heritage, sociology, urban dynamics, town picture, feasibility study, sustainability, etc.

The challenge is to interlace the design with the analysis, representing the two subjects in my architectural discourse. In other words, the two subjects analysis and design, can be seen as two superordinate concepts that need to be connected through a web; a structure that coherently and harmoniously relates them and the elements in them.

III. How do concepts relate to each other? Interdisciplinarity in architecture, fields and concepts that meet and are in relation to each other and in doing so generate an architectural object

Through the previous paragraphs I have first defined what a concept is and how a concept is structured, subsequently I will delve into the bond between concepts. In order to understand the logical connection of the above-mentioned two subjects (analysis and design) I will use an analogy to mathematics and more precisely vectors.

In mathematics, a vector is an object that has both magnitude (size) and direction. Vectors are denoted using arrows e.g. $\vec{a}$, when we refer to a number that is not a vector we can call the number scalar and denote it with italics e.g. a. A vector is an element of a vector space. A vector space V is a collection of vectors, which may be added together and multiplied (scaled) by numbers called scalars. Given a basis of a vector space V, every element of V can be expressed uniquely as a linear combination of basis vectors, whose coefficients are referred to as vector coordinates or components. A Linear combination is the sum and product of a vector basis V with scalar components a_i. A vector space can have several distinct sets of basis vectors; however each such set has the same number of elements, with this number being the dimension of the vector space[8]

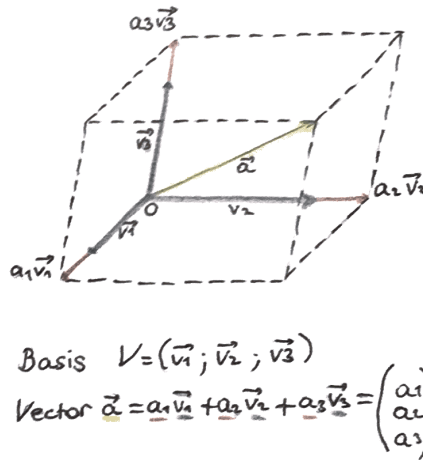

Image 4: Vectors and components

E.g. vector $\vec{a}$ is a linear combination of the vectors $V = (\vec{v_1}, \vec{v_2}, ..., \vec{v_n})$ with scalars $a_i = (a_1, a_2, ..., a_n)$; the numbers a_i are the coordinates

of the vector $\vec{a}$, with respect to the basis V.

If I have a basis $V = (\vec{v_1}, \vec{v_2}, ..., \vec{v_n})$, the components of a vector $\vec{a}$ compared to the basis V will be $a_i = (a_1, a_2, ..., a_n)$.

The basis V that is composed by many vectors $(\vec{v_1}, \vec{v_2}, ..., \vec{v_n})$ represents the many fields that come together in the formation of the superordinate concept of analysis, the numbers a_i represent the superordinate concept of design and vector $\vec{a}$ represents the result of the two concepts i.e. the architectural object.
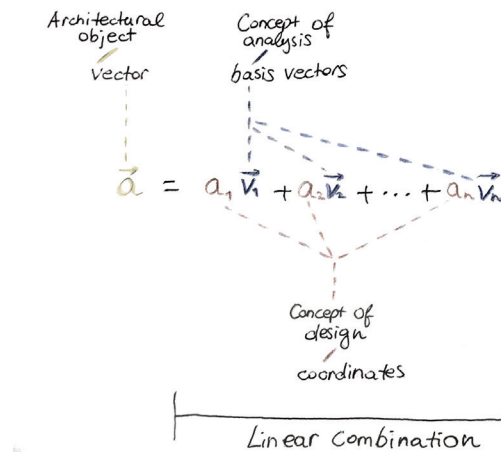

Image 5: Analogy vectors and concepts

The interlacing web between analysis and design is a connection of many different elements like the components of a vector space, where the effort lies in trying to incorporate them and make them wholesome through a concept that works like a string that guides the work and connects said elements resulting in a coherent architectural object.

Analogy:

Mathematics

Like taking the components of a vector space and through scalar components creating a vector that is linearly dependent to it.

Architecture

Like taking the components of the analytical concept and through the

design concept creating an architecture object that is linearly dependent to it.

To sum it up it means that the result (the architectural object), is generated by a synergy between the two subjects (analysis and design).
The dimension of the vector space defines how many components are in a vector and a scalar number and it remains constant. This means that an answer to a superordinate concept with many elements will proportionally also be a concept of the same kind.
I would say that concepts in architecture design are mostly basic or subordinate, with a relatively small semantic field compared to the analytical part since, other than fulfil the role of "primum mobile"v (most important source of motion or action), they are also necessary and used for the wording and have to be clear and concise. My approach is to try and use a superordinate concept and see its potential in architecture design. Given indeed, that the grounding elements for architecture itself come from different fields and as an entirety it is therefore interdisciplinary, my approach to it leads towards the embracing of this multitude. My intention through this work, as a response to this multitude, is a multifaceted superordinate concept with a big semantic field, in the attempt to create something coherent and rich of content.

2
Literature as a concept

In the first chapter I have analysed the meaning and use of a concept, following I will give an example of it building up on the notion of a superordinate concept.

Whereas there are infinite possibilities for the choice and creation of concepts, in this particular case I will delve into the combination of architecture and literature; or more precisely literary architecture, because of the potential I see in the pairing. Concretely it means to try and use literature as an architectural concept; for the understanding of it an analysis of the analogy is necessary, and accordingly the similarities and differences between them.

I. Meaning of literature and architecture

English art critic and theorist John Ruskin (1819-1900) dealt with interest with the issue of architecture, given the emphasis he gave to it in his work that revolved a lot around the connections between nature, art and society. His reflections are interesting and relevant to this day:

> Architecture is to be regarded by us with the most serious thought. We may live without her, and worship without her, but we cannot remember without her. Literature (poetry) and architecture; these two arts, independently and interdependently, "conquer forgetfulness", or to restate positively, enable us to remember the past.[9]

Architecture and literature are two wide and variegated disciplines, the union of which presents a lot of potential. They have both an enormous value for culture and human beings altogether and as John Ruskin says in his work *Seven Lamps of Architecture, The Lamp of memory*, they are signs of time and memory. Both fields have, other than a functional value necessary for human living and existence, a cultural and spiritual value too, whose content is also important but in a different way. It could be called humane value: content, memory, identity, soul healing, conquest of loneliness or refuge for the self.

Architecture and literature have in other words a useful external purpose and at the same time are ends in themselves. While stretching this inter-

pretation further, one could say that they are a projection of the human complexity to the outside or another dimension.

The primitive and primary function of architecture can be simply described as a medium between humans and nature, a shelter indispensable for survival, the concept of the "Primitive Hut". At the same time it can also have a historic dimension and a cultural or emotional bond; different from the primitive function but not less important. This also applies to writing and literature, both mirroring the human imprint.

In a broad sense, this parallelism can also be extended to the human being in itself. Biologically the meaning of life is survival and reproduction (primary function) but at the same time, continually seeking a sense of existence beyond the biological function is also part of our nature. Some aspects of the concerned fields represent this pursuit.

To illustrate this concept I would like to refer to recent events that demonstrate the extended value of architecture. I choose to use a contemporary example from the news, to show how deeply this concept is embedded in our culture and how it touches everyone daily even in the most superficial way through the media.

In august of 2015, during the war in Syria, Isis committed two atrocities in the Syrian city of Palmyra; first killing the head chief archaeologist and then blowing up the ancient temple of Baal Shamin dating back to AD17. While the public response for the beheading of the archaeologist was that of public outrage, the destruction of the temple was even more shocking and hurtful. This is shown in the coverage of the media, through newspapers like The Guardian that published articles titled: *Why it's alright to be more horrified by the razing of Palmyra than mass murder.* or *Palmyra: destruction of ancient temple is a war crime, says Unesco chief.* I will cite some parts of said articles, since they help to make my point more explicit.

One of the interviewed people of the first article, Amr al-Azm the former head of Syria's conservation laboratories, comments the weight of the destruction with heavy and heartfelt words:

It's a very important part of Syria's cultural heritage and therefore part of the Syrian people's history and heritage...and it will never be replaced. It's a national monument and there aren't many national symbols left in Syria that Syrians still identify with, given their country has ruptured across every possible cleave you could think of.

> [...] They may have disagreed today about what their future should be, but they still share a common past. We should not underestimate the power of that.

> [...] Here we are talking about rocks and stones and focusing on Isis atrocities and the regime is committing atrocities everyday in Douma and Zabadani and Aleppo, but I always say that people without their heritage and history are not people. Preserving heritage is as much about preserving Syria as preserving its people.[10]

The value of   places and buildings trascends time and space, thus the systematic distruction of it signes a break of this continuity and of the narrative of our stories, of what makes us who we are today. The second article, written by Julian Baggini, addresses the legitimacy of this feeling of loss and the delicate comparison of it to a human life.

> There is a literal sense in which we are not just atomised animals but minds who are connected to others in different times and places by compassion, history and values. The destruction of historical sites is an assault on this aspect of our humanity.I'm not suggesting that we should prioritise the preservation of artefacts over the saving of human lives. If I had to choose, I'm sure I'd pull a person from a burning building before a Picasso. But that does not mean to care about the destruction of our heritage is to care about things more than we do people. Rather, it is to care about people as more than just biological things.[11]

Often the value of something can be felt and measured only when it is lost. During war, monuments and buildings belonging to cultural heritage are wiped out systematically as an attack to life and identity; an attack towards a public property but that touches many individual ly.

Similar emotional weight can be found for literature too and in this case it is even clearer since the feeling is expressed through words. I will use an example of war times for literature too, because as I said before, during the hardest times, when our humanity is questioned, implicit and important things come to the surface. In Primo Levi's *If This Is a Man* there are numerous references to the descent from Dante Alighieri to the Underworld from the *Divine Comedy*. One of the chapters from Levi's book (the eleventh, entitled *Il canto di Ulisse*) is also structured as a resumption of the journey of Ulysses in the Canto XXVI of *Inferno*, which Levi repeats from memory while at work, in order to save his being a human being from the brutalization of the Nazi concentration camp.

> Here, listen Pikolo, open your ears and your mind, you have to understand, for my sake: "Think of your breed; for brutish ignorance Your mettle was not made; you were made men, To follow after knowledge and excellence."

As if I also was hearing it for the first time: like the blast of a trumpet, like the voice of God. For a moment I forget who I am and where I am. Pikolo begs me to repeat it. How good Pikolo is, he is aware that it is doing me good. Or perhaps it is something more: perhaps, despite the wan translation and the pedestrian, rushed commentary, he has received the message, he has felt that it has to do with him, that it has to do with all men who toil, and with us in particular; and that it has to do with us two, who dare to reason of these things with the poles for the soup on our shoulders.[12]

Ulysses represents the will to know, that it is the essential quality of the modern man; a life without this desire constitutes an experience worthy only of an animal. The memory of Dante brings to the surface the memory of the life lived so far by the inmates Jean and Primo (the mountains, the sea), that the logic of the Nazi extermination tries in every way to cancel, reducing the men only to a serial number, thus coming to annihilate human dignity. This is how the Canto XXVI of the *Inferno* brings out the profound identity of the human ego, by saving memories. Basically the Canto of Ulysses serves the two inmates to find themselves in that abyss of nothingness constituted by the concentration camp.

II. Similarity and comparison between literature and architecture

The realm of literary architecture is a cross-disciplinary one and while the two disciplines closely relate to each other, works and researches on the theme are hardly found. I believe that it is a neglected subject whose potential has yet to be revealed. Walter Pater, an English writer and aesthete, critic of art and literature, coined the term itself only in the 19th century. In his book *Appreciations With an Essay on Style* (1889) he elaborates the elements that make up his ideal prose style, which he strove to make worthy of his aesthetic ideals. His meticulousness in composition and the construction of phrases finds in architecture a good parallelism for the wording and explanation of the idea.

A good summary of Pater's dwelling in the analogy can be found in the work of Anna Budziak, polish professor of English Literature and Comparative studies in Brno. Budziak talks about Pater's stance on the subject, the value of architecture and literature, in her writing *Literature in Walter Pater's Architectural Analogy*:

Pater's ethic of the usefulness of literature is also rendered in terms of an architectural metaphor: a literary work beco mes a home and the reader, a dear guest [...] composing with words, as in building

with bricks. [...] Architectural conception of work, which foresees the end in the beginning and never loses sight of it, and in every part is conscious of the rest, till the last sentence does but, with undiminished vigour, unfold and justify the rest.

[...] The correlation of art, human figure and personality foregrounds his philosophy of literary language in his essay on style. Once the work is completed, "all becomes expressive". In *Style* all four – architecture, literature, the "soul" and the "mind" – come together to be great, literature must be functional; it must be as useful as architecture – a meeting point and a dwelling. Pater views a literary work in terms of an encounter, a meeting with "a person, in a book", thus, he is impelled to set up a high ethical standard of truthfulness. The truth of literature consists in the highest possible degree of compatibility between the thought and the word. This high personal standard of honesty is fundamental since, in the metaphorical sense, in a house made of words, the author is a host. This is how the ethical facet of Pater's aesthetics makes itself apparent: literature in Pater is a means of contact, a bridge leading us out of the trap of solitude. The function of establishing intimacy amongst individuals overlaps with that of a sheltering home. Literature is a home in which nobody is alone.[13]

Pater often uses architecture as a metaphor for the creation of a literary piece, lingering in the making process of building up elements with the end goal always in mind. Other than the technical and structural side he also compares the content that as a totality has a usefulness and impression on the contemplator. His vision is nevertheless mostly focused on the legitimacy of comparing literature to architecture, the latter as a way to better understand the former; looking at it the opposite way is in my opinion pertinent and interesting when thinking of architectural design and creation. Both disciplines have similarities that make them righteous supporters of each other.

Besides the similarities, the comparison is also very interesting, since it points out the differences of the realms in which the disciplines belong.

In the very few books that deal with this subject matter, one that stands out is *Literary Architecture, Essays Towards a Tradition*, award-winning book by Ellen Eve Frank. Frank is an American artist, writer and educator, her cross disciplinary background lays the groundwork for her book where she explains the stances of four authors relevant to the matter of said analogy; namely Walter Pater, Gerard Manley Hopkins, Marcel Proust and Henry James. The book analyses the four authors with their comparison to architecture as a common denominator and presents Frank's stance in the last chapter called *The Analogical Tradition of Literary Architecture*, where she articulates her conclusion through words

and very interesting diagrams.

Architectural places –literary and physical- echo and reso-
nate in the life of our mind. Literature and architecture are se-
parate art forms; and we must qualify their relationships with
care, in the same manner Ruskin qualifies them when he says
"the latter (Architecture) in some sort include the former (Poetry).
Their separate existence is a consequence of material form and ti-
me-life within contexts of separate traditions, we must say that
the two arts hold no intrinsic or necessary similarity: the one
is an art of stone or concrete, the other of letters and words. [...]
Both literature and architecture are composed of space, time, matter,
energy, this last being a holding-tension, the stress-release bond whi-
ch constrains matter into form, assigning it place and preventing its
explosion into random disconnectedness. Literature and architecture
are compositions; they require artist-doers. We persist, of course, in
thinking of each art as outward, existing in the solidity it discovers
in this final form; but each has an inward motive such that outwar-
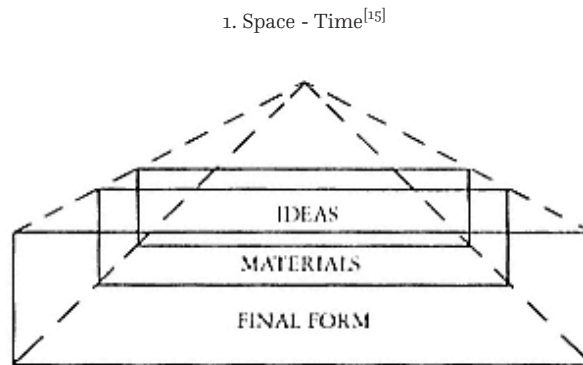dness represents conversion from idea-matter-into matter. This is
embodiment.[14]

1. Space - Time[15]

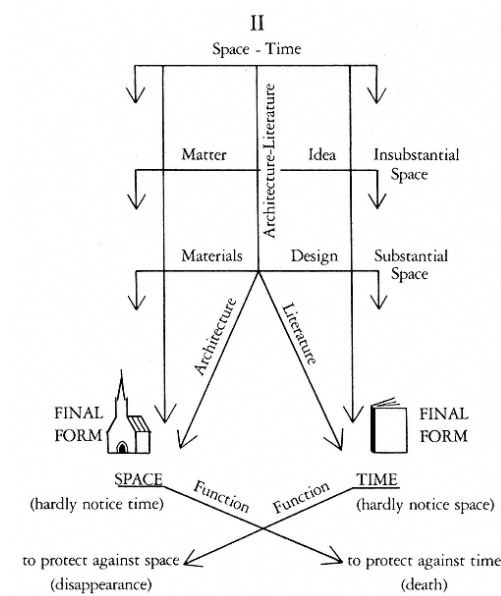Image 6: indicates that space-time is common to all three stages of the art activity

2. Space - Time[16]

II

Space - Time

Architecture-Literature

| Matter | Idea | Insubstantial Space |

| Materials | Design | Substantial Space |

Architecture

Literature

FINAL FORM

FINAL FORM

SPACE
(hardly notice time)

Function

Function

TIME
(hardly notice space)

to protect against space
(disappearance)

to protect against time
(death)

Image 7: represents where-when architecture and literature diverge in form and then
again in function

3. Literary Architecture[17]

V

Space Undivided
open field

Space Designated
conception

Space Divided
territory

Unformed
materials

Informed
materials

Formed
materials

Ideas

Designs

Literary Architecture

Time $_1$

Time $_2$

Time $_3$
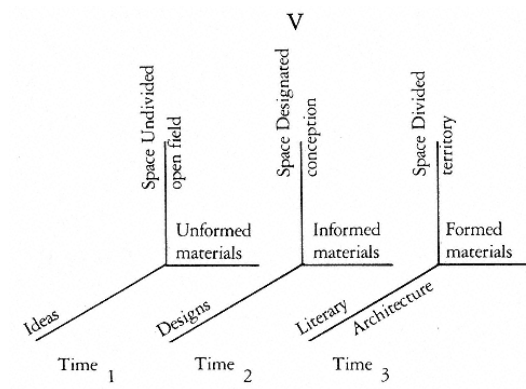
Image 8: shows literary architecture in three space-time intervals

> What distinguishes literary from architectural art, then, is not elements (particularity) but the proportion-combination of elements: architecture celebrates space through enclosure, converting an open field into territory (this is the marking of boundaries); literature celebrates time through expansion, quickening the open field with imagines (this is the opening of dream) [...]
>
> We cannot have the one without the other. Despite differences in form, architecture and literature each partake of the other's dominant element. Pater, Hopkins, Proust, and James choose the architectural analogue for literature so that they may emphasise the spaciousness of literary art despite the insubstantiality of that space. [...][18]

Therefore fundamentally speaking one is an art of form and space whereas the other of letters and words. While on an abstract level the two arts present similarities as embodiment of an idea, the biggest difference lies in the formality that according to the writers can be the reason why architecture and literature complement each other.

My approach is to deal with this union and find the complementarity in the inverse process, meaning to use literature as a metaphor and concept of architecture.

III. Literature as a concept

> While a completed architectural structure is static from the viewer's stance, as artefact it is dynamic, for its final form depends upon the disposition of stresses, themselves active. This stressful dynamism of architecture has much to do with its suitability as analogue for nature.[19]

> Walter Pater

As said before, architecture and literature complement each other through their parallelisms and differences; in this context one recurring theme that is the most relevant to my discourse is the structure. The nature of the said arts is that of a complex structure built from many elements connected to each other, like components and blocks that build up one over the other. Not only the elements but also the relationship between them is very important as they create logical connections that are like a web of tension and proportion. In terms of literature they would for example be grammar rules, syntax, compositions and figures of speech; while for architecture laws of physics, construction, material properties, proportion, composition.

Due to the complexity of the fields, by trying to picture them figuratively they wouldn't be linear, but a complex ensemble of elements interlaced in a fine structure. Walter Pater defines them like a frozen dynamic system. Architecture and literature consist of form and content that are connected on various degrees to each other, up to the point of being dependent from one another. These links create tensions between the various elements and therefore a dynamic and variable system whose structure is often an image of intention and message.

With this premise, in the blending of the two fields, literature could become a semantic field with a clear syntax for architecture, or in other words its superordinate concept.

What it concretely means, is that during architecture design, where one has to look at the big picture and connect many elements from different fields in order to create a whole and be coherent, having a concept as a reference that works and is line from the starting point to the ending point is of great help. Architecture design/making is not a linear process, in order to ease the process we need a reference point that supports the work. Literature is like a construction of words with a defined structure, syntax. Words are bricks and the end product is a building. Its complexity compares to that of an architectural object thus making them relatable. Because of this, decision-making becomes easier thanks to the presence of a semantic field with a huge amount of elements to back the up and lead the steps necessary to create.

Literature has structure and it has soul, it lacks physical space, architecture gives it. The other way around, because of the necessity to build a physical space, architecture may lack soul, which is something that literature can provide. Language has ways of delivering ambience, atmosphere and emotion through the finesse of its structure.

In order not to leave this analysis on a purely theoretical and abstract level, I will exemplify my interdisciplinary approach between architecture and literature through a project that represents design as the result of a working method that uses a literary work as a superordinate concept.

3
The *Divina Commedia* as a superordinate concept

I. The choice of the literary work

The choice of a literary work in my specific case is dictated by a personal preference, as it is an ideal project not imposed by external factors and influences.

I believe that most literary works lend themselves to be architectural concepts; criteria of choice for me are content, form and the impact that they can leave to the reader. In this circumstance one of the literary works that mostly left a mark on me, especially during my studies, was the *Divine Comedy* by Dante Alighieri.

La Comedia, or *Commedia*, known above all as the *Divina Commedia* (Divine Comedy), is an allegorical-didactic poem by Dante Alighieri, written in chained tercets of hendecasyllables (later called Dantesque tercets par excellence) in the vernacular Florentine language. Hereafter I will refer to the *Comedy* and other references to the poem with its original Italian version.

According to critics the poem has been composed between 1306/07 and 1321, years of Dante's exile in Lunigiana and Romagna, the *Commedia* is Dante's masterpiece and is universally considered one of the greatest works of literature of all time, as well as one of the most important testimonies of medieval civilization, so much to be known and studied all over the world.

The poem is divided into three parts, called "cantiche"; *Inferno* (Hell), *Purgatorio* (Purgatory) and *Paradiso* (Paradise), each of which consists of 33 songs (except Hell, which contains a further proemial song). The poet tells of an imaginary journey, through the three otherworldly kingdoms that will lead him to the vision of the Trinity. His imaginary and allegorical representation of the Christian underworld is a culmination of the medieval vision of the world developed in the Catholic Church. The work was immediately extraordinary successful and contributed decisively to the process of consolidation of the Tuscan dialect as the Italian language. Although the *Commedia* pursues many of the characteristic ways of medieval literature and style (religious inspiration, didactic and moral purpose, language and style based on the visual and immediate perception of things), it is profoundly innovative because, as has been noted in particu-

lar in the studies by Erich Auerbach, it tends to a broad and dramatic representation of reality and is one of the obligatory readings of the Italian school system, where it is studied from the content and technical point of view. After more than 700 years after being written it is still as relevant as ever because of the universality of the themes it treats, most notably and importantly that of the human condition.

II. The cultural influence of the *Divina Commedia*

In one of the Italian school textbooks about the *Divina Commedia* there is an introduction that expresses why it is still relevant and important to read Dante today and it roughly translates to the following.
It is good if one can study literature outside a whole culture of an epoch, while it is harmful to close a literary phenomenon in the epoch of its creation, that is, in the time period that is contemporary to it. If we confine literary work within and epoch, its future life will be incomprehensible in the following centuries and seem a paradox. Literary works break the frontiers of their time and live in the centuries, that is in the "great time", and often live of a more intense and full life than in their contemporary age. As if to say that we, distant posterity of Dante, precisely because of our "extralocality", meaning from our belonging to another space and to another cultural time, receive the stimulus to dialogue with the text.[20]
The Russian semiotician Mikhail Bakhtin words this distance between literary work and the reader/receiver as necessary for the full development of the work:

> In order to understand, it is immensely important for the person who understands to be located outside the object of his or her creative understanding—in time, in space, in culture. For one cannot even really see one's own exterior and comprehend it as a whole, and no mirrors or photographs can help; our real exterior can be seen and understood only by other people, because they are located outside us in space, and because they are others.[21]

The concepts of others and outsideness rely on the fact that we can basically perceive the world exclusively through our personal point of view, that is the limit of the body. It is not possible through our senses to have an objective and universal perception of the surrounding world and above all of ourselves, thus our view is restricted and can be complemented by an outside element.

> Semantic potentials can be realized only dialogically. What is re-

quired is genuine alterity or "outsideness", a perspective shaped by cultural experiences the author could not know. The two perspectives may generate new meanings that neither side could arrive at without the other.

Thus readers from another culture or a later epoch may enter into dialog with the work and, responding to its potentials, produce meanings that depend on both the readers' conceptual horizon and the potentials in the work. Readers from still later epochs may repeat the process, and so the work may grow in meanings over time (or across cultures). Because the new meanings depend on readers as well as the potentials of work, rich potentials may generate many different kinds of readings as the work figures in different cultures and epochs.[22]

In other words, more aspects and depth are added to the work because of a dialogue that goes through space and time, it constantly develops from a potential state and reveals it true nature. This is shown in the cultural influence of Dante Alighieri worldwide and how it has changed through time.

The cultural influence of Dante Alighieri consists in the reception of the poetic production of the poet in Italy and in the rest of the world over the centuries, undergoing alternating phases of appreciation and open hostility on the part of Italian and foreign critics and artists. Already since the fourteenth century, the *Divina Commedia* had had a wide and favourable reception by the public. Known and appreciated during the 15th century, the production of Dante began to spread also in Spain, France, England and Germany, knowing a popularity that lasted until the '30s and' 40s of the '500. Later, with the Counter-Reformation, Dante also became acquainted with the ecclesiastical censorship due to the "pro-imperial" treaty *De Monarchia*, inscribed in the Index of prohibited books. Ignored or even despised in the eighteenth century, Dante rediscovered the favour of critics and the public in the romantic season, because of the strong religiosity, of the poetic images rich in sentimental pathos and, also, of the political message adopted by the Risorgimento. The critical-literary magisterium then of the critic Francesco De Sanctis consecrated Dante as a model of the highest poetry and national symbol, thus beginning a long period of literary criticism and a progressive diffusion of Dante's work among Italians, thanks to commemorative initiatives and to the school study of the *Commedia*. Simultaneously with the rediscovery of Dante by the romantic Italian intellectuals, there was a renewed interest in his figure and his poetics in the remaining European countries and, from the twentieth century, also extra-European. With the birth of mass culture and the development of the media in the second half of the last century, the *Commedia* and Dante's poetic universe were also disseminated out-

side the philological and literary circles, landing in cinema, comics and world of videogames.

The analysis of the reasons why Dante fluctuated in popularity over the centuries underlines the concept of extralocality expressed previously, where at every epoch the *Commedia* took on a different meaning derived from the weight that was given to the various levels of interpretation.

For his contemporaries Dante's work was innovative and appreciated mostly because of his use of vernacular and exceptional use of various linguistic registers. He was considered a stylistic master. Dante's purpose was to make literature approachable to the people and not confining it to being an elitist privilege because of the use of Latin for written language. The religious aspect was also very important.

Dante was a real cult object for Renaissance painters; among the most notable exponents were Guglielmo Girardi, Sandro Botticelli and Michelangelo Buonarroti. The interpretation key in this period is the iconographical potential of the *Commedia*.

Image 9: Sandro Botticelli, Inferno

In the early centuries of the modern age, the Dante cult also reached other European countries: France, England, Spain and Germany. This expansion was mostly due to the representation and structure of the afterworld and the fact that people were strongly struck by the high poetry of Dante, he was called "The grete poete of Itailie, that highte Dant" in England.

Dante did not have a good reception during the Enlightenment, both in Italy and in Europe; the rationalist and illuminist cultural temperament rejected the medieval God, the emblem of religious obscurantism of that era.

During Romanticism, however, the cult of Dante revived; the passion, the dramatic episodes of Hell and the pathos born of the Rime and Vita Nova, decreed Dante as the poet par excellence of the new romantic literature. The prominent element and the key to reading was therefore other than the formal aspect, the emotional content of the *Commedia* too. After 1815 and the Restoration, Dante assumed the role of the very symbol of Italianism in the struggle against the Austrian oppressor. In addition to the connotations of romanticism, therefore, Dante became a symbol of the Risorgimento and artistic image in every field: from music, to visual art, to literature. Of particular note are the famous representations of the *Commedia* by the French artists Gustave Doré and Auguste Rodin, the former through engravings and the latter through sculpture, which are still among the most representative and known of the poem.
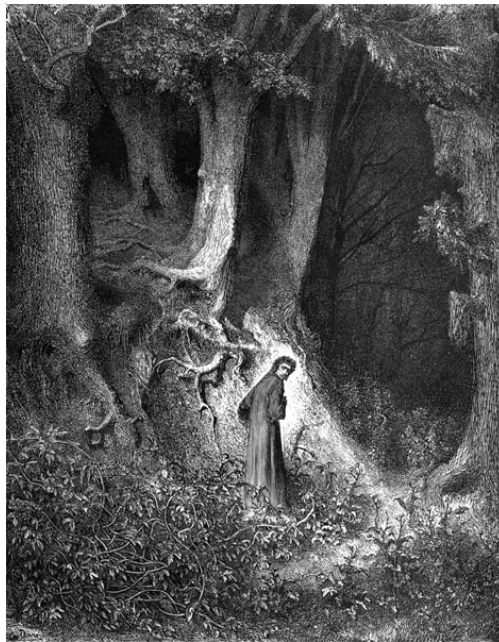
Image 10: Gustave Dore, Divina Commedia, Paradiso 1890

In the second half of the 19th century, the birth of literary historiography with Francesco De Sanctis gave vent to the interpretative vein of contemporary Italian intellectuals: Giosuè Carducci, Giovanni Pascoli and members of the Historical School wrote numerous articles on the poet, so the beginning of a more wholesome analysis and a bigger spectrum of interpretation, including the historical one.

The interest in Dante did not diminish even during the XX and XXI century.

In the late twentieth century, among the most significant imitators of Dante we find, first of all, Primo Levi of *If this is a man*, there are numerous references to the descent from Dante to the Underworld: one of the chapters (the eleventh, entitled *Il canto di Ulisse*) is also structured as a resumption of the journey of Ulysses in the Canto XXVI of the *Inferno*, which Levi repeats from memory while he is working hard, with the aim of saving his being a human being from the brutalization of the Nazi concentration camp. In Russia, the poet Osip Ėmil'evič Mandelstam saw in Dante a hymn to freedom before the violence of Stalinist totalitarianism. Therefore the cornerstone is the human condition and human being itself, point of view originated from suffering and hard times, when it was not clear what it meant to be human because of the atrocities of war. Dante often serves as a reference and inspiration in world literature, recently, the poet has returned to the spotlight in the United States thanks to Dan Brown who, for his novel *Inferno* (2013), was inspired by Dante's *Inferno* for the structure and topography of the underground kingdom.

Today Dante and the *Divina Commedia* are more spread than ever before on a world scale thanks also to mass culture.

Dante Alighieri, in Italy, is considered as a national symbol; so much so that the Institute dedicated to teaching Italian culture in the world, the Dante Alighieri Society, bears his name. The *Divina Commedia* appears all over the world in literature, art, philosophy, movies, theatre, music, comics, animation, videogames and architecture.

E.g. Image 11 *Dante's Inferno* is a 2010 action-adventure video game developed by Visceral Games and published by Electronic Arts for the Xbox360 and PlayStation 3 consoles. The game's story is loosely based on the Alighieri's *Inferno*.

Image 11: *Dante's Inferno,* 2010

Image 12 is a frame out of the popular Japanese Anime (animation) tit-
led *One Piece* showing a prison called Impel Down (Kaitei Kangoku) or
Underwater Prison. It represents a maximum-security prison for the
most dangerous criminals and pirates, designed as a large submerged
tower-like structure with a hierarchy based on dangerousness inspired
by Dante's *Inferno*.

Image 12: Impel Down, *One Piece*

Image 13, *L'Inferno di Topolino* is a comic-strip story, parody of Dante's *Inferno*, published in the Mickey Mouse magazine - from n. 7 to n. 12 - from October 1949 to March 1950.

Image 13: *L'Inferno di Topolino*, n. 12

The *Divina Commedia* is an now integral part of pop culture, mostly because of its representative structure, strong images and content whose perception is immediate, thanks to the poem itself and the continuity of the work's presence over time, it has become part of global heritage. The fact that *Commedia* has become an emblem in pop culture does not discredit the intellectual value of the work; belonging to mass culture is often seen as devalorization, as a celebration of banality. I do not agree with this aspect, I see it rather from a point of view of communication and positive exchange; literature is not a purely intellectual and elitist prerogative. Although not everyone can grasp the facets of the *Divina Commedia*, at least there is the possibility of approaching it. Dante's intention in choosing the vulgar language in the *Commedia* was to bring literature closer to the people, today, almost 700 years later, it is the people (the masses) that further revive and expand the flame of the poem. This legacy of Dante and of the *Divina Commedia*, which lives continuously on its own life, is almost moving.

Through this temporal development and extralocality the dimension of the *Commedia* has been amplified, in its relevance and importance, as well as in the interpretative levels. In fact it has an invaluable literary, historical and cultural value, as a witness of society and of medieval

thought, as well as its future ramifications through external influence. The study of the poem is complex and difficult and grasping all of it is a struggle, it is like a witness of human history.

One of the biggest poets of the 20th century, the Russian Osip Mandelstam, wrote on the matter in his book *Conversation about Dante*:

> The quality of poetry is determined by the speed and decisiveness with which it embodies its schemes and commands in diction, the instrumentless, lexical, purely quantitative verbal matter. [...]
> Dante's poetry partakes of all the forms of energy known to modern science. Unity of light, sound and matter form its inner nature. Above all, the reading of Dante is an endless labor, for the more we succeed, the further we are from our goal. If the first reading brings on only shortness of breath and healthy fatigue, then equip yourself for subsequent readings with a pair of indestructible Swiss hobnailed boots. In all seriousness the question arises: how many show soles, how many oxhide soles, how many sandals did Alighieri wear out during the course of his poetic work, wandering the goat paths of Italy. [...]
> Examining the structure of the Divina Commedia as best I can, I come to the conclusion that the entire poem is but one single unified and indivisible stanza. Rather, it is not a stanza, but a crystallographic figure, that is, a body. Some incessant craving for the creation of form penetrates the entire poem. It is strictly a stereometric body, one continuous development of the crystallographic theme. It is inconceivable that anyone could grasp with the eye alone or even visually imagine to oneself this form of thirteen thousand facets, so monstrous in its exactitude. My lack of even the most obvious information about crystallography, an ignorance in this field as in many others common in my circle, deprives me of the pleasure of grasping the true structure of the Divina Commedia, but such is the marvellously stimulating power of Dante that he has awakened in me a concrete interest in crystallography, and as a grateful reader -lettore- I shall try to satisfy him.[23]

III. The *Divina Commedia* as a superordinate concept

All the afore mentioned aspects make of the *Commedia* an appropriate and interesting poem to use as an architectural concept, or as argued in the first chapter as a superordinate concept with a big semantic field.

The semantic field of the *Commedia* has been visualized by a team of researchers who have developed a system of connection based on online database of Dante, the *Commedia* and its surroundings. The result is *The social Network of Dante's Inferno*:

The work aims to approach the phenomenon of culture through the development of new methods and powerful tools to capture the content of digitally stored literary material. [...]

The main focus of the work is to create a novel point of view on the interacting concepts of a literary text. We have described a system able to create an immersive knowledge environment. Inside this environment, the scholar is surrounded by a complex, multidimensional space, defined by all the concepts the author included, implicitly and explicitly in his work, as far as they are made explicit by the curators who annotated the text. The system provides a browsing feature able to focus the attention of the scholar on a particular topic. With this system, one could address questions like: why does Dante use a dialectical lexicon for a particular character? Are Guelphs and Ghibellines randomly distributed in the text or are there some particular patterns in their appearances?[24]
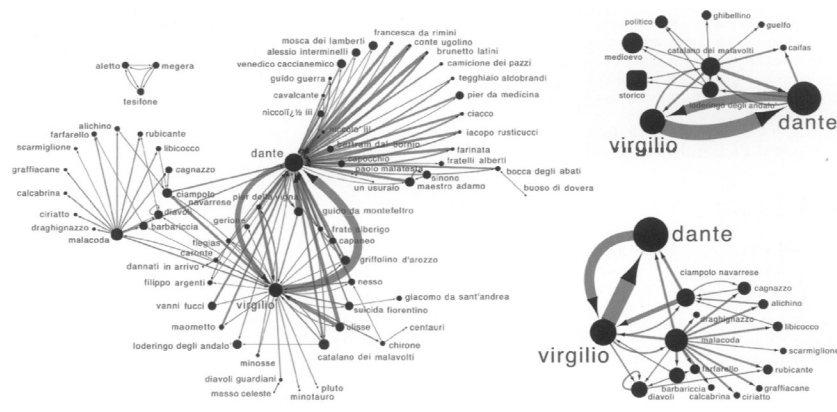
Image 14: Visualization of the *Inferno* social network, along with two conceptual ego-networks, extracted from the main network and ontology data[26]
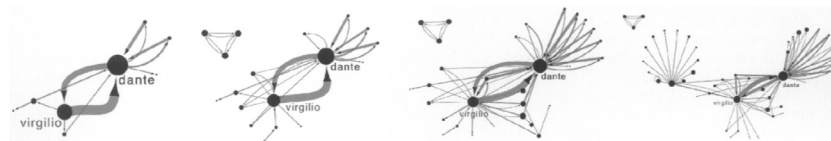
Image 15: Temporal evolution of the Inferno social network within the narrative timeline[27]

The diagrams show a visual summary of the layers, as a big constellation of points, the abstract connections in the *Inferno*, like the coordinates of a big vector space. The coordinates and connections, as elucidated in the first chapter, are some of the reference points of the big semantic field of the *Commedia*. Not everything is represented though, since it focuses solely on the social network and leaves out many layers. It shows partially what I personally find astonishing in the *Divina Commedia*: the extremely complex and elaborate structure made by a myriad of facets, layers, interpretation levels and keys to reading, all put together flawlessly in a poem. Walter Pater elucidates this idea in his introduction for *The Purgatory of Dante Alighieri* of his friend Charles Lancelot Shadwell:

> Despite the severity of his subject, Dante did not forget that his design was after all to treat it as a literary artist, to charm his readers; he has shown a command of every sort of minute literary beauty, an expressiveness, a care for style and rhythm at every point, the evidence of which increases upon the reader as his attention becomes microscopic.[25]

IV. Practical application
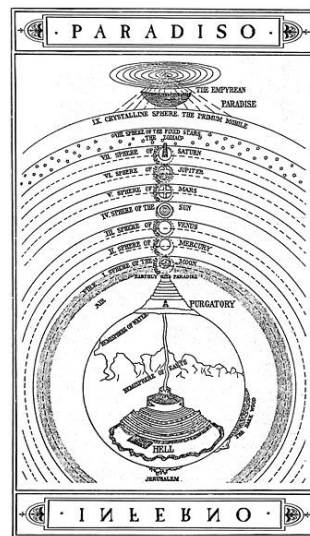
Image 16: The map of Dante's Paradise and Inferno, Michelangelo Cactani, La Materia della Divina Commedia di Dante Alighieri, 1855

From a practical point of view, the multidimensional Dantesque space means that for the artistic and architectural creation the possibilities of choice can be almost too many; the question is how and which ones to choose, we need to relate different levels of interpretation to each other, trying to follow a coherent line.

In transmuting the *Divina Commedia* in form, the most immediate approach is to resume the structure and places of the poem as described by Dante. The *Commedia* has in fact a clear and detailed structure from which, in addition to drawing inspiration, it is difficult to break away. I want to avoid literally transmuting the poem into physical form and try approaching it from different points of view.

There are two architectural examples of explicit reference to Dante. The Danteum by Giuseppe Terragni and the Palacio Barolo by Mario Palanti.
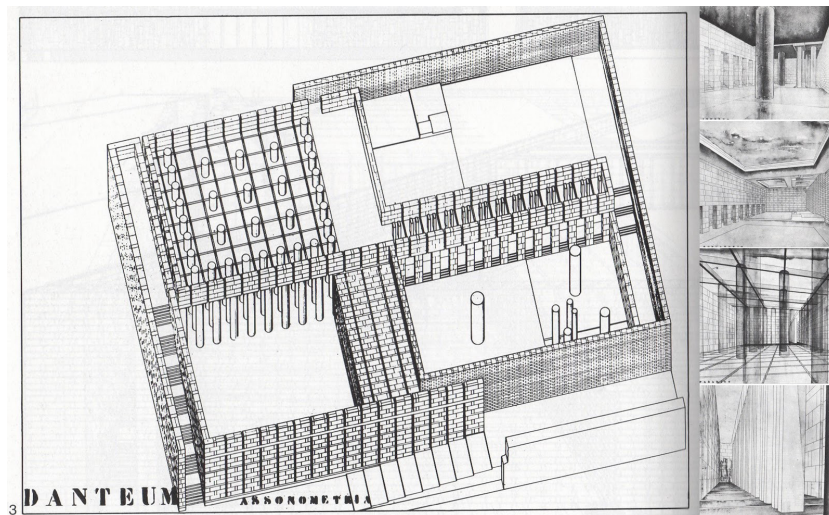
Image 17: Giuseppe Terragni, Danteum, Axonometry, 1938

The Danteum is an un-built building, designed by architect Giuseppe Terragni and Pietro Lingeri, that was supposed to rise in Rome on the Via dell'Impero. The residues of the project show the unrealized dream of Terragni for a monument to Dante, in which the *Divina Commedia* was projected in an architectural scheme.

In his report of the project Terragni says that Architectural Monument and Literary Work can adhere in a unique pattern without losing in this union any of their prerogatives. That is if each of the two spiritual facts

has a construction and a harmonic law that can compare and bind them in a geometric or mathematical relationship of parallelism or subordination. In his case, the architectural expression could adhere to the literary work only through the examination of the admirable structure of the Divine Poet most faithful to a criterion of distribution and interpretation of some symbolic numbers 1, 3, 7, 10 and their combinations that for further selection can be summarized in 1 and 3 (unit and trinity).
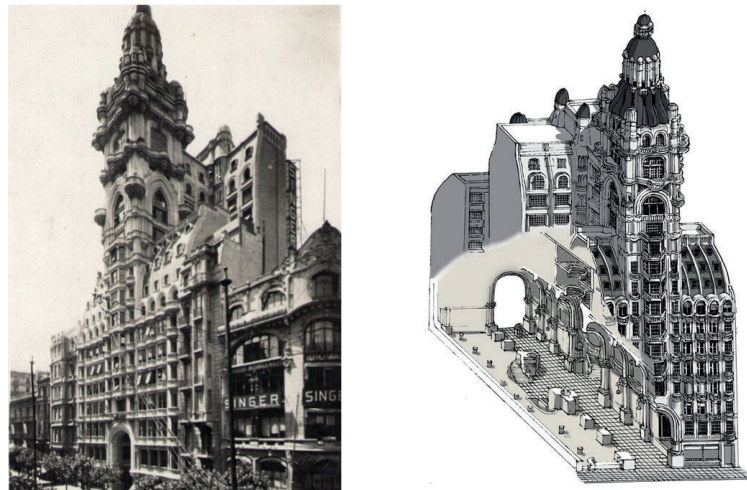

Image 18: Mario Palanti, Palacio Barolo, Argentina 1919-1923

The second example is that of the Palacio Barolo in Buones Aires, which is an office building designed in accordance with the cosmology of the *Divina Commedia* because of the architect's admiration for Alighieri.

The 22 floors are divided into three sections. The basement and the ground floor represent hell, the floors 1 to 14 the purgatory and 15 to 22 the sky. The height of 100 meters corresponds to the 100 Canti of the *Divina Commedia*.

Both projects interpret the cosmology and numerology of the poem, my approach is that of a more diverse and in depth analogy. To be able to choose the layers of interpretation and its legitimacy in order to create a coherent project, it is also important to find the purpose and context in which such building will be developed.

The interpretive levels that I have chosen for my project include mainly: movement, environments and atmosphere, language, light and themes of the Canti, the universal theme of the human condition and the legacy of Dante.

4
Project *Commedia*

Premise: clarification regarding the quotes of the *Commedia*.

From here on, there will be numerous quotes from the *Divina Commedia,* which will be presented in two versions, Italian and English. Since it is a poem written more than 700 years ago, there are numerous versions of the work and just as many translations. The magnificence and complexity of Dante's language cannot be completely reported in English; paraphrase, meaning, rhetoric, rhymes, rhythm, etc. must be taken into account. It is therefore impossible to have a translation completely faithful to the original, as the two languages are very different from each other, we will have to compromise on some aspects. The original manuscript of the *Commedia* has been lost, and so with regard to the Italian version I have chosen the edition of Giorgio Petrocchi (1921-1989), an Italian literary critic of the twentieth century. Petrocchi was a member of the steering committee of the Dantesca Encyclopaedia and edited the edition based on the manuscript tradition prior to Giovanni Boccaccio, *La Commedia secondo l'antica vulgata* (La Commedia according to the ancient vulgate), which was published in four volumes between 1966 and 1967 as part of the National Edition of the Works of Dante promoted by the Società Dantesca Italiana.[28]

As for the English version, I chose the one by Henry Wadsworth Longfellow (1807-1882), American writer and poet, among the first American writers to rise to world fame. He was a professor of Italian at Harvard and produced one of the most relevant translations of the *Commedia* in 1867. Around 1862 together with the writers James Russell Lowell, Oliver W. Holmes and George Washington Greene gave life to the Circle of Dante, deed to promote the knowledge of Dante Alighieri's *Divine Comedy* in the United States. Along with his colleagues, Longfellow completed the first US translation into English in 1867. Since then, the success of Dante's work in America was constant and later the Circle became the Dante Society, one of the most famous associations of dantists in the world. His translation of the *Commedia* is still considered one of the best and most faithful to the original since in order to fully understand Dante, a translator has to be both a poet and a scholar.[29]

I. The choice of a museum

The use of the *Divina Commedia* as a concept does not automatically imply that the function of the building must also be linked to or represent the poem. The literary work could potentially function as a concept for private and public buildings because of the intrinsic value of the versatility of literature.

The choice of the use and type of construction is free. Since in this case it is a project originally born from theory and focused on the approach to architecture altogether, the building task is something I have to look for, instead of having it as a starting point.

Building up from the previous chapters and the fundamental role of the poem in Italian and world culture, my decision falls on a public building, a museum. Especially since, paradoxically, in Italy there is not yet a museum that celebrates the Divina Commedia; therefore it seems to me pertinent to design a museum for the latter. So in this specific case, both the form and the content refer to the poem, which as said, in the general discourse of literary architecture does not necessarily have to be the case.

> MUSEUM = lat. MUSÈUM from the Greek MOYSEION formed on MOYSA Musa. Originally a sacred site of the Muses, Temple of the Muses.

The Muses are deities of the Greek religion; they represented the supreme ideal of the Art, understood as the truth of the "All" or the "eternal magnificence of the divine". They are inspirational goddesses of literature, science, and the arts and were considered the source of the knowledge embodied in the poetry, lyric songs, amid myths that were related orally for centuries.

In the preface of the Canto II of the *Inferno*, Dante enunciates the theme and invokes the Muses that will have to assist him in the narration of the journey made in the afterlife:

> O muse, o alto ingegno, or m'aiutate;
>   o mente che scrivesti ciò ch'io vidi,
>   qui si parrà la tua nobilitate.
>
> *Inferno, Canto II, vv. 7-9*

O Muses, O high genius, now assist me!
 O memory, that didst write down what I saw,
 Here thy nobility shall be manifest!

Inferno (Hell), Canto II, vv. 7-9

The convocation of the Muses by Dante is intended as an intention to describe truthfully the substance of the things seen during the trip. In my project by analogy: the Museum, originally a sacred site of the Muses, helps and places the basis of this veritable spiritual journey in search of substance.
The museum is a dynamic place of perception in continuous movement, therefore interesting for the parallelism of the Divina Commedia as an allegorical journey.

The building type of the museum could be more generally defined as a freer celebration of architecture; it has fewer constrictions than a hospital, housing, or office building. A museum has fewer rules to abide by and is a building open to the public and interacts with it through its spaces and contents. It creates a dialog and exchange between architecture, art and its user, in a broader view: between architecture and society. It is generically a more contemplative structure that lends itself to the purpose of the development of the cultural experience of the *Commedia*. Given the nature of the museum, the dialogue of exchange is also more accentuated through the element of outsideness, like said in previous chapters, in the shape of the visitor or contemplator who is invited to experience the space. It leads to the building of a relationship between architecture and visitor, just like the one between author and reader. The purpose is that of an exchange, a new value for the literary work and at the same time a new value for the visitor.

II. Choice of the site and building task

As already mentioned, in Italy at the moment there is not yet a specific museum for the *Divina Commedia*. The official museums up to date are the *Museo Casa di Dante* (Dante's home) in his hometown of Florence and the *Tomba di Dante* (The mausoleum) in Ravenna, where he died in exile. While there are various expositions about Dante's work, there is no specific space to host them. The museum of Dante's home is not suitable for expositions of the dimension and value of the *Commedia*. However, there is a very particular and relatively recent organization that deals with the

Poet in an alternative way: the *Cammino di Dante* (Dante's Journey).

The *Cammino di Dante* is the first organized route that retraces the ancient streets and medieval paths that linked, at the time of the Poet, Romagna and Tuscany, Ravenna and Florence, where Dante lived and was exiled for political reasons, and where he finished writing the *Commedia*. The way proposed to pilgrims is full of references to the political, religious, and historical events that have characterized these lands, discovering the social and cultural roots of the places beyond the current administrative boundaries. Those are the places that inspired part of the masterpiece of the *Commedia*, proposing to the Traveler Dante a swarm of ideas, beautiful landscapes and people with many stories to tell.

The itineraries that have been identified meander through the places of the Tosco-Romagnolo territory mentioned in the *Commedia*, or directly experienced by the Poet during his years of exile. The paths that make up the routes, in most cases, are routes used since the late Middle Ages, until the development of the current road network dating back to the end of the nineteenth century. At times the medieval paths coincide with ancient Etruscan - Roman roads, easily recognizable by the typical cobblestones.

The route is developed through a ring of about 380 km connecting the Romagna and the Casentino, for a total of 20 fixed stages. The Tomba di Dante in Ravenna, and the Museo Casa di Dante in Florence represent

Image 19: Map of the Cammino di Dante

the two extremes of the route-starting and finishing points.

The *Cammino di Dante* is therefore not just a trekking route, but also a cultural, artistic, philosophical and spiritual journey between Ravenna and Florence.

The *Divina Commedia* is born in this dimension, full of characters, fauna, castles, landscapes, and the doubts that every man poses through a journey, relating to his own self.

Since the project is only hypothetical there is no right or wrong, just an attitude and plausible choice for the site and the building task.

The idea is to make the project part one of the stages of the *Cammino di Dante*, the museum as part of the spiritual journey. Florence and Ravenna are the two cities that most represent Dante, as the first is his hometown from which he was then exiled, and the second the city where he spent the last years of his life and ultimately died. Both are big cities and according to my criteria not suited as the site for a new museum. They are connoted as places with numerous museums and a type of urban and city culture, for this reason locating the site in big cities is incoherent with the idea of the path. Other than the character of the places, instead of further developing big cities, the attempt is to promote and develop small localities and a different kind of tourism. In-between Firenze and Ravenna there are many historical villages and among them, one is particularly suitable as a location, mainly due to the symbolic value it contains. It is the Piana dei Romiti, near the Acquacheta waterfall and the city of San Benedetto in Alpe, halfway between Florence and Ravenna.

"Halfway" is not only referred to the geographical position between the two cornerstone cities but also as "the midway of this our mortal life".[30]

The Acquacheta waterfall is also explicitly mentioned in the *Inferno* as a simile with the Flegetonte river:

> Come quel fiume c'ha proprio cammino
>   prima dal Monte Viso 'nver' levante,
>   da la sinistra costa d'Appennino,
>
> Che si chiama Acquacheta suso, avante
>   che si divalli giù nel basso letto,
>   e a Forlì di quel nome è vacante,
>
> Rimbomba là sovra San Benedetto
>   de l'Alpe per cadere ad una scesa
>   ove dovea per mille esser recetto;

Così, giù d'una ripa discoscesa,
  trovammo risonar quell'acqua tinta,
  sì che 'n poc'ora avria l'orecchia offesa.

Inferno, Canto XVI, vv. 94-105

Even as that stream which holdeth its own course
  The first from Monte Veso tow'rds the East,
  Upon the left-hand slope of Apennine,

Which is above called Acquacheta, ere
  It down descendeth into its low bed,
  And at Forlì is vacant of that name,

Reverberates there above San Benedetto
  From Alps, by falling at a single leap,
  Where for a thousand there were room enough;

Thus downward from a bank precipitate,
  We found resounding that dark-tinted water,
  So that it soon the ear would have offended.

Inferno (Hell), Canto XVI, vv 94-105

The reverberation of the water that opens the Canto, in the long simili-
tude becomes so strong as to be unbearable for the hearing. The acoustic
brutality of the river Flegetonte that is characteristic of the place, beco-
mes a line of conjunction between the Cerchio (Circle) VII and the next
part of Hell, the real fund of the funnel, where the worst sinners are
gathered.
Although the waterfall is represented in the infernal Cantica, the location
does not actually have a negative connotation, but rather that of an idyllic
natural place with a symbolic added value.

The village of San Benedetto in Alpe is known as the starting point for the
excursion to the Acquacheta waterfall, though the peak and turning point
of the excursion is the Piana dei Romiti, which is a plane in the middle of
the mountains right above the waterfall. Besides being a turning point,
the plain is also a crossroads of hiking trails and has a marvellous view
over the valley.
As a result, the Piana dei Romiti is an interesting point for me to build the
museum on. From the topographical point of view at the bottom of the
valley are the historic centres such as San Benedetto in Alpe at an altitude

of 485 m, in the mountain slopes up to 730 m altitude are ruins of castles, while above that there are high altitude pastures, chestnut woods, oak woods, cultivate of alpine characteristics.

The path to reach the Piana takes about two hours and is considered an easy walk. While there is the possibility to reach the place by car, the trekking route lies more in the foreground since it provides a fuller experience. The museum would be part of the walk, meeting point of pathways but also a turning point and place of contemplation.
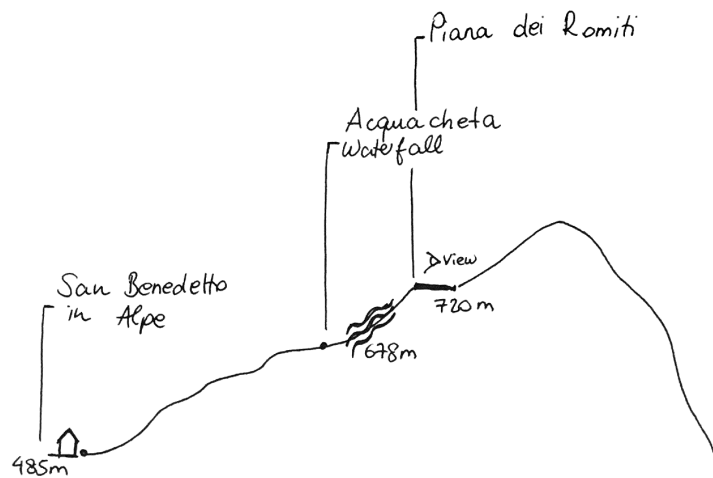
Image 20: Diagram of altitude

III. Context analysis

In addition to the symbolic value of the place, an analysis of the context is necessary to give plausibility to the project.

San Benedetto in Alpe is located in the Acquacheta river valley between mountains and woods. It is on the border with the province of Florence, between the region of Toscana and Emilia Romagna. It rises in a point of confluence between the Acquacheta, the Rio Destro and the Troncalosso, the three rivers that joining in the center of the village form the river Montone. The economic engine works mostly because of mountain tourism and regional economy.

For the development of the region there is currently an initiative going on called: *Appennino Tosco Emiliano; sostenere gli investimenti per unire*

I territori ed accellerare lo sviluppo. (Tosco Emiliano Apennines: supporting investments to unite the territories and accelerate development). The initiative aims to reiterate the importance of giving value to the area; all this through a system of loans and incentives that allow a real development of the region.

The contents of it, as translated, are the following. It is of general interest, for the tourism economy above all, that the mountain territory is alive, cared for and not abandoned to itself; this to avoid hydrogeological disasters, caused by neglect, which always have disastrous consequences. By 2020, 27 million euros will be invested in this area, and this represents a historic turning point. The destination of the funds is manifold, and does not refer exclusively to the construction of new plants and structures; the final and concrete objective is the realization of a unique Tuscan-Emilian territory for the qualification and expansion of the offer. The necessity is to think of a 360 ° tourism development, the goal must be to create the conditions to attract tourists and visitors both in winter and in other seasons. It will be necessary to put in place mechanisms capable of favouring, also, private investments. It is and it will be the duty of the institutions to dictate the guidelines, in order to guarantee real development. Local businesses represent an irreplaceable resource, but international players can also play a crucial role, as a resource for the growth of the territory. It is essential to work together, in a synergistic way, for a strategic project for the protection and development of the Mountain.[31]

In other words, this strategic initiative relies on the development of mountain tourism as in the combination of sports, enogastronomic, environmental or community character, with the cultural, artistic, historical, philosophical and spiritual one. While the development project has not yet been laid out in detail and explicitly, the bottom line of it all is the concatenation of natural resources, local economy and external (international) participation as the prerequisites for the development of the place.

The *Cammino di Dante* represents and is part of this environmental and cultural tourism, and therefore the site choice for a Museum of the *Commedia*, if not realistic is at least plausible.

IV. Design Layers

The components of the concept that are taken from the poem and transmuted into architectural space act as tools and in this sense it is important to explain how this process works. This is why general explanations of the use of interpretative levels as tools are necessary.

In order to choose the starting point of the design, and therefore the first element to be taken from the semantic field of my superordinate concept of the *Divina Commedia*, I must find an interface where all the involved actors meet.

The common denominator, which links the regional analysis, with that of the place, with the association *Il Cammino di Dante* and the *Divina Commedia* is the journey.

A physical, spiritual and allegorical journey, that is in a more abstract way a movement. And it is precisely the interpretative level from which the first diagram of the creative process springs.

a. Layer of movement

The movement of the allegorical journey of Dante follows mainly a fixed direction in each Cantica (Hell, Purgatory and Paradise), therefore three dimensions of movement plus the additional one of the introduction.

At the beginning of the play Dante finds himself lost inside the dark forest, which is an earthly place where he moves mostly in a horizontal direction.

The second movement takes place in the infernal funnel; so a vertical movement with downward direction. In the following section the journey continues as a climb up the mountain of the *Purgatorio*, the direction and space are inverse to those of *Inferno*. The last movement, which takes place in *Paradiso*, is a further verticality with the same direction as the previous one, namely upwards.

The diagram of Image 21 shows this principle of movement in an abstract way, this obviously only reflects the motion broadly but provides a spatial guideline, a margin.
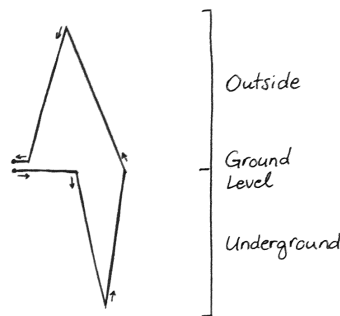
Image 21: Diagram of the principle of movement

The second step is tov connect this principle of movement to the surrounding external space, so to the clearing. To get to the Piana dei Romiti you follow a path bordered by the river, after crossing the waterfall there is a last piece of tree-lined road uphill.

Image 22: Path to the Piana dei Romiti

The impression when you reach the clearing is that you have just crossed the dark forest. The plain, therefore, is on the same level as the horizontal segment and is consequently the beginning of the allegorical journey and at the same time the entrance to the museum.

Image 23: Piana dei Romiti

The following quote shows the first verses of the play, where Dante begins his journey lost in the woods. The way that leads to the Piana dei Romiti presents many similarities from the morphologic aspects, making the way that leads to the museum a perfect introduction from the point of view of the flow.

Nel mezzo del cammin di nostra vita
  mi ritrovai per una selva oscura,
  ché la diritta via era smarrita.

Ahi quanto a dir qual era è cosa dura
  esta selva selvaggia e aspra e forte
  che nel pensier rinova la paura!

Tant'è amara che poco è più morte;
  ma per trattar del ben ch'i'vi trovai,
  dirò de l'altre cose ch'i'v'ho scorte.

Io non so ben ridir com'i'v'intrai,
  tant'era pien di sonno a quel punto
  che la verace via abbandonai

  Inferno, Canto I, vv. 1-12

Midway upon the journey of our life
  I found myself within a forest dark,
  For the straightforward pathway had been lost.

Ah me! how hard a thing it is to say
  What was this forest savage, rough, and stern,
  Which in the very thought renews the fear.

So bitter is it, death is little more;
  But of the good to treat, which there I found,
  Speak will I of the other things I saw there.

I cannot well repeat how there I entered,
  So full was I of slumber at the moment
  In which I had abandoned the true way.

  Inferno (Hell), Canto I, vv. 1-12

Image 24: Diagram of context and principle of movement

From the principle of grand movement, arises a series of spaces that follow each other and are related to each other, in turn, within these spaces there is a concept of subordinate movement such as for example the passage between one place and another or the direction of travel. To develop this there is the need to choose another element of the constellation of the semantic field: environment and atmosphere.

b. Layer of atmosphere

I believe that the atmosphere is mainly composed of three elements: the place, the sensations and the emotions. These elements are products of different interactions between the human being (the self) and the world around us. The place is the material world external to our body, the sensations are the interaction between the external world and the ego, while the emotions are an intrinsic internal movement. The first one is a condition of being, the second an interaction and the third a reaction.
The layer of atmosphere is closely connected to Dante's description of places, sensations and emotions that can be found all through the poem. The journey in the afterlife is a continuous succession of spaces. Dante's descriptions act as amplifiers of the elements that make the atmosphere, in order to make the delivery stronger. This delivery, made of all the afore mentioned elements, can be translated into architecture in the shape of

proportion, direction, ambience, material, surface, light, sight, and so on. The descriptions change with the settings: *Inferno* is very concrete in the language and in the landscape descriptions, effectively rendering the dark and disagreeable environment, in *Purgatorio* the poet describes the landscape as a kind of locus amenus but maintaining images and characteristics typical of Earth. *Inferno* and *Purgatorio* are physical places whose representation has plastic and material traits, since the first was an abyss that opened in the subsoil and the second a very high mountain that stood on an island; *Paradiso*, on the other hand, despite having a precise spatial collocation, is represented by Dante in an abstract, immaterial way, with a description that becomes more rarefied as we ascend and approach God.

Following I will give an example of such description through some parts of the Canto XIII of Hell. The canto XIII is one of the most poignant of the poem, for the painful and tragic theme of suicide. The Canto opens quickly with the two poets (Dante and Virgilio) who abruptly enter a disquieting and threatening landscape. A desolate forest, more a tangle of parched trees than a real forest, and here Dante makes a shocking discovery: in every tree a damned soul is a prisoner because it ended its life through suicide.

> Non era ancor di là Nesso arrivato,
>   quando noi ci mettemmo per un bosco
>   che da neun sentiero era segnato.
>
> Non fronda verde, ma di color fosco;
>   non rami schietti, ma nodosi e 'nvolti;
>   non pomi v'eran, ma stecchi con tòsco.
>
> [...]
>
> Io sentia d'ogne parte trarre guai
>   e non vedea persona che 'l facesse;
>   per ch'io tutto smarrito m'arrestai.
>
> *Inferno, Canto XIII vv. 1-6 and 22-24*

> Not yet had Nessus reached the other side,
>   When we had put ourselves within a wood,
>   That was not marked by any path whatever.

Not foliage green, but of a dusky color,
   Not branches smooth, but gnarled and intertangled,
   Not apple-trees were there, but thorns with poison.

[...]

I heard on all sides lamentations uttered,
   And person none beheld I who might make them,
   Whence, utterly bewildered, I stood still.

Inferno (Hell), Canto XIII vv. 1-6 and 22-24

Image 25: Gustave Dore, *The Suicides*

In the first triplets Dante describes an intricate forest, not traveled by human steps and not beaten by souls of human appearance either.
The beginning of the Canto is strongly rhetorical, and at the same time bristling with hard and harsh sounds, with perfect correspondence between the images proposed by the author's imagination and the stylistic process.
In the following verses Dante feels lost, as a result of the fact that he can hear loud complaints from every direction but he does not see any human figure. He feels helpless in the face of an anomaly in the infernal system, to which he had become accustomed to some extent. The triplet

is a further contribution to the tension of the beginning of the Canto.

To transmute these words into shape I will abide by the following points: passage, tension, discomfort. So a place that through tension is dynamic, where the passerby is guided but at the same time does not feel perfectly at ease. It must not be an isolated place, since from the sensorial point of view one receives impulses (voices and sounds) from different parts and not in the immediate vicinity. A possible formal approach to this is a passage that flows towards a precise direction but at the same time has breaks in this flow: a ramp (flow and direction) that is not circular but composed of lines and edges (breakage) in an open space. This will be the leading principle for the creation of Hell.
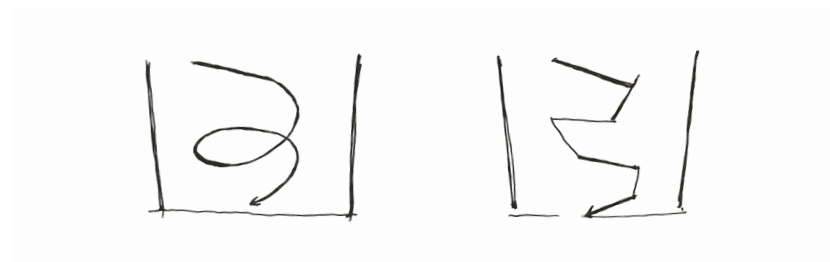
Image 26: Diagram of different flows in an enclosed space

The atmosphere layer gives the main basis for the architectural creation, the following layers complement and enrich it.

c. Layer of language

The layer of language is used as a tool for the development of the surfaces and helps in the sensorial element of the atmosphere.

Dante in the *Commedia* adopts a great amplitude of vocabulary and stylistic registers, from the lowest and "comic" in the medieval sense of the term, to the highest and "sublime": this distinctive trait is called Dantean plurilingualism.

Words and forms can preserve in the text the contextual harmonics that connect them to an environment, to a profession, to a conception of the world: that is, the text can reflect the polyphony of social talk. Consequently it follows that the literary text may not have a unitary language, but should be built on various stylistic units. The *Commedia,* as a "Summa" of the life and culture of the time of Dante, presents an exceptional linguistic sub-group.[32]

By analogy, as well as in the *Commedia* language expression reinforces the delivery, even in the museum the surface expression emphasizes the atmospheric. For a matter of clarity I will use the same verses as before to explain this.

Non e**r**a anco**r** di là Ne**ss**o a**rr**iva**t**o,
  quando noi ci me**tt**emmo pe**r** un bo**s**co
  che da neun **s**entie**r**o e**r**a **s**egna**t**o.

Non **fr**on**d**a **verd**e, ma di colo**r** fo**s**co;
  non **r**ami schie**tt**i, ma nodo**s**i e 'n**v**ol**t**i;
  non **p**omi **v**'er**a**n, ma **st**ec**c**hi con **t**o**s**co.

  Inferno, Canto XIII vv. 1-6

Not yet had Nessus reached the other side,
  When we had put ourselves within a wood,
  That was not marked by any path whatever.

Not foliage green, but of a dusky color,
  Not branches smooth, but gnarled and intertangled,
  Not apple-trees were there, but thorns with poison.

  Inferno (Hell), Canto XIII vv. 1-6

The first verses, where the place is described, are composed by hard and harsh sounds that represent harshness, dryness, and anguished strangeness. The use of rhetorical figures such as anaphora and alliteration create an intertwining of syntax and sound, which stylistically mimics the tangle of the place.

More precisely; the alliteration of strong consonants and doubles such as the repetition of "**r**", "**s**" and "**t**". This aspect can sadly be noticed less in the English version since the language itself is fuller of consonants compared to Italian, though the choice of words with many consonants close to each other such as "**gnar**led" and "in**t**e**rt**an**gled**" helps the delivery of the idea.

In terms of material it translates to a hard, uneven and texturized surface; like rough and dark concrete for example. This means that there will be a distinction of surfaces in different spaces, so as to contribute to giving a specific character to each place. This system also applies to the other spaces of the museum. *Purgatorio*, for example, presents a decidedly less gloomy, more relaxed and serene atmosphere. If the style

of *Inferno* was often hard and harsh, appropriate to the representation of the realm of pain, that of the second Cantica is lighter and humble, without the "tragic" elevation that will be typical of Paradise. This lightness is obviously also reflected in the representation of the penitents and their penalties, which, despite being plastic and physical like that of the damned, does not present the harshness that was proper to the infernal souls. As a consequence the material surface of space will be smoother and the closest to the image of being "common". It's texture and colour will have to be lighter.

In *Paradiso*, the Great Poet is found in front of a great problem: to imagine in the terms of human language a reality that by definition is its overcoming and sublimation. Dante repeatedly emphasizes in the Cantica the extreme difficulty for his human means of giving a complete description of the holy kingdom which represents a superhuman dimension and goes beyond normal earthly capacities. Dante often declares that, even if he makes use of all his poetic ability and all his human inspiration, he can only represent a trace of the spectacle he has witnessed and repeatedly, to give an idea of the things described, he is forced to use of complex mythological similarities hypothesizing situations impossible in nature. This poetic of the inexpressible, as it has been defined, derives in part from Stilnovo and in particular from the poetry of Cavalcanti, who often in his verses declared his own incapacity to fully describe the beauty of the woman-angel.[33] The translation of this in form is therefore a material that has an incorporeal and ethereal effect, that reflects but at the same time has its own character. For example ceramic tiles, treated to have an iridescent sheen that makes it look like a pearl. (As seen in Image 28)

Harsh Inferno   → Edges and irregularity

Noble Paradiso   → Smoothness and symmetry
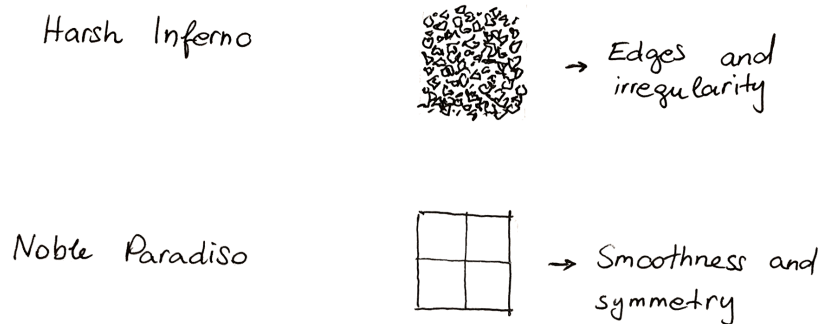
Image 27: Diagram of surface
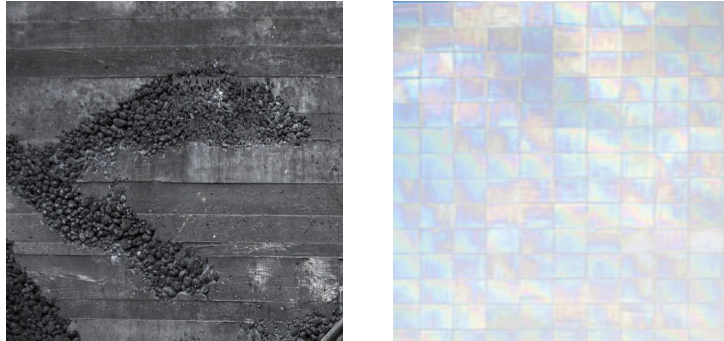
Image 28: Material samples

The development of the relationship between language and surface can be simplified by showing it more abstractly:
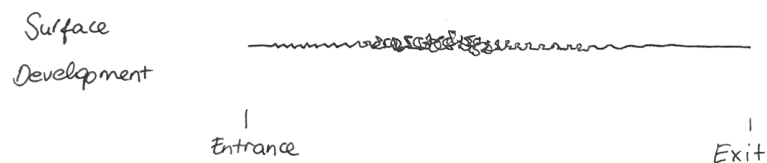
Image 29: Diagram of language and surface

The material and the surfaces are best manifested in contact with the light, an extremely important architectural element and therefore the next design layer.

> Architecture appears for the first time when the sunlight hits a wall. The sunlight did not know what it was before it hit a wall.

> *Louis Kahn*

d. Layer of light

As in architecture, even in the *Commedia* the theme of light is important, connoted as a personification of God, its presence or absence is closely linked to the place in a physical and symbolic way.
Light constitutes for Dante one of the most suitable means for the repre-

sentation of the otherworldly reality. The journey of Dante in the *Commedia* is in fact characterized by a progressive intensification of light, starting from the infernal darkness, which corresponds, on the spiritual level, to the passage from sin to salvation. The contrast between darkness and light is immediately placed in the opening of the poem, in which Dante, lost in a dark forest, tries to get on a hill illuminated by the sun. The *Purgatorio* is characterized by the presence of the sun and its beneficial action, the sun becomes a symbol of God and allows Virgil and Dante to identify access to the mountain. In *Paradiso*, light is not just a symbol but the very substance (physical and poetic) of the celestial kingdom. The creator of all that exists spreads his creative energy everywhere, allowing it to manifest itself in the form of pure light. This light is divided and identified in the infinite forms that precede it, but at the same time it never loses its unity.

Hereafter I propose some passages of the *Commedia*, of the *Inferno* in regards to light.

Quivi sospiri, pianti e alti guai
  risonavan per l'aere sanza stelle,
  per ch'io al cominciar ne lagrimai.

Diverse lingue, orribili favelle,
  parole di dolore, accenti d'ira,
  voci alte e fioche, e suon di man con elle

facevano un tumulto, il qual s'aggira
  sempre in quell'aura sanza tempo tinta,
  come la rena quando turbo spira.

  Inferno, Canto III, vv. 22-30

There sighs, complaints, and ululations loud
  Resounded through the air without a star,
  Whence I, at the beginning, wept thereat.

Languages diverse, horrible dialects,
  Accents of anger, words of agony,
  And voices high and hoarse, with sound of hands,

Made up a tumult that goes whirling on
  Forever in that air forever black,
  Even as the sand doth, when the whirlwind brea-
  thes.

Inferno (Hell), Canto III, vv. 22-30

Dante introduces us into the tragic landscape of hell, immediately reve-
aling some constants: the almost total darkness due to the closing of the
infernal vault, not exposed to the sky, the dark colours and the provoca-
tive sounds of the suffering of the damned.

Light, or the lack of it, can similarly be interpreted in the museum as the
lack of natural light and use of artificial lightning instead. The challenge
is to make a striking space with the use of detailed and little light. This
aspect also serves to the accentuation of the spaces and surfaces. Archi-
tect Louis Kahn has dealt in his work with the issue of light, his ideas
and quotes have been discussed and collected in many writings, such as
Silence and Light, *Light and Space*, *Light is the Theme*, etc. The article *Li-
ght Matters, Louis Kahn and the Power of Shadow* (from the architecture
website *Archdaily*) explains some of his concepts very well:

> And because Kahn believed that the dark shadow is a natural part
> of light, Kahn never attempted a pure dark space for a formal effect.
> For him, a glimpse of light elucidated the level of darkness: "A plan
> of a building should be read like a harmony of spaces in light. Even a
> space intended to be dark should have just enough light from some
> mysterious opening to tell us how dark it really is. Each space must
> be defined by its structure and the character of its natural light." As a
> result, the light as a source is often hidden behind louvers or secon-
> dary walls, thus concentrating attention on the effect of the light and
> not on its origin.[34]

The combination of shadow, natural light and artificial light should be
harmonious and in agreement with its progressive change in the *Com-
media.*
Different lighting levels create hierarchies in the space and accentuate
the particularity of the surfaces. Light can also have a symbolic value; as
the immaterial material, it represents the presence of higher powers and
lends buildings and objects themselves a certin splendour and magnifi-
cence. The direction and height of the light source accentuate the sym-
bolic value, create an aura, whereas the low position of floor washlights
emphasises the mystical and dramatic dimension.
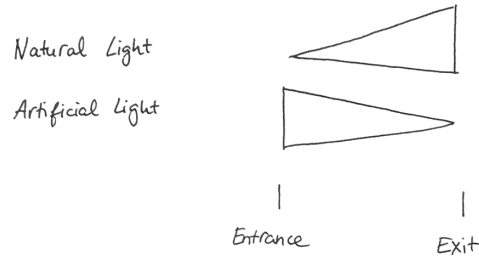
Image 30: Diagram of light

Image 30 shows the development of natural light in comparison to artificial light throughout the museum, from entrance to exit.

V. Design

a. Formal Description

The design of the project follows a path that starts from the before explained interpretative levels and develops in an architectural form. The legends and names used in the plans are mainly in Italian, for this reason I report below the translation of the most important terms:

Selva	Forest
Inferno	Hell
Purgatorio	Purgatory
Paradiso	Paradise

As already said, the museum is a celebration of Dante and the *Divina Commedia* and it is a practical application of my theoretical approach, therefore I have given myself almost no restraints during the designing process.

General description: The museum, as a celebration of the *Divina Commedia* and Dante Alighieri, is located in a symbolic place halfway between Florence and Ravenna and is part of a sporting, cultural and spiritual journey in the middle of nature. The museum is thought of as a series of rooms and movements, like a journey; the path inside it amplifies the vi-

sitor's personal travel experience. The goal is to create a dynamic synergy between architecture and art, thus creating a narrative where every visitor feels like part of a personal and universal story.

Fernando Guerra, a Portuguese architectural photographer (originally trained as an architect) explains this concept of experiencing and inhabiting architecture beautifully:

> Architecture allows man to feel at home, since he is in a world that he has participated in making. In this way, architecture defends the authenticity of human experience. [...]
> Rather than the static moment represented in a photograph, people inhabit architecture with their entire body, through movement, memory and imagination. Space and material, light and shadow, sound and texture, the heavens and horizon are woven together in our experience to become the responsive setting for our daily lives. [...]
> 'We are accustomed to think of physical objects as having bounded edges...Then we unconsciously carry over this belief in the bounded character of all objects of experience... into our conception of experience itself. We suppose the experience has the same definite limits as the things with which it is concerned. But any experience the most ordinary, has an indefinite total seeing.' Memorable architecture involves an embodied experience, determined by the reach and grasp of our hand, the touch of our fingers, the feeling of heat and cold on our skin, the sounds of our footsteps, the stance we have taken and the position of our eye.[35]

Fundamentally, while using the *Commedia* as a design concept, the result of the combination of layers of interpretation from the semantic field is a compact shape, that is half underground and half over. The succession of spaces and therefore different experiences forms a closed circuit that is inserted in the topography according to the characteristics of the place (view, sun, space and flow of movement). The layer of movement gave me the starting point: different directions that by combining and altering lead to a closed movement. The dimensions of the building stem from the use of ramps; as an emblem of flow and continuous movement. Since it is a closed circuit, the alteration of rooms and passages becomes interlocking, creating a plan that visually resembles a Mandala. According to Carl Jung, Swiss psychiatrist and founder of analytical psychology, the Mandala was a symbol of the self; this analogy is well suited to my project as a journey of the self. The interlocking takes place in the third dimension, so that the rooms invade the space of each other, becoming in some cases the negative of one another. This happens above all in the *Inferno* and *Purgatorio*, a chasm and a mountain, one created by the negative

form of the other. The materials and the lights follow one another, giving each space a particular character, which has an effect that is not only visual, but also tactile.

The entrance of the building represents the dark forest, for this reason it is a large space but interrupted by numerous tangible elements (vertical parapets) and not (light), therefore without clear perspectives and direct views. It is a preparatory space, slowed down, as a representative introduction to what will come.

Inferno is reached through a narrow corridor and is a unique room made up of numerous floors. It is a downward path composed of ramps and interrupted by niches that represent small amphitheatres. Formally, the descent is interrupted by corners that contrast the fluidity of the ramps, like an anomaly, which together with the play of surfaces and lights creates an atmosphere that is in tension but at the same time is not uncomfortable. The passage to the purgatory also takes place through a corridor, a reference to the *Natural Burella* of the *Commedia*. The *Purgatorio* is ideally and literally an ascent, a mountain created by the earth coming out of the infernal chasm, hence the negative form of hell. The ramps in the *Purgatorio* alternate from floor to floor in order to always leave a vertical connection that gives a refernce about the place where you are. The feeling of relief of purgatory is given, in addition to the ascent, also by the lighter and smoother materials, which are best prepared for the exhibition of works.

The transition from *Purgatorio* to *Paradiso* takes place through the *Eden*, which is actually a representative, symmetrical and vertical circulation; there is a movement towards a simplification and a vacuum of shapes, accentuated by polished and more refined materials and surfaces. The *Paradiso* is like an abstraction of form and content, in reality it is an open space that consists only of a frame and materials that create a sublime game in combination with nature and sight. *Paradiso* is a place of contemplation. After the paradise, follows a volume mainly characterized by functionality and needs related to a museum, as well as a library and study room that are located in the heart of the volume off the ground.

From the point of view of themes and content, the museum, as a celebration of the *Commedia*, presents the most important aspects of the work but through a contemporary eye, the extralocality mentioned in the previous chapters. One of the main reasons why the *Commedia* transcends its time, is the main theme of the poem, which treats the human condition beyond the religious thought, but as an integral part of the human being. Therefore, it deals with a theme that is paradoxically universal and individual at the same time, as the term "human being" itself suggests, it is a singular word that however means every individual who is part

of the human race. The theme of the human condition will never lose relevance, but it changes and evolves, always taking on new facets, while maintaining transcendent traits. Additionally the theme is more present than ever, since there is a shift in paradigm of the schemes of values and morality in our society. The human condition is themed in the museum in the *Inferno* room, where the exhibition is conceived on a performative level and exchange of any kind between human beings, as a more direct key to teaching and mutual understanding.

The second contemporary and still relevant aspect of the *Commedia* is the inheritance and therefore the transcendence itself of the poem and its author. In the *Purgatorio* the works inspired and referred to the *Divina Commedia* are then shown in temporal order. This involves an alternation of different mediums, which also show the breadth and diversity of Dante's influence.

The *Paradiso*, on the other hand, is an introspective place whose theme is the contemplation of the ego and the opposition of this to the vastness of nature, hence the creation a sublime moment.

Lastly, the museum is also conceived as a place for study and research, independent and interdependent to the artistic and exhibition aspect.

b. *Selva*

The atmosphere of the *Selva* is well represented in the first verses of the *Commedia*, where Dante describes how he lost his way in the forest, literally and figuratively.

> Nel mezzo del cammin di nostra vita
>   mi ritrovai per una selva oscura,
>   ché la diritta via era smarrita.
>
> Ahi quanto a dir qual era è cosa dura
>   esta selva selvaggia e aspra e forte
>   che nel pensier rinova la paura!
>
> Tant'è amara che poco è più morte;
>   ma per trattar del ben ch'i'vi trovai,
>   dirò de l'altre cose ch'i'v'ho scorte.
>
> Io non so ben ridir com'i'v'intrai,
>   tant'era pien di sonno a quel punto
>   che la verace via abbandonai
>
>   *Inferno, Canto I, vv. 1-12*

Midway upon the journey of our life
  I found myself within a forest dark,
   For the straightforward pathway had been lost.

Ah me! how hard a thing it is to say
  What was this forest savage, rough, and stern,
   Which in the very thought renews the fear.

So bitter is it, death is little more;
  But of the good to treat, which there I found,
   Speak will I of the other things I saw there.

I cannot well repeat how there I entered,
  So full was I of slumber at the moment
   In which I had abandoned the true way.

Inferno (Hell), Canto I, vv. 1-12

The importance of the first verse of the first Canto of the poem, that is a proemial Canto, which means an introduction to the entire work, suggests that its meaning is broader and not restricted to the story of the individual Dante, but regards the whole humanity, of which the *Commedia* represents the symbolic journey. The author is physically lost in the dark forest and spiritually lost in the midpoint of his life.

Per analogy the entrance to the museum is an introductory space, that leads slowly to the beginning of the actual journey through the exhibitions. From the spatial point of view, there is a strong sense of direction that is fragmented and slowed down thanks to ramps wrapped around themselves. The slowed down flow allows the visitor to get introduced to the content of the museum that is explained and exposed on the walls. From the negative feelings that Dante experiences in the place I only take the sense of being lost, emphasized other than the ramps thanks to random vertical elements of wood and light. The lighting is spread through the ceiling, with combination of spots of artificial light and holes where natural light breaks through.

c. Entrance to the *Inferno*, *Lasciate ogne speranza*

Dante and Virgilio arrive in front of the door of Hell, on which stands a dark colored writing. It warns those who are about to enter, warning that this door will last forever and that once surpassed there is no hope of going back.

"Per me si va ne la città dolente,
  per me si va ne l'etterno dolore,
  per me si va tra la perduta gente.

Giustizia mosse il mio alto fattore:
  fecemi la divina podestate,
  la somma sapienza e'l primo amore.

Dinanzi a me non fuor cose create
  se non etterne, e io etterno duro.
  Lasciate ogne speranza, voi ch'intrate."

Inferno, Canto III, vv. 1-9

"Through me the way is to the city dolent;
  Through me the way is to eternal dole;
  Through me the way among the people lost.

Justice incited my sublime Creator;
  Created me divine Omnipotence,
  The highest Wisdom and the primal Love.

Before me there were no created things,
  Only eterne, and I eternal last.
  All hope abandon, ye who enter in!"

Inferno (Hell), Canto I, vv. 1-12

The entrance to the Inferno is a memorable part and one of the most quoted bits of the poem; it is often commonly used to prepare for upcoming hardships. This passage needs therefore to be representative and striking, elements I tried to achieve through the combination of shape, proportion, material and light.

The ceiling of the last stretch of the forest closes abruptly in the form of a trapezium and creates a forced perspective that guides the eye and then the body towards the threshold of the corridor that leads to the *Inferno*. This important movement also has an effect on the external volume of the building, which manifests itself as a body that emerges from the ground and suggests that there is something underground. The corridor is dark and the visitor is led through it thanks to artificial light located at the bottom of the sides of the wall. The light positioned in this way adds drama to the walls, as the texture of the cement worked in a rivudo manner is accentuated through a play of light and shadow. The positioning

of the lighting at the bottom, so often used in sacral contexts, will also continue in the spaces of the *Inferno*, where in addition to accentuation and enhancement of the rough surfaces it also presents a symbolic dimension of the lack of "Good" from above.

d. *Inferno*

The *Inferno* is a place in the museum that is dynamic through tension, where the passerby is guided but at the same time does not feel perfectly at ease in representation of the hardships of the journey, necessary in order to be able to valorize the following parts of it and the reaching of the goal. It must not be an isolated place, since from the sensorial point of view one receives impulses (voices and sounds) from different parts and not in the immediate vicinity. The ramps represent flow and breakage in the apparently open space. This is the leading principle of the Inferno.

> Così discesi del cerchio primario
>   giù nel secondo, che men loco cinghia
>   e tanto più dolor, che punge a guaio.
>
> *Inferno, Canto V, vv. 1-3*

> Thus I descended out of the first circle
>   Down to the second, that less space begirds,
>   And so much greater dole, that goads to wailing.
>
> *Inferno (Hell), Canto V, vv. 1-3*

The verses show an explicit description of the circular structure of the Inferno, it is the passage between the first and second circle.
Dante does not present to the reader once and for all the conformation of hell: he continues, instead, from canto to canto, to provide indication on the circle he is visiting. Thus from these verses we can have confirmation of the inverted funnel shape of the infernal cavity, so that each circle has a smaller circumference than the previous one and greater than the next, but contains suffering inversely proportional to the dimensions.

> Noi ricidemmo il cerchio e l'altra riva
>   sovr'una fonte che bolle e riversa
>   per un fossato che da lei deriva.

L'acqua era buia assai più che persa;
  e noi, in compagnia de l'onde bige,
  intrammo giù per una via diversa.

[...]

Così girammo de la lorda pozza
  grand'arco, tra la ripa secca e'l mézzo,
  con li occhi vòlti a chi del fango ingozza.
  Venimmo al piè d'una torre al de sezzo.

  Inferno, Canto VII, vv. 100-105 and 127-130

We crossed the circle to the other bank,
  Near to a fount that boils, and pours itself
  Along a gully that runs out of it.

The water was more sombre far than perse;
  And we, in company with the dusky waves,
  Made entrance downward by a path uncouth.

[...]

Thus we went circling round the filthy fen
  A great arc 'twixt the dry bank and the swamp,
  With eyes turned unto those who gorge the mire;
  Unto the foot of a tower we came at last.

  Inferno (Hell), Canto VII, vv. 100-105 and 127-130

Verses 100-105 constitute a worthy prelude to the apocalyptic view that the V circle reserves to the wanderer: a landscape dominated by dark and seething slime, as well as the black and angry souls of the damned who are immersed in it. The quotes from the Canto VII show another description of the circular movement in downward direction and they end with the appearance of a tower, yet another geographical description. Verses such as these determine the direction and flow of the movement.

Ed elli a me: "Tu sai che 'l loco è tondo;
  e tutto che tu sie venuto molto,
  pur a sinistra, giù calando al fondo,

non se' ancor per tutto'l cerchio vòlto;
  per che, se cosa n'apparisce nova,
  non de' addur maraviglia al tuo volto".

Inferno, Canto XIV, vv. 124-129

And he to me: "Thou knowest the place is round,
  And notwithstanding thou hast journeyed far,
  Still to the left descending to the bottom,

Thou hast not yet through all the circle turned.
  Therefore if something new appear to us,
  It should not bring amazement to thy face."

Inferno (Hell), Canto XIV, vv. 124-129

Virgilio makes an observation to Dante telling him that the chasm is round; and even if Dante has walked a good distance, going downwards to the left, he has not yet covered the whole circumference: so, if he sees something new, he absolutely must not be astonished. They talk about the precise direction they are moving, to the left, and puntualize that there is still so much to see that Dante shouldn't get scared of new things. Analogously the ramps in the museum move exclusively on the left side in the Inferno and the open is invaded by volumes so as to not let everything be seen at once. Every section and angle are different one from the other. In terms of atmosphere the room gives a lot of impulses to the viewer, the space of perception is in fact very wide since you are in a single room. However, the room is interrupted by continuous anomalies, at no point can you have a view of the total. In addition to the tension of the forms, light and materials, games and variations of exposed concrete with a coarse-grained surface treatment also give the atmosphere. The material does not affect only the sight but also the touch, as you notice its texture and structure by touching it and walking on it. The character of the material is underlined and enhanced by the use of little artificial light, designed according to guidelines of sacral buildings.

The exhibition in *Inferno*, as already mentioned, puts man at the center and aspires to be a place of exchange, growth, understanding and above all discussion. In a contemporary situation of chaos given by a change in the paradigm of our values as individuals and society, mutual exchange is fundamental for the search for truth. For this reason the niches and the amphitheater are designed as stages on which, depending on the

proposed theme, there is an exchange of any kind between people, a mixture of "habitus". As for analogy in the *Divina Commedia*, Dante learns and grows personally through contact (often even unwanted) with the damned and characters mainly contemporary to him. For this reason the transcendence of the structure of the *Commedia* and of the dantesque themes is transposed into the contemporary context, developing them further and thus assuming an extra-local character.

In Canto V, for example, Dante meets Paolo and Francesca, two souls who fly coupled in the circle of the lustful who are beaten relentlessly from one side to the other of the circle. Dante identifies with the sad affair of the two lovers, since he too nearly fell into sin because of his love for Beatrice. In fact, while Francesca speaks, Paolo remains silent and cries while Dante is overwhelmed by his turmoil and faints.

> Quando leggemmo il disiato riso
>   esser basciato da cotanto amante,
>   questi, che mai da me non fia diviso,
>
> la bocca mi basciò tutto tremante.
>   Galeotto fu'l libro e chi lo scrisse:
>   quel giorno più non vi leggemmo avante".
>
> Mentre che l'uno spirito questo disse,
>   l'altro piangea; sì che di pietade
>   io venni men così com'io morisse.
>   E caddi come corpo morto cade.
>
> *Inferno, Canto V, vv.133-142*

> Whenas we read of the much longed-for smile
>   Being by such a noble lover kissed,
>   This one, who ne'er from me shall be divided,
>
> Kissed me upon the mouth all palpitating.
>   Galeotto was the book and he who wrote it.
>   That day no farther did we read therein."
>
> And all the while one spirit uttered this,
>   The other one did weep so, that, for pity,
>   I swooned away as if I had been dying,
>   And fell, even as a dead body falls.
>
> *Inferno (Hell), Canto V, vv.133-142*

e. Corridor to *Purgatorio*, *Natural Burella*

> Quando noi fummo là dove la coscia
>   Si volge, a punto in sul grosso de l'anche,
>   lo duca, con ftica e con angoscia,
>
> volse la testa ov'elli avea le zanche,
>   e aggrappossi al pel com'om che sale,
>   sì che'n inferno i' credea tornar anche.
>
> [...]
>
> Io levai li occhi e credetti vedere
>   Lucifero com'io l'avea lasciato,
>   e vidili le gambe in sù tenere;
>
> e s'io divenni allora travagliato,
>   la gente grossa il pensi, che non vede
>   qual è quell punto ch'io avea passato.
>
> [...]
>
> Non era camminata di palagio
>   là 've eravam, ma natural burella
>   ch'avea mal suolo e di lume disagio.
>
> *Inferno, Canto XXXIV, vv.76-81, 88-93 and 97-99*

> When we were come to where the thigh revolves
>   Exactly on the thickness of the haunch,
>   The Guide, with labor and with hard-drawn breath,
>
> Turned round his head where he had had his legs,
>   And grappled to the hair, as one who mounts,
>   So that to Hell I thought we were returning.
>
> [...]
>
> I lifted up mine eyes and thought to see
>   Lucifer in the same way I had left him;
>   And I beheld him upward hold his legs.
>
> And if I then became disquieted,
>   Let stolid people think who do not see
>   What the point is beyond which I had passed.

[...]

It was not any palace corridor
  There where we were, but dungeon natural,
  With floor uneven and unease of light.

Inferno (Hell), Canto XXXIV, vv. 76-81, 88-93 and 97-99

The transition from hell to purgatory takes place through a long and narrow corridor called *natural burella*. Dante and Virgilio pass from the bottom of Lake Cocito, clinging to the hairs of Lucifer and suddenly find themselves upside down and enter the burella. Lucifer is reduced in canto XXXIV to a passive ladder of service, does not oppose the least resistance and can be used without difficulty that are not those of any other descent. The movement described in the v. 79: Turned round his head, because with it he does not simply turn towards Lucifer's legs but changes the direction of the journey, abandons the *Inferno* and turns back towards the *Purgatorio*. This is borne out not only by the labored effort he has to make to turn around (v.78), but by the very fact that he will have to climb as soon as he ascends, so that Dante will believe he is going back into hell. In the museum the passage between hell and purgatory takes place through a corridor that clearly divides the two spaces, and seals them off in such a way as to underline the relationship between one room and another. The treatment of the wall material is less coarse and the light source comes from above.; as to signifiy and lead the change of the identity of the rooms, connoted from now on in a better way with a lighter atmosphere.

f. *Purgatorio*

Compared to the first Cantica, *Purgatorio* presents a decidedly less gloomy, more relaxed and serene atmosphere that manifests itself from the beginning. If the style of the *Inferno* was often harsh and hard, appropriate to the representation of the realm of pain, that of the second Cantica is lighter and "elegiac", without even the "tragic" elevation that will be proper to *Paradiso*.

Dolce color d'oriental zaffiro,
  che s'accoglieva nel sereno aspetto
  del mezzo, puro infino al primo giro,

a li occhi miei ricominciò diletto,
  tosto ch'io usci' fuor de l'aura morta
  che m'avea constristati li occhi e 'l petto.

[...]

I' mi volsi a man destra, e puosi mente
  a l'altro polo, e vidi Quattro stelle
  non viste mai fuor ch'a la prima gente.

Goder pareva 'l ciel di lor fiammelle:
  oh settentrional vedovo sito,
  poi che private se' di mirar quelle!

  Purgatorio, Canto I, vv. 13-18 and 22-27

Sweet colour of the oriental sapphire,
  That was upgathered in the cloudless aspect
  Of the pure air, as far as the first circle,

Unto mine eyes did recommence delight
  Soon as I issued forth from the dead air,
  Which had with sadness filled mine eyes and breast.

[...]

To the right hand I turned, and fixed my mind
  Upon the other pole, and saw four stars
  Ne'er seen before save by the primal people.

Rejoicing in their flamelets seemed the heaven.
  O thou septentrional and widowed site,
  Because thou art deprived of seeing these!

  Purgatorio (Purgatory), Canto I, vv. 13-18 and 22-27

At the beginning of the Cantica of the *Purgatorio*, the first information
that is offered to the poet is visual, as he and Virgil are back outdoors
after the terrible descent into the Inferno and Dante can breathe fresh air
again, admiring the sky before dawn which is of a beautiful intense blue.
In the sky not yet illuminated by the sunshine four stars, whose intense
light strikes Dante.
The relieving sense perceived when the two travellers come out of the
Inferno is connected to the insertion of the natural factor; the sapphire

coloured sky (v. 13), the stars, the mountain and the water. By analogy and necessity, in the museum there is also the need for a sigh of relief that refers to the external world as we are in the passage between hell and purgatory, the deepest point of the building. Water is a suitable element to lighten the atmosphere, so the beginning of the *Purgatorio* is positively connoted in preparation for the ascent.

The overturning of Lucifer and the two hemispheres is represented by the fact that *Purgatorio* evolves and climbs around the volume of hell. The oblique wall, as well as giving a sense of movement within the two spaces, is also representation and sign of the presence of both rooms, as if one was the negative space of the other.

The following quotes represent the most important descriptive elements of the Purgatory, namely nature and atonement, salvation comes but there is a price to pay for it; hard work. In the museum this is represented through the presence of natural light coming from the roof and the ascension through ramps, where the exhibition is placed.

> Venimmo poi sul lito diserto,
>   che mai non vide navicar sue acque
>   omo, che di tornar sia poscia esperto.
>
> *Purgatorio, Canto I, vv. 130.132*

> Then came we down upon the desert shore
>   Which never yet saw navigate its waters
>   Any that afterward had known return.
>
> *Purgatorio (Purgatory), Canto I, vv. 130.132*

> Noi divenimmo intanto a piè del monte;
>   quivi trovammo la roccia sì erta,
>   che 'ndamo vi sarien le gambe pronte.
>
> *Purgatorio, Canto III, vv. 46-48*

> We came meanwhile unto the mountain's foot;
>   There so precipitate we found the rock,
>   That nimble legs would there have been in vain.
>
> *Purgatorio (Purgatory), Canto III, vv. 46-48*

Mentr che sì per l'orlo, uno innanzi altro,
  ce n'andavamo, e spesso il buon maestro
  diceami: "Guarda:giovi ch'io ti scaltro";

feriami il sole in su l'omero destro,
  che già, raggiando, tutto l'occidente
  mutava in bianco aspetto di cilestro;

Purgatorio, Canto XXVI, vv. 1-6

While on the brink thus one before the other
  We went upon our way, oft the good Master
  Said: "Take thou heed! suffice it that I warn thee."

On the right shoulder smote me now the sun,
  That, raying out, already the whole west
  Changed from its azure aspect into white.

Purgatorio (Purgatory), Canto XXVI, vv. 1-6

Compared to the previous realm of pain, where the damned suffer eternally, in purgatory the penitents are not relegated to a frame for eternity but move upwards towards salvation. At the entrance and exit of each frame there are examples of virtue and sin; they are either visually represented, declared by voices or penitents or represented with visions. The transition from one frame to another is ensured by stairs, sometimes steep and difficult to climb; the direction of movement is on the right, as a symbol of the "Good" in juxtaposition to the left direction of the *Inferno*. Per analogy, the *Purgatorio* in the museum is atmosphere-wise a follow up of spaces that are connected but don't interfere with each other like in the *Inferno*, giving a sense of calmness because of less inputs at the same time. There is not a 360° view, only a vertical connection to what surrounds you. The space is brighter; the materials are lighter in colour and smoother in surface. They are though still on the rough side, the walls show the structure of the construction of concrete and are in a way true to its nature, they can be interpreted as the equivalent of the linguistic register.

From the point of view of the exhibition in the *Purgatorio* will be represented the legacy of Dante and his work, as said before. Therefore, works are exhibited that represent the *Divina Commedia* in popular culture ordered in a temporal way, just as the *Purgatorio* is the only realm where

time flows and symbolizes the one closest to the earthly world. The exhibition varies between literary works, sculptures, visual art, architecture, music, cinema and television, games, animation and graphic novels spread throughout the climb.

g. Corridor to *Paradiso*, *Eden*

The journey into the *Purgatorio* is characterized by the timing of the days and therefore the passing of time; during the night, in fact, one can no longer move and climb upwards. The following verses are the beginning of the climb towards the end of the Mount of the *Purgatorio* and the last stop at nightfall:

> Dritta salia la via entro 'l sasso
>   verso tal parte ch'io toglieva i raggi
>   dinanzi a me del sol ch'era già basso.
>
> E di pochi scaglion levammo i saggi,
>   ch'l sol corcar, per l'ombra che si spense,
>   sentimmo dietro e io e li miei saggi.
>
> E pria che'n tutte le sue parti immense
>   Fosse orizzonte fatto d'uno aspetto,
>   e notte avesse tutte sue dispense,
>
> ciascun di noi d'un grado fece letto;
>   ché la natura del monte ci affranse
>   la possa del salir più e 'l diletto.
>
> [...]
>
> Poco parer potea lì del di fori;
>   ma, per quel poco, vedea io le stelle
>   di lor solere e più chiare e meggiori.
>
> Sì ruminando e sì mirando in quelle,
>   mi prese il sonno; il sonno che sovente,
>   anzi che 'l fatto sia, sa le novelle.
>
> *Purgatorio, Canto XXVII, vv. 64-75 and 88-93*

> Straight forward through the rock the path ascended
>   In such a way that I cut off the rays
>   Before me of the sun, that now was low.

And of few stairs we yet had made assay,
  Ere by the vanished shadow the sun's setting
  Behind us we perceived, I and my Sages.

And ere in all its parts immeasurable
  The horizon of one aspect had become,
  And Night her boundless dispensation held,

Each of us of a stair had made his bed;
  Because the nature of the mount took from us
  The power of climbing, more than the delight.

[...]

Little could there be seen of things without;
  But through that little I beheld the stars
  More luminous and larger than their wont.

Thus ruminating, and beholding these,
  Sleep seized upon me,--sleep, that oftentimes
  Before a deed is done has tidings of it.

Purgatorio (Purgatory), Canto XXVII, vv. 64-75 and 88-93

The travelers begin to climb the ladder that leads to the earthly paradise, dug into the rock and facing east, so that Dante realizes he projects his own shadow in front of him as he climbs. They have the time to walk only a few more steps before the sun sets completely, something that they see as the shadow in front of them disappears. At this point, before the night has obscured the whole mountain of the *Purgatorio*, each of them lies on a step, since the law of the ascent has taken away all the strength to proceed even higher. Dante can not see much because of the high wall of the ladder that dominates him, but still manages to see the stars in the sky that seem bigger and brighter. In the end, overcome by fatigue, he falls asleep.

This transition is transmuted into the museum as a place where the ceiling, that is located at ground level, is composed by an alternating rhythm of beams and glass and thus project their shadow in the last stretch of purgatory, like the immaterial material that from now on will become a leitmotif. We then approach the place that precedes the *Paradiso*, *Eden* or the *Earthly Paradise*, whose representation is linked to the classic myth

of the golden age and allows Dante to introduce the character of Beatrice.

> Vago già di cercar dentro e dintorno
>   la divina foresta spessa e viva,
>   ch'a li occhi temperava il novo giorno,
>
> sanza più aspettar, lasciai la riva,
>   prendendo la campagna lento lento
>   su per lo suol che d'ogne parte auliva.
>
> *Purgatorio, Canto XXVIII, vv. 1-6*

> Eager already to search in and round
>   The heavenly forest, dense and living-green,
>   Which tempered to the eyes the new-born day,
>
> Withouten more delay I left the bank,
>   Taking the level country slowly, slowly
>   Over the soil that everywhere breathes fragrance.
>
> *Purgatorio (Purgatory), Canto XXVIII, vv. 1-6*

It is the passage to the last phase of the allegorical journey, the one that will bring Dante to the superhuman heights of the *Paradiso*: here the style rises suddenly, anticipating the preface of the III Canticle in which the poet invokes Apollo's assistance as well as the Muses, as it is convenient to the representation of a place well beyond the comprehensive abilities of the human intellect. It will be the dominant motif of the poetry of *Paradiso*, whose style will be very different from the "middle" one of *Purgatorio*, the realm where the human spirit becomes worthy of going up to heaven.

In terms of space, this transition is designed as a circulation room of grand scale proportions that is characterized by symmetry. The space is developed vertically and consists of the composition of stairs and a lift that create a painting-like image. The light is mainly natural and comes from above, as a sign of approach towards the top or the "Good", from here on, in fact, we find ourselves in the volume above the ground level. The materials follow the concept of ennobling, therefore a clear polished concrete combined with golden elements that give to the senses a lighter and thuerefore completely different input compared to the materials in the previous rooms.

h. *Paradiso*

In the poetic description of the third kingdom of the afterlife Dante clearly differs from the previous literary tradition and chooses a completely new road, which differentiates the third Canticle from the two previous ones. *Inferno* and *Purgatorio*, in fact, were physical places whose representation had plastic and material traits, since the first was a chasm that opened in the subsoil and the second a very high mountain that stood on an island; *Paradiso*, on the other hand, despite having a precise spatial collocation, is represented by Dante in an abstract immaterial way, with a description that becomes more rarefied as we ascend and approach God. The author then deliberately renounces to the traditional iconography that was associated with paradise, the description of angels with white wings or saints surrounding God seated on a throne (a symbolism still quite present in some respects in *Purgatorio*), to rely instead on the effects of light and music, to geometric figures and mathematical images that are as far from any material description.

Dante repeatedly stresses in Cantica the extreme difficulty for his human means of giving a complete description of the holy kingdom which represents a superhuman dimension and goes beyond normal earthly capacities. This difficulty arises above all from the labile memory that has remained in the vision his memory, due to the disproportion between the capacities of his intellect and the height of things seen, and then from the problem of expressing in words what by its nature is indescribable. Dante often declares that, even if he makes use of all his poetic ability and all his human inspiration, he can only represent a trace of the spectacle he has witnessed and repeatedly, to give an idea of the things described, he is forced to use of the complex mythological similarities hypothesizing situations impossible in nature.

> La Gloria di colui che tutto move
>   per l'universo penetra, e risplende
>   in una parte più e meno altrove.
>
> Nel ciel che più de la sua luce prende
>   fu'io, e vidi cose che ridire
>   né sa né può chi di là sù discende;
>
> [...]
>
> O divina virtù, se mi ti presti
>   tanto che l'ombra del beato regno
>   segnata nel mio capo io manifesti,

vedra'mi al piè del tuo diletto legno
    venire, e coronarmi de le foglie
    che la material e tu mi farai degno.

Paradiso, Canto I, vv. 1-6 and 22-27

The glory of Him who moveth everything
    Doth penetrate the universe, and shine
    In one part more and in another less.

Within that heaven which most his light receives
    Was I, and things beheld which to repeat
    Nor knows, nor can, who from above descends;

[...]

O power divine, lend'st thou thyself to me
    So that the shadow of the blessed realm
    Stamped in my brain I can make manifest,

Thou'lt see me come unto thy darling tree,
    And crown myself thereafter with those leaves
    Of which the theme and thou shall make me worthy.

Paradiso (Paradise), Canto I, vv. 1-6 and 22-27

Parev'a me che nube ne coprisse
    lucida, spessa, solida e pulita,
    quasi adamante che lo sol ferisse.

Per entro sé l'etterna margarita
    ne ricevette, com'acqua recepe
    raggio di luce permanendo unita

Paradiso, Canto II, vv. 31-36

It seemed to me a cloud encompassed us,
    Luminous, dense, consolidate and bright
    As adamant on which the sun is striking.

Into itself did the eternal pearl
   Receive us, even as water doth receive
   A ray of light, remaining still unbroken.

   Paradiso (Paradise), Canto II, vv. 31-36

In the verses of the Canto II, driven by the desire to reach the Empyrean, Dante and Beatrice proceed upwards and ascend to the first Heaven of the Moon, where the attention of the poet is immediately attracted by the appearance of the star. The sky appears to the poet as a thick cloud and resplendent, like a diamond illuminated by the sun. The two enter the interior of the sky like a ray of light that passes through the water. Paradise, which detaches itself from all that is earthly, presents a dissolution of form which is absolute light without content. Paradise is the most spiritual manifestation of God.

Oh abbondante grazia ond'io presunsi
   ficcar lo viso per la luce etterna,
   tanto che la veduta vi consunsi!

Nel suo profondo vidi che s'interna
   legato con amore in un volume,
   ciò che per l'universo si squaderna:

sustanza e accidenti e lor costume,
   quasi conflati insieme, per tal modo
   che ciò ch'I' dico è un semplice lume.

La forma universal di questo nodo
   credo ch'i' vidi, perché più di largo,
   dicendo questo, mi sento ch'I' godo.

   Paradiso, Canto XXXIII, vv. 82-93

O grace abundant, by which I presumed
   To fix my sight upon the Light Eternal,
   So that the seeing I consumed therein!

I saw that in its depth far down is lying
   Bound up with love together in one volume,
   What through the universe in leaves is scattered;

Substance, and accident, and their operations,
   All interfused together in such wise
   That what I speak of is one simple light.

The universal fashion of this knot
  Methinks I saw, since more abundantly
  In saying this I feel that I rejoice.

In these verses Dante acquires the courage to sustain the extraordinary vision of the unity of the universe and thus enters his gaze in the infinite, pushing the view to its extreme possibilities. Dante sees in the divine mind the whole Universe bound in a volume, substances, accidents and their relations united together; he perceives the divine essence that unifies created things in a harmonious whole, and speaking of this still today, he feels his joy increase.

Qual è 'l geomètra che tutto s'affige
  per misurar lo cerchio, e non ritrova,
  pensando, quell principio ond'elli indige,

tal era io a quella vista nova:
  veder voleva come si convene
  l'imago al cerchio e come vi s'indova;

ma non eran da ciò le proprie penne:
  se non che la mia mente fu percossa
  da un fulgore in che sua voglia venne.

A l'alta fantasia qui mancò possa;
  ma già volgeva il mio disio e 'l velle,
  sì come rota ch'igualmente è mossa,
  l'amor che move il sole e l'altre stelle.

As the geometrician, who endeavours
  To square the circle, and discovers not,
  By taking thought, the principle he wants,

Even such was I at that new apparition;
  I wished to see how the image to the circle
  Conformed itself, and how it there finds place;

But my own wings were not enough for this,
  Had it not been that then my mind there smote
  A flash of lightning, wherein came its wish.

Here vigour failed the lofty fantasy:
  But now was turning my desire and will,
  Even as a wheel that equally is moved,
  The Love which moves the sun and the other stars.

Paradiso (Paradise), Canto XXXIII, vv. 133-145

In the last verses of the *Divina Commedia*, Dante pauses to observe the second Circle which seems to be the reflection of the first, and seems to see within it the human image, of the same color of the circle and, however, perfectly visible. The poet is similar to the scholar of geometry, who tries in every way to solve the problem of squaring the circle and does not succeed because he lacks a fundamental element: he also tries to understand what the relationship between the image and the circle is, although his forces alone are insufficient. Therefore, he ricochets his own incapacity to understand the mystery of the incarnation of the human in the divine, until his mind is struck by a high brightness that, in a sort of mystical rapture, satisfies his desire. His imagination is now lacking in strength, yet divine love has now placated his will to know, moving it like a rotating wheel that moves smoothly and uniformly.

The *Paradiso* is connoted by order, light and beauty reached through the total abstraction of the human form and the perception of the senses. What the mere human senses can perceice is light, geometrical shapes and music. This abstraction is represented in the museum through a gradual vacuum of form that starts from the *Eden* and culminates in the *Paradiso*, a place aimed at inducing contemplation, a sublime feeling.

The *Paradiso* is located on the highest point of the museum and is an open space with a view towards the Acquacheta Valley. Nature and light are increasingly imposing components as we move away from the realms of the underworld. In this case architecture becomes a frame that amplifies and enhances what is inside it. The elements that make up the frame and therefore the point of view are four surfaces: three walls and a floor. The floor is made of reflective glass while two of the three walls are made of pearly iridescent ceramic tiles. The ceramic tiles with which the façade is covered, have an ethereal aspect as it is a material that reflects but at the same time shines with its own light that changes according to the light and its surroundings. Ceramic surfacing with pearly and iridescent finishing responds the intention of generating a vibrant volume in constant change, due to lighting changes of observatory movements, this solution makes the building vibrate, changing its colour, saturation and profundity. The view is therefore deconstructed as in a kaleidoscope that makes the place surreal and immaterial. The third wall is made of white

polished concrete and has a cut, a slit from which one can look at what is behind it, but whose shadow at the same time takes up the theme of immaterial material, whose subsistence represents the presence of higher powers.

i. Diagrams, Visualizations and Plans

Movement Diagram

Natural Light

Artificial Light

Light Diagram

1- Selva

2- Corridor to the Inferno

3- Inferno

4- Corridor to the Purgatorio

5- Purgatorio

6- Corridor to the Paradiso

7- Paradiso

Diagram of Surface
Wall-Ground-Parapet

Ravenna

Acquacheta
Waterfall

Museum
Commedia

San Benedetto in Alpe

C
C

Montone River

Montone River

Acquacheta River

Troncalosso River

Firenze

Piana dei
Romiti

Museum
Commedia

Acquacheta
Waterfall

San Benedetto in Alpe

Nature

Mountainous slopes,
Ruins of castles

Valley floor,
Historical centres

View on the Valley

Piana dei Romiti

Acquacheta Waterfall

Acquacheta Path

San Benedetto in Alpe,
Historical centre

0   100   1'000m

Section C-C 1:15'000

Acquacheta
Waterfall

Museum
Entrance

Parking

0   10   100m

▼ Walking Path

Site Plan 1:1'500

Purgatorio

Exposition

Exposition

-3,85

-5,05

Inferno

-4,30

-7,65

-4,70

-16,5

Exposition

Niche

-5,60

-9,40

-7,35

-20,30

-3,6

-5,7

Entrance to
the Inferno

-6,90

Niche

-12,8

-6,60

Eden

-3,40

-3,15

-2,40

B

-1,60

B

-0,80

±0,00

Emergency
Exit

±0,00

±0,00

Selva

Cloackroom

A

A

Museum Entrance

0   1   10m

Level 0 1:200

Exposition

Exposition

Niche

Exposition

Niche

Niche

Exposition

Exposition

-5,05

-3,85

-9,00

-16,50

-11,80

-5,60

-9,40

-10,55

-6,60

-9,75

-7,50

-6,60

Emergency
Exit

0   1   10m

Level -1 1:200

Exposition

Exposition

Purgatorio

-11,10

-9,45

-13,00

-16,10

-16,80

-16,50

Niche

Inferno

Light Core

-14,40

-14,05

-15,10

Niche

-12,55

Niche

Exposition

-13,60

Exposition

-13,30

Exposition

-12,55

Emergency
Exit

0 1 10m

Level -2 1:200

Exposition

Exposition

Purgatorio

-16,30

-20,30

-15,05

Niche

-16,80

-19,45

Inferno

Light Core

-20,30

-14,40

Exposition

-17,65

-18,65

Niche

Exposition

-17,65

-18,70

Exposition

Emergency
Exit

0 1   10m

Level -3 1:200

Purgatorio ✛ -20,30

Pond

Inferno ✛ -20,30

✛ -19,45

Amphitheatre
✛ -22,10

Corridor
Natural Burella

Technical Room

✛ -20,30

✛ -20.30

Emergency
Exit

0 1   10m

Level -4 1:200

Roof Purgatorio

Roof Inferno

+1,00

Library and Study Room

+5,40

Eden   -3,40

+5,40

+4,70

Emergency
Exit

+2,00

0   1   10m

Level 1 1:200

Roof Purgatorio

Roof Inferno

+1,00

+12,95   Bar

+9,15

+12,95

-3,40

+12,95

+12,95

+10,20

+11,10   Emergency
Exit

+2,00

+5,40

Library

Paradiso

+8,60   Gallery

Eden

0 1   10m

Level 2 1:200

Paradiso

+20,30

+12,95

Library and Study Room

Gallery

+8,60

+5,40

Selva

Museum Entrance

+0

Entrance to
the Inferno

+1,00

+3,60

+4,30

Exposition

Niche

Exposition

Light Core

Exposition

Exposition

Inferno

Niche

Exposition

Niche

Exposition

Technical
Room

Purgatorio

+20,30

Amphitheatre

Pond

+20,30

+22,10

0 1   10m

Section A-A 1:200

+20,30

Paradiso

+12,95   +12,95

Eden

Library and Study Rooms

+5,40

+0

Selva

-3,40   -3,15

Exposition

-6,60

Exposition

-12,55

Purgatorio

Exposition

-17,65

Technical
Room

Emergency
Exit

-20,30

0 1   10m

Section B-B 1:200

North-West Elevation 1:200

0 1   10m

South-East Elevation 1:200

0 1   10m   North-East Elevation 1:200

South-West Elevation 1:200

Axonometry

Selva

Inferno

Natural Burella
Corridor to the *Purgatorio*

Purgatorio

Paradiso

Conclusion

The use of literature as a superordinate concept has allowed me to have a broad semantic field that has facilitated and made the design process fascinating, allowing me to create links between different disciplines and aspire to greater consistency in light of the complexity of the topic and the discipline. Architecture is very suitable to collaborate with other subjects, and in particular literary architecture, that presents a very large potential yet to be discovered.

In the project, however, a real commission would imply more external elements of influence, and therefore a possible downsizing or adjustment of some aspects. An example of this could be a different context, the regulations, the territorial plans of the place, the budget and so on. This would involve the use of additional interpretive levels of the Commedia but the methodology would remain unchanged because it is applicable in any situation.

On a personal level this work has led me to the formulation of a specific approach, a deepening and clarification of the interdisciplinary method as a result of my studies. As the structure and content of my diploma demonstrates, architecture is not a one-dimensional discipline, just as many others are not; I believe that faced with matters of such complexity, one should have an open approach and an open mind in order to grasp its complexity in the best possible way. This applies above all to matters that are of universal importance and therefore also of a high level of responsibility, as I believe it is architecture. The synergy between technical and intellectual skill is fundamental and this diploma has helped me to become aware of this fact, without arrogantly thinking of having reached the goal, but becoming aware of the fact that we must always and continuously study. The thing I am sure about though is that this approach, as a foundation and a starting point, is legitimate and coherent.

In conclusion, the making of architecture is a matter not to be taken lightly; it is a big responsibility because of the fact that it has a lasting effect on the world and all that it implies. The functional needs and the social, political and economic pressures unfortunately limit the profession, the role and the importance of the figure of the architect are not clear and are conceived in an extremely superficial way. There is a heavy lack of contemplation and critical thinking, simply dismissed as a useless theory belonging only to an intellectual dimension detached from practice. Therefore, the un-tangible dimension of architecture is today unfor-

tunately tragically neglected since thought is not a priority and cannot be monetised, the absence of this creates a heavy lack of awareness and ignorance of too many factors. This involves architecture without a soul and therefore a sterile and narrative-free environment, which then also reflects on our life and legacy. This diploma is an attempt to gain awareness and responsibility towards the profession and its value, a search for a personal critical thought through the development of an alternative method.

Appendix

The contents of the appendix mainly concern some details of the museum design process. Initially material concerning the early stages of conception of form and space; therefore references, sketches and analyzes. As for the production of images, from the point of view of the technique I have used a hybrid method, thus a combination of hand drawings and digital post-work. So I also present the original hand-drawn tables before being digitally processed. The choice of a manual technique that gives an almost illustrative character is linked to the idea of leaving an abstract connotation to the final product and not making it seem too realistic, coherent with the line of thought of the writing.
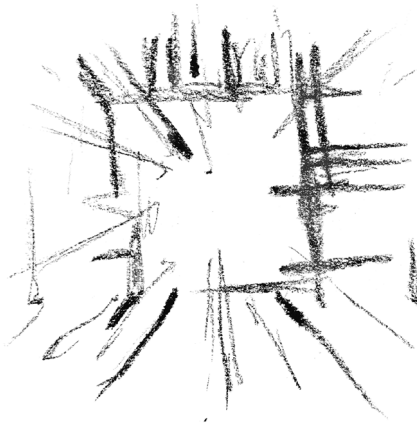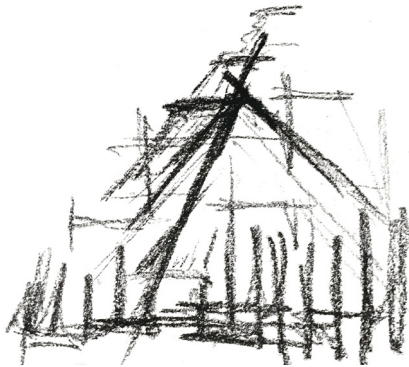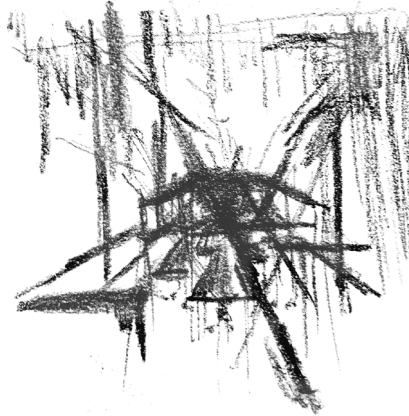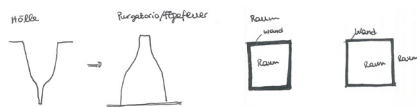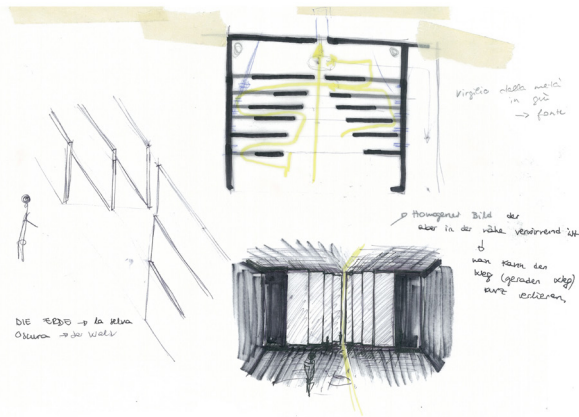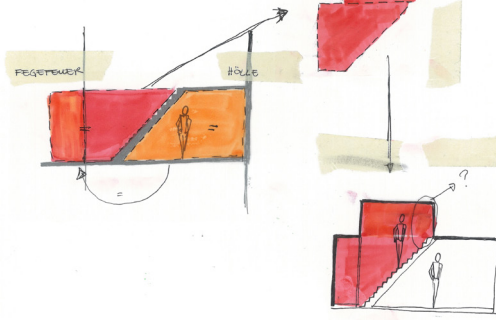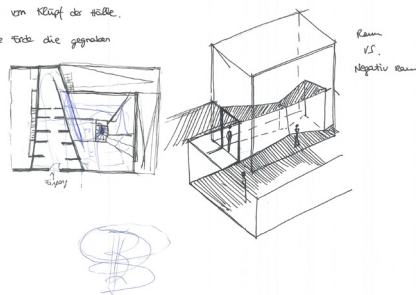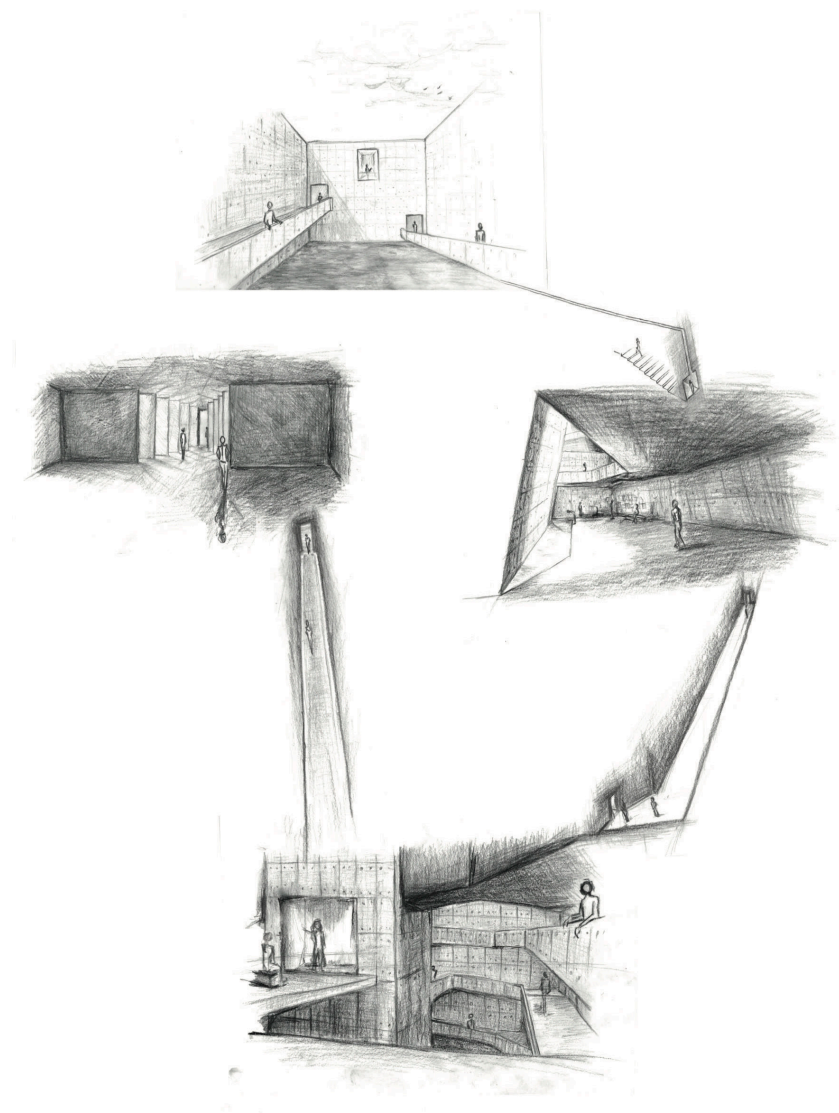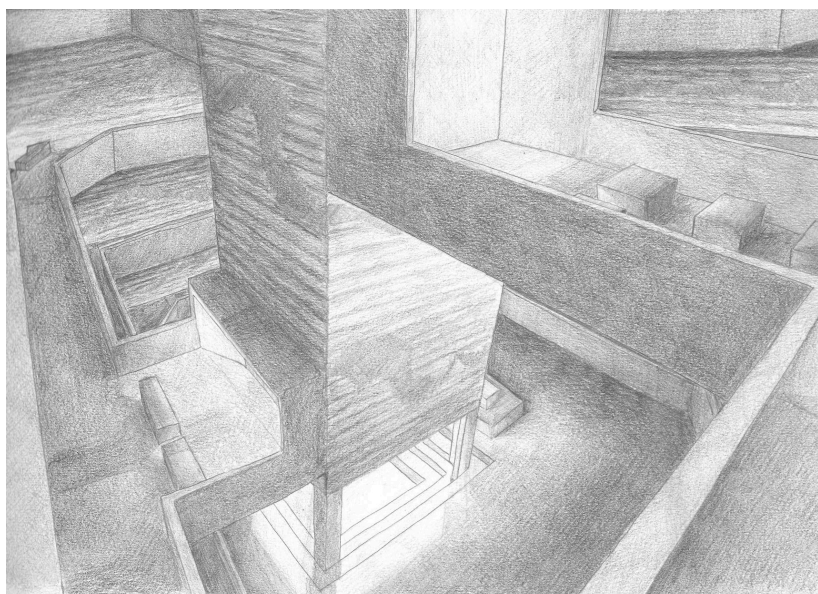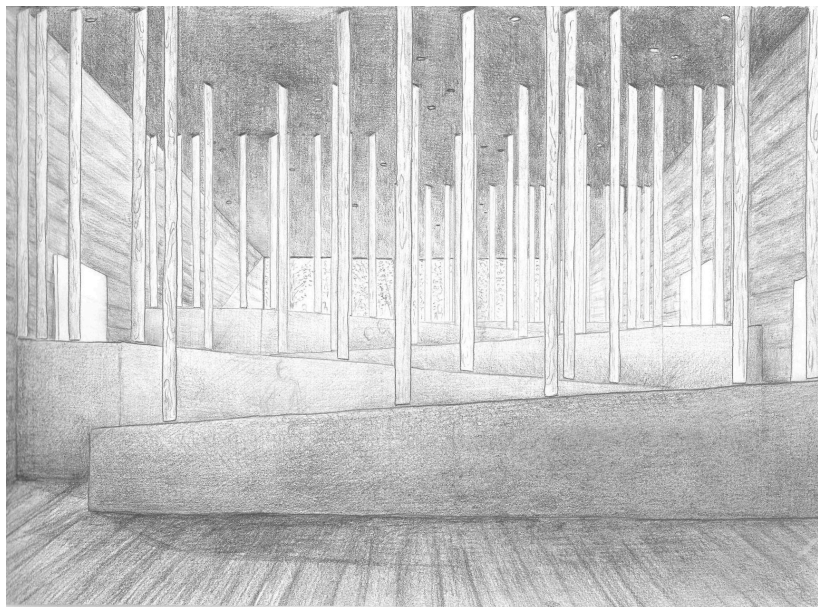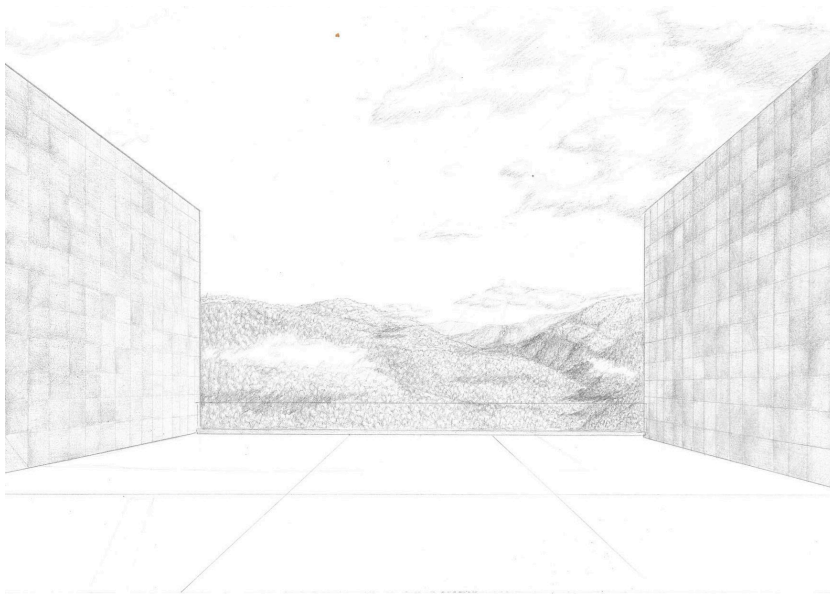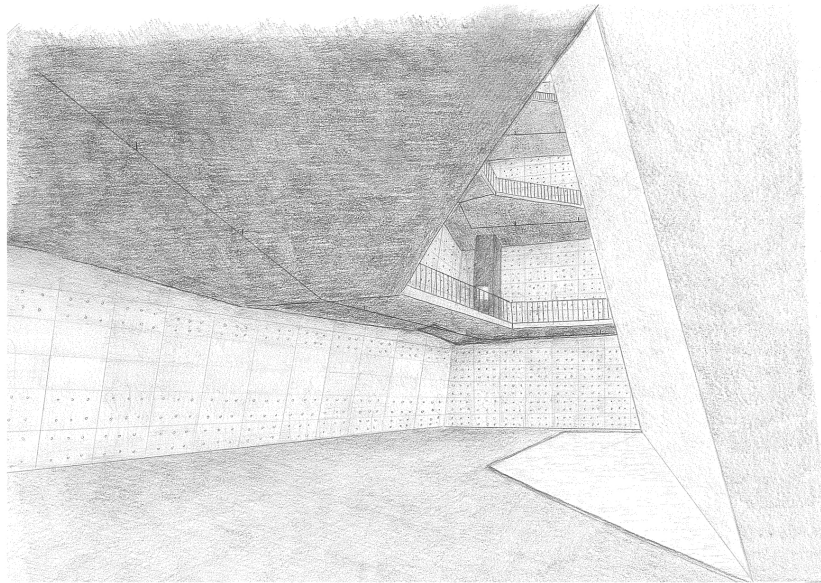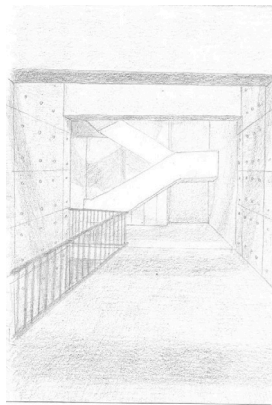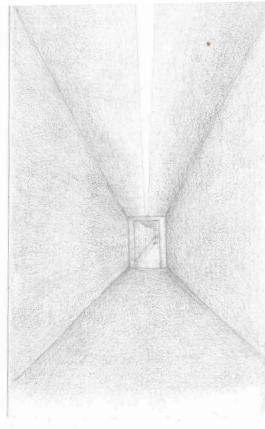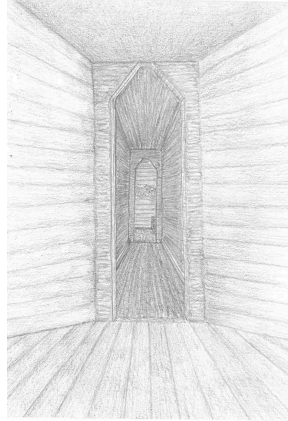
Endnotes

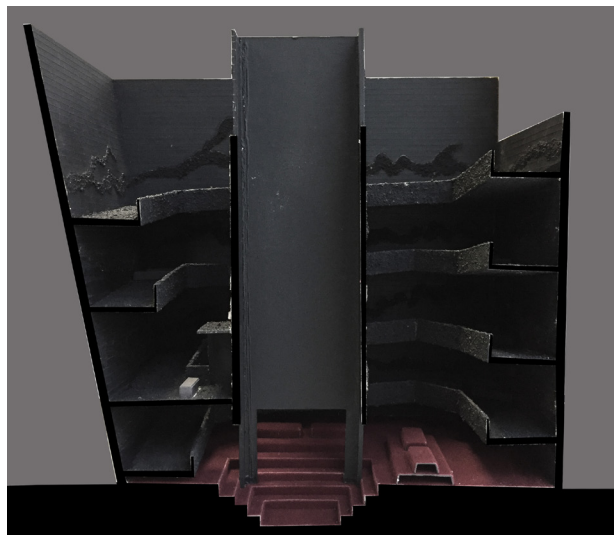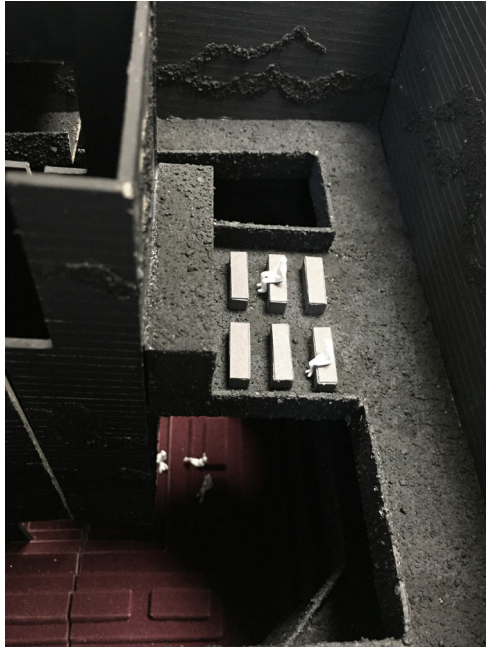[1]   *Oxford dictionary*, URL = <https://en.oxforddictionaries.com/>
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