THE FUNCTION OF REPETITION IN TYPOLOGY

by

Constantine G. Antoniades

Bachelor of Arts
Harvard University
Cambridge, Massachusetts
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Signature of the author

Constantine Antoniades
Department of Architecture
May 13, 1988

Certified by

Yim Lim
Thesis Supervisor

Accepted by

William Hubbard
Chairman
Departmental Committee for Graduate Students
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Constantine G. Antoniades

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Abstract:

The purpose of this thesis will be to attempt an analogy between the topography of architectural production, as witnessed by the evolution and employment of architectural typologies, and the topography of mental production, as proposed by Sigmund Freud. The premises for the analogy will be the assumption that architectural production constitutes part of the cultural production, and the Freudian thesis of the connection between the development of the individual and the development of culture under the domination of the same form of instinctual repression.

The first part of the thesis will examine the role of repetition in the evolution of architectural typology, in parallel to the role of repetition (compulsion to repeat) in the mechanism of instinctual repression of the Freudian model. The analogy will not serve as a claim for the nature of the productive mechanism in architecture, but as a vehicle for the analysis of the participating forces during its operation. The second part will attempt a more direct extrapolation from the development of cultural ideas to the development of architectural ideas during the period of the Enlightenment in the work of Piranesi, Boullee and Ledoux.

Thesis Supervisor: Yim Lim
**Table of Contents:**

Introduction 4

Piranesi's Campo Marzio 6

Antique Rome and Freud's concept of mental life 11

Freud's topography of mental life 16

The function of typology in architectural production 22

Freud's compulsion to repeat 26

The Architecture of the Enlightenment and the Crisis of the Baroque Order 36

The Typological Theories of the Enlightenment 46

The Problem of Proportions in Enlightenment Architecture 53

Utopia and Phantasy 57

The Social Function of Phantasy 60

The Political Function of Phantasy 69

The aesthetic Dimension 72

Sublimation 77

Bibliography 90
**Introduction**

The relationship between the mechanisms of architectural and mental production will be studied in reference to their relation to the function of time, an intrinsic factor in the operation of any mechanism. The time factor, when applied to the productive process, raises the issue of the preservation of the product, both in the sense of its own constitution and its subsequent influence.

The question of preservation of mental life, therefore, becomes particularly important in Freud's investigation. If the dynamics of mental life are involved in its preservation, then an understanding of the process of the latter promises access to the former. In the context of architectural production, preservation facilitates the correspondence between the past and the present, or else, between experience and practice. Both Sigmund Freud and Giovanni Battista Piranesi, the eighteenth century Italian architect and draftsman, have employed the same allegory in expressing the role of preservation in their respective fields: the topography of Ancient Rome.

The urban landscape of the 'eternal city' of Rome, because of its condensation of archeology, history and culture, has served as the first leg of the metaphor for Piranesi and Freud, posing as a figurative but tangible counterpart to their investigation. We will first look at Piranesi's attempt for the reconstruction of the
topography and the remains of the Campus Martius, in a series of plates under the title Campo Marzio dell'antica Roma. Then we will consider Freud's use of the ancient city of Rome as a pictorial representation of the topography of the mental mechanism in order to render perceptible one of its particular characteristics, that of the preservation of mental life.

Freud's and Piranesi's choice of the same model as the vehicle for their communication will be our point of departure in drawing a parallel between the topographies of architectural and mental productions. By examining the forces that come into play in either case, as well as the conditions that accommodate their realization, we may test the feasibility of such an analogy and determine its value as an analytical instrument.
Piranesi's Campo Marzio

Il Campo Marzio dell' antica Roma was the last volume of Piranesi's main archeological work. During the last editing of his Antichita Romane he included Campo Marzio (The field of Mars) in his reconstructions of antique Rome. This part of the city was enclosed by the hills of Mons Pincius and Esquilin and the bow of river Tiber, and during the eighteenth century was considered as the ancient city. His intention was to reconstruct this part in all its ancient glory and to dedicate the plan to his newly aquired friend, the Scottish architect Robert Adam. The work was completed in 1762.

Piranesi granted himself an historical and formal licence in his proceedings with the restoration. The separation of the professions of the architect and the archeologist had not yet occured, making the architect responsible for both the interpretation of history and the reproduction of architecture, as well as the adoption of a critical position through this activity. Piranesi seems to have been fully aware of the relative freedom of his position and to have chosen to exercise it liberally. He covered the area of the Campo Marzio with representative building types from the Imperial Age in no apparent relationship to each other, at least not in the sense of the classical order. Only some of the ingredients of the plan were reconstructed according to the existing archeological finds; they were: "...the area between the Theater of Marcellus and the Portico of Octavia, or the structure of Hadrian's monument, or the more narrow area around the
Pantheon. The Fragments of the plans of Septimius Severus may have provided the stimulation for many other parts."¹

Apart from those elements, few others possess any archeological or even historical reality in their relationships. A vast labyrinth of fragments of typical buildings, temples, theaters, baths, libraries, monuments and gymnasia, in arbitrary association to each other and in complete lack of hierarchical organization forms a continuum of formal collisions in what Manfredo Tafuri has called: "an architectural banquet of nausea."² We are confronted with a multiplicity of forms, some in direct contrast (such as the group dominated by Bustum Cesaris Augusti), some in deliberate mutual dissassociation (as in the triangle formed by the three large piazas joined at the Pons Fabianus), and most of them in arrangements denying the principles of classical organization. On the other hand, through the disarticulated allusions to a classical geometrism, indirect but apparent references are made to the dissolution of the baroque order in the distinctly baroque forms of concave plans, triangles, rhombi and trapezoids. Those forms are characteristic of both buildings and the public spaces between them. Piranesi addresses the disparity in the simultaneous use of the order of both the Imperial and the Baroque ages:

"What I must fear, rather, is that certain aspects of this delineation of the Campo might seem inspired by mere caprice, rather than drawn

¹. N. Miller, Archaelogie des Traums, p.253
². M. Tafuri, The Sphere and the Labyrinth, p.35
from what is real; if someone compares these aspects with the ancient manner of architecture, he will see that many of them break with tradition, and resemble the usage of our own time. But whoever he is, before condemning anyone of imposture, let him observe the ancient plan of Rome mentioned above {the Forma urbis in the Campidoglio}, let him observe the ancient villas of Lazio, the villa of Hadrian in Tivoli, the sepulchres, and the other buildings in Rome that remain, in particular outside the Porta Capena: he will not find more things invented by the moderns, than by the ancients, in accordance with the most rigid laws of architecture."\(^3\)

In the meanwhile, Piranesi informs his friend Robert Adam in his dedication letter that no effort was spared in the precise restitution of the monuments: "I assure you that no part of the Campo was unimportant for me not to examine it repeatedly and thoroughly. I even entered into the basements of the houses... only in case that a minor detail should have escaped my attention... And when I had collected and copied the remains of the buildings with exceptional carefulness, I showed them to the best antiquarians and asked for their opinion."\(^4\)

Tafuri points out the inherent contradiction between the most careful examination of archeological findings and the most absolute arbitrariness in their restitution. Piranesi had indeed made a point of painstakingly researching the sources of his monuments, going to the

\(^3\) G. B. Piranesi, dedicatory letter to R. Adam, "Il Campo Marzio dell'antica Roma (Rome, 1762) p.b2

\(^4\) ibid p.b2
extend of reconstructing the underground foundations of buildings in order to uncover as many layers as possible. He undertook an imaginary excavation of superimposed ruins belonging to different times in history and peeled them off, layer after layer, until he reached the level of the Imperial Age. Then he sank the level of the ground in order to expose the older ruins underneath later buildings. Those endeavours are apparent in the plates of the ruins of Via Flaminia, the Hadrianeum and the Pantheon, as well as in the underground aqueducts and foundations.

As a result of his imaginary excavation, Piranesi uses not only the method of juxtaposition of constructions across time, but of their superimposition as well. Buildings of different ages share the confinement of the same physical space, in a phenomenon of a contraction of space and expansion of time. This method of superimposition sought to achieve the diachronic preservation of elements spanning many centuries, and thus establish a dialectic relationship between history and the present. The method of juxtaposition of elements in the restitution of the Campo Marzio as a 'multigravitational field' encompassing different orders attempted a backward projection of the present order on an older one; that of the Baroque age to that of the classical age. The simultaneous destruction of the rules of both orders exhibited their mutual dissolution. Piranesi's preservation reflects his attitude towards historicism. It becomes a critical instrument against the decadence of the two periods and the ineffectiveness of their forms when confronted with
the issue of urban morphology.
Antique Rome and Freud's concept of mental life.

In Civilization and its discontents, Sigmund Freud launches an investigation of the topography of the ego in relation to the world around it, in order to formulate his theory of the dynamics between the individual and society. One of his departing points is the observation of the ego's susceptibility to disturbances, and of the flexibility of its boundaries. His investigation takes him back in time when, he claims, the adult's ego feeling must have been different. He then attempts to reconstruct the process of development of our ego-feeling, which he hopes to demonstrate with a fair degree of probability.

The process of development of the ego was a process of its detachment from the external world, due to the operation of the reality principle. Initially, there was a primitive pure pleasure-ego, which was the seat of all pleasure sources and which excluded objects of unpleasure through the performance of the pleasure principle. Eventually, the primitive ego realized that external objects could also be pleasant and that parts of the ego itself could lead to the experiencing of pain. It was the first step towards the introduction of the reality principle which dominated future development. The result was a modified ego-feeling, allegedly only a shrunken residue of a much more "inclusive - indeed, an all embracing
feeling which corresponded to a more intimate bond between the ego and the world about it."

The question that Freud raises at this point is whether the feeling of the older, "all-embracing" ego has perished, or if it has survived, along with our present ego, and if we possess the ability to perceive of it:

"But have we a right to assume the survival of something that was originally there, alongside of what was later derived from it? Undoubtedly."\(^6\)

He quotes examples from the animal kingdom where former species coexist alongside the later ones which directly evolved from them (as in the case of the saurians which made way for the mammals and their present representative, the crocodile). The intermediate evolutionary links are available to us only through reconstruction. The question of preservation brings Freud to the more general problem of preservation in the sphere of the mind, which he addresses with the assumption that:

"...in mental life nothing that has once been formed can perish - that everything is somehow preserved and that in suitable circumstances (when, for instance, regression goes back far enough) it can once more be brought to light."\(^7\)

In order to illustrate his assumption, he introduces an analogy from history, in the example of the ancient city of Rome. If an educated visitor were to trace the history of the monuments in Rome he would

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5. S. Freud, Civilization and its Discontents, p.15
6. ibid, p.15
7. ibid p.16
only be guided by what presently still stands or has recently been excavated, as the Aurelian or the Servian wall. The best information available would only point him to the sites of the monuments and not to the actual monuments themselves, which at best can be assumed buried under the modern city.

"Now let us by a flight of the imagination, suppose that Rome is not a human habitation but a psychical entity with a similarly long and copious past - an entity, that is to say, in which nothing that has once come into existence will have passed away and all the earlier phases of development continue to exist alongside the latest one. This would mean that in Rome the palaces of the Ceasars and the Septizonium of Septimius Severus would still be rising to their old height on the Palatine and that the castle of S. Angelo would still be carrying on its battlements the beautiful statues which graced it until the siege by the Goths and so on. But more than this. In the place occupied by the Palazzo Caffarelli would once more stand - without the Palazzo having to be removed - the temple of Jupiter Capitolinus: and this not only in the latest shape, as the Romans of the Empire saw it, but also in its earliest one, when it still showed Etruscan forms and was ornamented with terracotta antefixes. Where the Coliseum now stands we could at the same time admire Nero's vanished Golden House. On the Piazza of the Pantheon of today, as it was bequeathed to us by Hadrian, but, on the same site, the original edifice erected by Aggripa; indeed the same piece of ground would be supporting the church of Santa Maria sopra Minerva and the ancient temple over which it was
built. And the observer would perhaps only have to change the direction of his glance or his position in order to call up the one view or the other." 8

As in the Campo Marzio, we are again confronted with the phenomenon of the contraction of space and the expansion of time. The spatial absurdity of the proposed model and the physical impossibility of the superimposition in space force Freud to abandon his analogical scheme and admit the unfeasibility of pictorial representation in mastering the characteristics of mental life. But even while abandoning it he stumbles upon another analogy, that of the destructibility—due to illness or other pathological but natural causes—of brain tissue containing mental properties, and of the vulnerability of the city to factors such as wars, demolitions and the passage of time. The past analogy helps him to modify his original hypothesis: "We can only hold fast to the fact that it is rather the rule than the exception for the past to be preserved in mental life." 9

Freud eventually abandoned his Roman topographical model, after it served him well not only in conceptualizing and testing his hypothesis but also in effectively conveying it to his reader. In both Freud's and Piranesi's models we have a synchronic overlay of diachronic material, for the purpose of gaining critical access to categories of the mental and the cultural life. Those categories would normally be obscured by multiple levels of developments and interconnections, and

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8. S. Freud, p.17
9. S. Freud, p.19
some of them would not offer themselves accessible to our experience. The issue raised by Piranesi and Freud is that of the preservation of architectural and mental productions, respectively, and of the power that, as historical actuality, they still exercise on the present life, particularly in their potential for recurrence. The analogy between the Freudian and the Piranesian topography will be our first premise for drawing a more general analogy between the mechanisms of mental production and architectural production. Without attempting a scheme of tautology or even causal relatedness we may accept the assumption that the latter is a somewhat accurate representation of the former. As Cassirer and Levi-Strauss hold, there is a deep and hidden collective mental structure which informs the formative activity of man and follows conscious and unconscious models.

In furthering the analogy, we will have to selectively examine some of the forces that come into play in the operation of the two mechanisms and different levels of interaction between them. As a next step we will attempt to draw an outline of the instrumental forces within Freud's topography of mental life.
Freud's topography of mental life

As Freud puts it, the fundamental premise of psycho-analysis is the division of the psychical into what is conscious and what is unconscious. Freud observed that there exist very powerful mental processes which remain unconscious under the influence of a force that he termed repression. The theory of repression led to the concept of the unconscious, having the repressed as its prototype. Further study led to the division of the unconscious into the preconscious, which is the latent part capable of becoming conscious, and the repressed unconscious which does not by itself possess this ability. The repressions proceed from the ego, which is the coherent organization of mental processes in each individual and to which consciousness is attached. However, Freud noticed that part of the ego is also unconscious and is the seat of the repressed material; thus the antithesis between the coherent and the repressed ego. He recognized that "...the Ucs. does not coincide with the repressed; it is still true that all that is repressed is Ucs., but not all that is Ucs. is repressed. A part of the ego, too...undoubtedly is Ucs."\(^{10}\)

Freud next looked at the reception of perceptions, external perceptions (sense perceptions), and internal ones (thought-processes). The sense perceptions are Cs. from the start and are absorbed by consciousness, the surface of the mental apparatus. The

\(^{10}\) S. Freud, The Ego and the Id, p.8
question arises as to how thought-processes become conscious, or, rather, preconscious. Freud answers that:
"...a thing becomes preconscious... through becoming connected with the word-presentations corresponding to it. These word presentations are residues of memories; they were at one time perceptions, and like all mnemic residues they can become conscious again... In essence a word is after all the mnemic residue of a word that has been heard."\textsuperscript{11}

In this last sentence Freud introduces the element of repetition to the function of memory and consequently to the tranference—or should we say ressurection—of thoughts from the Ucs. to the Cs. system. By the repetition of mnemic residues, thought processes are brought back to their original state, that of perceptions and in that way channeled into the Cs. system— as if they came from without.

The id is identified as "the other part of the mind ...which behaves as though it were Ucs. [unconscious]"\textsuperscript{12} Here we notice that Freud has replaced his initial term "pleasure-ego" with the term "id," in German "Das Es," meaning "it," since the primitive man was not yet a self but an it. The ego is identified as "the part of the id which has been modified by the direct influence of the external world through the medium of the Pcpt.-Cs... The ego represents what may be called reason and common sense, in contrast to the id, which contains the passions."\textsuperscript{13}

\textsuperscript{11} S. Freud, p.11
\textsuperscript{12} ibid p.13
\textsuperscript{13} ibid p.15
The term "super-ego" was the third term, after the "ego" and the "id" to be brought into use by Freud as part of the mental topography. The critical function called super-ego constitutes an agency which has become separated from the ego and seems to dominate it. "According to Freud, the formation of the super-ego is a corollary of the decline of the Oedipus complex: when the child stops trying to satisfy his Oedipal wishes, which have been prohibited, he transforms his cathexis of his parents into an identification with them- he internalizes the prohibition."\(^{14}\) Since the Oedipus complex expresses some of the most powerful impulses and most important vicissitudes of the id, it holds true, according to Freud, that the ego forms its super-ego out of the id, as a special agency containing some of the earlier identifications which have taken the place of abandoned cathexes by the id. During the individual's later mental development, the super-ego is subsequently refined by the contributions of social and cultural requirements such as education, religion and morality. In that sense, as the third major institution of the personality, the super-ego represents its moral or judicial branch and strives for perfection rather than for reality or pleasure. It is the representative in mental life of traditional values and ideals of society as they are handed down from parents to children, and in that capacity it functions as an instrument for the enforcement of social organization.

Freud puts forth an analogy between the path of individual development and the process of civilization in his essay Civilization

\(^{14}\) Laplanche and Pontalis, The Language of Psychoanalysis, p.436
and its Discontents. Since the individual's super-ego is connected to the interaction of the urge towards pleasure and the urge towards union with others within the society (a dispute concerning the economics of libido distribution), Freud asserts that:

"...the community, too, evolves a super-ego under whose influence cultural development proceeds... At this point the two processes, that of the cultural development of the group and that of the cultural development of the individual, are, as it were, always interlocked. For that reason some of the manifestations and properties of the super-ego can be more easily detected in its behaviour in the cultural community than in the separate individual."\(^{15}\)

Freud's concept of the cultural super-ego is also based on his belief that civilization enjoys an internal erotic compulsion which causes human beings to unite in a closely knit group. The path of development of the individual starts within the family and is completed in parallel and in relation to the development of the social group. The reciprocal relationship between the cultural and the mental mechanism through the formation of the cultural super-ego and its implication for such a relationship between the productions of the two mechanisms will be our second premise for our analogy between the topographies of mental and architectural production.

The question of the preservation of mental life surfaces, particularly in relation to the cultural super-ego. Are the experiences of the egos

\(^{15}\). S. Freud, Civilization and its Discontents, p.88-89
of one generation preserved and passed on to the egos of the next one? Freud claims that there is no direct inheritance in the ego, but the operation of heredity works as follows:

"The experiences of the ego seem at first to be lost for inheritance; but, when they have been repeated often enough and with sufficient strength in many individuals in successive generations, they transform themselves, so to say, into experiences of the id, the impressions of which are preserved by heredity. Thus in the id which is capable of being inherited, are harbored residues of the existences of countless egos; and when the ego forms its super-ego out of the id, it may perhaps only be reviving shapes of former egos and be bringing them to ressurection."

We notice that the function of repetition of mental experiences within the social practice results in their storage in the id, the unconscious part of our mental field, out of which they can be recalled through the formation of the super-ego. As we have already seen, the practice of recollection is being facilitated through the repetition of word presentations, the mnemonic residues associated to the original experiences. The collective nature of the process described once more justifies Freud's analogy between the development of the individual and cultural life. The id containing the experiences of many egos is a concept relative to the Jungian collective unconscious (a deeper stratum of the unconscious than the personal unconscious and the material from which our consciousness emerges).

16. S. Freud, The Ego and the Id. p.28
We have drawn an outline of the components of the mental mechanism that account for the preservation and the repetition of material from mental production, and we became aware of a working relationship between the mental and the cultural mechanisms. We will attempt in the next chapter to look at the practice of preservation and repetition within the mechanism of the architectural production.
The function of typology in architectural production

The question of architectural production inevitably raises the question of the nature of the architectural work itself. Rafael Moneo, in his article "On Typology" ascribes the condition of uniqueness to the architectural work, as in other forms of art, resulting in the state of singularity. On the other hand, he claims, the primary architectural artifact was a functional response to certain needs, as were other kinds of craftsmanship. By virtue of the constant occurrence of those needs, the objects created were meant to be repeatable.

"From this point of view a work of architecture, a construction of a house -like a boat, a cup or a helmet- can be defined through formal features, which express problems occurring from production to use, and which permit its reproduction. In these terms it can be said that the essence of the architectural object lies in its repeatability."17

The repeatability of an object accounts for its abundance, and its subsequent characterization as a type. Thus the concept of type is introduced. Language has provided specific words to describe elements of the same type, implicitly acknowledging the concept of type. The etymology of the word typology includes the element of repeatability in the origin of the Greek word "typos" , meaning impression or the repetitive production of the same image. Later the word typography was formed from the same root. Eventually, as language is called to describe elements of a typology more precisely,

17. Moneo, On Typology p.23
new subgroups of elements are named. Finally, the name of one specific building is used. Thus, Moneo claims:
"...the idea of type, which ostensibly rules out individuality, in the end has to return to its origin in the single work."\[18\]
It would be a mistake at this point to diagnose a duality in the nature of the architectural work, seeing it as both a single entity particular to specific circumstances and as a part of a whole group of similar objects, all having at some time responded to the same set of requirements. We should rather notice a certain cycle of events during which the architectural work starts as a singular object and then forms a group of a certain type after having been repeated enough times in enough generations. The process of repetition results in the instatement of the work within a more abstract category of typological classification. The final identification of the work, however, only after it has become part of a typological group, occurs when it achieves the precise characteristics of a singular entity. In that sense, typology is not merely viewed as a device of classification but as a productive mechanism. Against the criticism of typology as a frozen mechanism that denies change and emphasizes an almost automatic repetition, Moneo points out that the very idea of type, as he proposes it, implies the idea of change, or of transformation. His argument is that the factor of time inherent in the function of repetition accounts for change and transition, and that the interactions between elements of a certain typological series constitute a precise formal structure within which change occurs. The

\[18\] Moneo, p.23
repetition of type facilitates its adaptation to whatever needs and circumstances are present at a given time:
"The type can thus be thought of as the frame within which change operates, a necessary term to the continuing dialectic required by history."19

There is an inherent contrast in the process described by Moneo. It addresses the contradiction between the abstract and almost elusive idea of type as an underlying formal structure and the exact specificity of the architectural work as a single entity. The model put forth here is one of production and evolution, where the notion of type plays an operative role in the mediation between both conditions. The task at hand is the transformation of one state - or elements thereof - into the other, going from a very general and theoretical state to that of particularity and singularity. The question of the dynamics between those two states, a general one that has already been in existence in the past and a specific one that is about to be identified will be a main concern of our study. We may compare this condition to an analogous one in mental life, which, according to Freud, is responsible for the loss of man's original unity with the universe: the ego' experience in its capacity as an independent individual organism comes into conflict with its experience "as a member of a series of generations."20 It is useful to how our analogy functions within the actual practice of the contradiction.

The idea of the repetition in time of architectural elements so that

19. Moneo, p.27
20. S. Freud, A General Introduction to Psychoanalysis, p. 359
they are eventually sublimated into a more general and inclusive category which offers the potential for their recollection, realization and use, draws a parallel with the Freudian concept of the repetition of the experiences of the ego, their installation within the id and their eventual resurrection through the super-ego. The analogy can be based upon the formation of an inventory of architectural types and of mental experiences, respectively, securing their preservation and inheritance. The operational framework in the first case is the field of our architectural experiences, and in the second case the topography of the id. Although no direct, or even partial overlap of the two fields can be attempted as part of our investigation, we will attempt to examine if any of the conditions present in one are also present in the other.
Freud's compulsion to repeat

Freud first noticed the practice of the compulsion to repeat during psychoanalytic treatment sessions where certain transference phenomena occurred. His patients would resist the memory of traumatic events or conflicts, but they would re-enact them in relation to the psychoanalyst. The tranference was from the function of memory to the function of repetition, resulting in a compulsion to repeat as a way of remembering. Those phenomena, and the very revealing side effects they brought to light prompted Freud to include tranference, repetition, memory, recollection and "working through" as an integral stage of the therapeutic psychoanalytic process. Those observations and their practical use were published for the first time by Freud in 1914, in his paper "Remembering, Repeating and Working Through."

"The relation between the compulsion to repeat and the transference and resistance is naturally what will interest us most of all. We will perceive that the tranference is itself only a bit of repetition, and that the repetition is the tranference of the forgotten past not only to the physician, but also to all the other aspects of the current situation. We must prepare to find, therefore, that the patient abandons himself to the compulsion to repeat, which is now replacing the impulse to remember, not only in his relation with the analyst, but also in all other matters occupying and interesting him at the
Freud used the transference of memory to unconscious repetition as a therapeutic device because he realized that it was an unconscious device on the patient's part of coming to terms with his own past, to reconcile with repressed memories and traumatic experiences. The psychoanalyst, in dealing with the repressed material brings about the change of the conscious attitude of the patient towards the repressed material and tries to keep the transference neurosis within the narrowest limits.

We have already witnessed the role of repetition within a healthy mental state, where the experiences of the ego are installed in and inherited through the id. The word presentations, or mnemonic residues trigger the mechanism for recollection. In the neurotic condition of the repetition compulsion the focus is shifted to the unconscious repetition within the id, excluding the possibility for conscious memory. Recollection can only be activated through the external intervention of the analyst.

The operation of conscious and unconscious repetition in the context of architectural practice has been elaborated on by Christopher Alexander. In his doctoral dissertation "Notes on the synthesis of form", he distinguishes between the unconscious and the self-conscious form-making process:

21. S. Freud, Remembering and Working Through. p.370
"I shall call a culture unselfconscious if its form-making is learned informally, through imitation and correction. And I shall call a culture selfconscous if its form-making is taught academically, according to explicit rules."²²

For the first process he draws his examples from primitive indigenous African cultures which have a framework for repetition of the same housing type, rigid enough to provide stability and reproduction, but also subtly flexible in order to assimilate changes with time and condition. Therefore, Alexander argues, the unselfconscious process has a structure that makes it homeostatic, resulting in the consistent production of well-fitting forms, even in the face of change.

In direct contrast to the unselfconscious process, the selfconscious process, which came about with the invention of a teachable discipline called "architecture," adulterated the nature of the unselfconscious process by depending mostly on the inventiveness of one person and reduced its chances of success. Alexander stresses the importance of the unconscious factor in the process. It only breaks down when an outside violation occurs, which has to be dealt with in a new and conscious manner, such as the introduction of an element totally foreign to the existing framework of typological repetition and adjustment.

We can describe the topography of Alexander's production theory by using Mannheim's model of "progressive thought" and "conservative

²². C. Alexander, Notes on the Synthesis of Form, p.36
thought:
"For progressive thought every single thing receives its significance only from some other thing that is ahead of it or above it, from a utopia of the future or from a norm that exists above being. Conservative thought, on the other hand, deduced the significance of the particular from something that stands behind it, from the past or from that which already exists at least in embryonic form."^{23} The objective of progressive thought is the severing of the relationships of the existing order in order to restructure them at a different level. The objective of conservative thought is the reinstatement of the former condition. In this light, Alexander's unselfconscious production model is seen as a conservative process based on the preservation of an existing typological series, whereas his selfconscious process is based on the attempt to discontinue the current typological practice and introduce a new one.

The issue of conservative and progressive processes in Freudian theory is also related to the repetition practice; in fact Freud is led to it through further investigation of the compulsion to repeat. Freud noticed the repetition of activities which lead only to unpleasure, under the pressure of a compulsion, forcing him to admit that there exists in the mind a compulsion to repeat which overrides the pleasure principle. He also diagnosed an instinctual character to that practice and related the predicate of being instinctual to the repetition compulsion:

"It seems, then, that an instinct is an urge inherent in organic life to

^{23} K. Mannheim, Das Konservative Denken, p.53
restore an earlier state of things which the living entity has been obliged to abandon under the pressure of external disturbing forces."^{24}

The next step in his enquiry^{25} results in the distinction between the conservative, self-preservation 'ego-instincts' which exercise pressure towards death and therefore correspond to the compulsion to repeat, and the sexual instincts which aim at the preservation of life through the creation of new life. This distinction is later found to be inadequate since he discovers the ego-instincts to have a libidinal content, and the sexual instincts to be operating in the ego as well as in the id. A new distinction is made between the progressive life instincts and the conservative death instincts. The discovery of masochism operating within the progressive life instincts lead Freud to the hypothesis that all instincts are of a libidinal nature and that their origin can be traced to "a need to restore an earlier state of things."^{26}

We have noticed so far a certain correspondence in the operative components of mental and architectural production. Those components are the framework of repetition and the progressive and conservative processes that are related to it. Should we assume a connection

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24. S. Freud, Beyond the Pleasure Principle, p.29
25. Freud's investigation of the instincts inspired some of the most confused writing in psychoanalysis, and although many efforts have been made to interpret his ideas on the subject, no compromise has been reached.
26. ibid, p.51
between those processes in architecture and in mental life, based on the operation of the cultural super-ego and on the social origins of instinctual repressions, could we assign an instinctual nature to the conservative and progressive processes in architecture? Would we then be justified in assigning to them a regressive nature as well, based on Freud's retrogressive view of the instincts?

We will next attempt to trace those forces in the theory and practice of Enlightenment Architecture, a period which exhibits the symptoms of a rupture in its current typological practice, as well as the reinstatement of older architectural forms.
G. B. Piranesi, Campo Marzio dell'antica Roma, 1761 - 1762, Perspective view of the area of Hadrian's tomb and the Bustum Hadriani.
G. B. Piranesi, Campo Marzio dell'antica Roma, 1761 - 1762, The Via Flaminia
G. B. Piranesi, Campo Marzio dell'antica Roma, 1761 - 1762, Detail
G. B. Piranesi, The Carceri
The architecture of the Enlightenment
and the crisis of the Baroque Order.

The architecture of the Enlightenment (towards the latter half of the eighteenth century in Europe) shows the symptoms of a period of crisis. The crisis affected the Baroque Order which was the main architectural practice in Western Europe (Italy, France and England.) through the reintroduction and reevaluation of classicism. The Baroque principle of perfection, achieved through an organic geometrical equilibrium, was challenged by an order of independence of individual parts. Wittkower points out that according to Alberti's mathematical definition, based on Vitrivius, beauty in the Baroque age consisted of the rational and proportional integration of the parts of the building, in such a way that every part has its absolute fixed size, and nothing could be added or taken away without destroying the harmony of the whole. Palladio, in his first book also agreed that "Beauty will result from the beautiful form and from the correspondence of the whole to the parts, of the parts among themselves, and of these again to the whole; so that the structures may appear a complete body, wherein each member agrees with the other and all members are necessary for the accomplishment of the building."

The harmonic perfection of the geometrical scheme gained direct access to the religious and metaphysical order by representing an absolute value, independent of subjective and transitory perceptions. In that way, it represented an universally valid harmony that found its
physical counterpart in the organic harmony of the proportions of the human body, establishing in Wittkower's words, a sympathy between the microcosm of man and the macrocosm of God. The subjective and transitory perceptions gained in importance when the rigorous mathematical reasoning of Enlightenment philosophy offered the means for establishing truth, independent of God's revelation. After the mathematical demonstrations of Descartes, Spinoza and Leibniz, as well as Newton's revolutionary explanation of the material universe, scientific rationalism and empiricism established itself as the alternative to religious and teleological truth. Locke applied Newton's empiricism to the principles of human knowledge and asserted that all knowledge is based on experience. Permeated by the spirit of Locke and Newton, the eighteenth century felt itself solidly based on a scientific method which, while empirical and therefore solid, could be counted upon to discover the laws of an orderly universe. This method was applied everywhere: government, education, morals and of course, religion. Immanuel Kant, answering the question "what is enlightenment," stresses the independence of the human mind:

"Enlightenment is man's exodus from his self incurred tutelage. Tutelage is the inability to use one's understanding without the guidance of another person. This tutelage is self-incurred if its cause lies not in any weakness of the understanding, but in indecision and lack of courage to use the mind without the guidance of another. 'Dare to know' (sapere aude)! Have the courage to use your own understanding; this is the motto of the Enlightenment."
The concept of the absolute supremacy of the Divine Authority was thus challenged by what Alfred Whitehead called "an age of reason based on faith" - (faith in reason and natural order, not religious faith.)

The end of the subordination of the natural to the divine law signaled the breakdown of the Baroque concept of unity not only in the parts of the building but in the idea of the Gesamtkunstwerk as well. The newly found independence of formal elements granted them a certain autonomy which partially isolated architectural practice from its cooperation with all the arts.

None has provided a better image of the crisis of the organic Baroque form than Piranesi in his editions of Campo Marzio and Carceri. We have already seen how the decomposition of the Baroque order had been alluded to in the Campo Marzio plates through the disarticulated references to classical geometrism. Piranesi recalls the classical forms but does not use the classical order in recomposing them. Their principles of organization, or, rather, the absence thereof exclude the possibility of any organic unity in the composition, in what Tafuri has called "the sadistic destruction of the organicity of space."28 This is a direct challenge to the Baroque principle of unity and harmony. The antihistorical use of form, coupled with the breakdown of its spatial organization, has the effect of disengaging it from any former system of values and meanings. Form now achieves an autonomy not only in its severing itself from the ranks of an older order, but also from its

27. Kant Werke, vol.IV, p.169
own meaning. There is a simultaneous loss of both internal and external references leading to the 'silence of form.' Tafuri claims:

"Piranesi's intent in the Campo Marzio is to draw attention to the birth -necessary and terrifying- of an architecture bereft of the signified, split off from any symbolic system, from any value other than architecture itself."29

The destruction of Baroque principles continues in the Carceri plates. Here we have the challenge of the principle of centrality, the reflection of the position of divine law in the religious scheme. The drawings of the prisons consist of the superimpositions of multiple spatial layers, according to no clear laws of perspective. Elements in the background -or what appears to be the background- are treated as if they belonged to the foreground, making our efforts for orientation futile. The general effect is what May Sekler has referred to as a constant disintegration of the coherence of structure. Tafuri sees it as a systematic criticism of the concept of space. The absence of a structural or even spatial center lends the different components of the Carceri a disorderly sense of independence, a concept opposite to Baroque centrality. Piranesi uses his images as sharp critical tools, aimed not only at the current architectural practice, but also at its political and theological connotations. The direct correspondence of microcosm and macrocosm, or of base and superstructure, through the channel of universal theocracy allows critical access to intermediate

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29. M. Tafuri, The Sphere and the Labyrinth, p.40
convictions such as the power of the State or of the Church.

The loss of meaning and the loss of the organicity of form exhibited by Piranesi are indicative of a rupture in the architectural practice of the Baroque Age, brought about by the architecture of the Enlightenment and the evocation of classical forms. If we choose to proceed on the assumption that there was a collective cultural super-ego, in the Freudian sense, in operation at the time and that this super-ego was formed of the cultural and therefore architectural experiences of former generations which had been dormant as part of a cultural unconscious, can we then conceptualize the possibility of their reinstatement during a period of crisis as a result of external influences or mnemic residues? To what extent are we justified in assigning a condition of psychological disorder to a cultural generation undergoing a period of crisis? Freud has pondered on a different version of the question:

"If the development of civilization has such a far-reaching similarity to the development of the individual and if it employs the same methods, may we not be justified in reaching the diagnosis that, under the influence of cultural urges, some civilizations, or some epochs of civilization -possibly the whole mankind- have become 'neurotic'?"\(^{30}\)

Freud claims that his hypothesis cannot be discarded on the basis of absurdity or fruitlessness, but is aware of its analogical nature and cautious about displacing concepts from their originating sphere. In the end, he expresses optimism about the credibility of a pathology of

\(^{30}\) S. Freud, Civilization and its Discontents, p.91
cultural communities. While the scientific and operative (therapeutic)
value of the projection of psychotherapy on cultural life remains in
the realm of speculation, its validity as grounds for the analogy
between individual and social practices is installed. This is our
premise for the analogy between the Freudian operation of mental
life reurrection through the super-ego and the return to classical
forms in the architecture of the Enlightenment. As in the critical
condition of the compulsion to repeat, a change is brought about in the
conscious attitude towards the repressed material, at its
reinstatement in the ego. Classical forms were now looked at under a
new perspective, reexamined and made to address new sets of
conditions. The repetition of the same forms did not imply sameness
(to the antique ones), not only because the manner and the conditions
under which they were used were different, but also because of the
bearing influence of the experiences of more recent history. Charles
Darwin, 31 in his treatise "The Origin of Species," addresses the
theme of the reappereance of a species:
"We can clearly understand why a species when once lost should never
reappear, even if the very same conditions of life, organic and
inorganic, should recur. For though the offspring of one species might
be adapted (and no doubt this has occured in innumerable instances) to
fill the exact place of another species in the economy of nature, and
thus supplant it; yet the two forms -the old and the new- would not

31. There is a certain similarity between the work of freud and Darwin, certainly in
their scientific and deductive methodology. Freud dealt with the preservation in the
sphere of the mind and Darwin dealt with the preservation in the natural world. Freud
himself has compared himself to Darwin.
be identically the same; for both would almost certainly inherit different characteristics from their distinct progenitors."32

Darwin stresses the importance of the connection to the past in the life of species. In the sphere of Enlightenment architecture it would be helpful to distinguish the attitudes that were established towards the use of the classical forms. One attitude is represented in the writings of Abbe Marc-Antoine Laugier who propagated the by now famous primitive hut theory in the middle of the eighteenth century. The primitive hut provided the origin of buildings consisting of only the bare essentials as they are found in nature. Anything else, such as decoration, would be superfluous. Laugier lent the new authority of the Enlightenment doctrine of physical law to the naturalness of his hut and supplied a formal justification for physiocratic ideology. Laugier's position was neo-platonic in the sense of legitimizing his ideal functionalism by appealing to the archetypal building as an absolute value which he anchored in the authority of nature. In another sense, Laugier's proposal for a park design evokes images from the Campo Marzio and the Carceri:
"There must be squares, crossroads and streets. There must be regularity and fantasy, relationships and oppositions, and casual, unexpected elements that vary the scene; great order in the details, confusion, uproar, and tumult in the whole."33

The difference between Laugier's proposal and the Piranesian arrangement is that in the first case there is an underlying external

33. M.A Laugier, Observations sur l'Architecture, pp.312-13
reference to nature and an absolute system of values, whereas in the second case we have the negation of both of the above as part of the internal formal references. The second part of Whitehead's equation "Reason based on Faith" is heavily emphasized in Laugier's convictions.

In direct opposition to Laugier's absolutism stands the second attitude towards classical form in the theoretical work of Claude Perrault, an anatomist in the Academy of Sciences in Paris, during the later half of the seventeenth century. Perrault supported classicism but defied the Renaissance concept of a priori beauty generated by a set of musical ratios which represent universal harmony. He claimed that aesthetic proportions are perceived as beautiful simply as a matter of habit and that they are subject to the variations of our taste. The only form of beauty to which Perrault grants autonomous status is his concept of "positive beauty" which concerns the natural laws of building technology, symmetry and workmanship. Perrault, along with his contemporary Blondel, saw architecture as construction and not as ornament (a Baroque practice.) Along with his concept of "positive beauty" Perrault used his more radical concept of "arbitrary beauty" based on either the authority of social institutions or on customs, to be agreed upon by the majority: "...things please according to their conformity to the ideas which each individual has of their perfection, ...one needs rules which form and rectify this idea, and it is certain that these rules are so necessary to all things." Georges Teyssot sees an essentially social justification of taste in Perrault's claim and Stanford Anderson credits him with
having introduced the conventionalism of classicism. In showing a disregard for the sacredness of history, Perrault freed the classical order from the authority of absolute rules and subjected it to the relativity of conventional rules. Perrault's philosophical kinship can be found in David Hume's aesthetic relativity. Hume's relativism is based on his theory of human understanding whereby human perceptions resolve themselves into internal ideas and external perceptions and "our impressions are the causes of our ideas, not our ideas of our impressions."\textsuperscript{34} Beauty, therefore is relative and "every mind perceives a different beauty."\textsuperscript{35}

Although Perrault's relativism and Laugier's idealism are drastically different in approach and attitude, they represent the two different ways during the Enlightenment of addressing the same event: the use of classicism. If we conceive of the two attitudes as cultural forces or urges, both striving towards the same goal, the formulation of architectural ideology and consequently, architectural production, we may be at liberty, following Mannheim's model, to assign a conservative character to the idealist force and a progressive character to the relativist force without attaching a value judgement to either one. Or else, in furthering the Freudian analogy of communal pathology, we may distinguish the presence of what would be analogous to the conservative and repetitive Death instincts in one case and the presence of what would be analogous to the progressive

\textsuperscript{34}. D. Hume, A Treatise of Human Nature, Of the origin of our Ideas.
\textsuperscript{35}. D. Hume, Of the Standard of Taste.
and life-prolonging Life instincts in the other case. We attempt this on the premise of the observation that the idealist attitude operates on ultimately appealing to a preconstituted authority and, by virtue of granting it an ideal status, strives to identify with it, at least metamorphically. The relativist attitude, on the other hand, operates on the negation of such an authority and on the interaction of forces promoting change and modification. In other words, one attitude wishes to restitute a precedent state and the other anticipates a descendant state.
Enlightenment architecture not only witnessed the revival of classical form but also of the classical notion of type, which led to the formulation of typological theories informing the architectural production of the time. The first comprehensive theory of type was proposed by Quatremere de Quincy during the end of the eighteenth century. He was the main exponent of a neo-platonic theory of type which he introduced to the neoclassical tradition of his time. This places him in direct relation to Laugier's primitive hut as the origins of type, associated with a universal physiocratic law according to which the world could be ordered.

Operating on the premise that "everything must have an antecedent," Quatremere de Quincy assigned the value of the 'elementary principle' to type and described it as the 'origin' and 'primitive cause.' This idea of type was a metaphorical one, meant to inspire an ideal condition in architectural artifacts. He acknowledged the inherent contradiction between the abstract, in a sense metaphysical, idea of type and the particularity of the state of the object, but chose to keep the distinction clear by keeping the two separate. Instead, he introduced the idea of the model as an instrumental device in the production of architecture, which was assigned the role of infusing the abstract idea of type into the nature of the architectural work:
"The model, as understood in the practical execution of the art, is an object that should be repeated as it is; the type, on the contrary, is an object after which each artist can conceive works of art that may have no resemblance. All is precise and given in the model; all is more or less vague in the type."36

The model (described as the more material idea of the more positive model) is here put forth as the intermediate stage in the process of production, between the type (described as the imaginative model) and the single work. Quatremere de Quincy realized the inadequacy of the theory of type to act in an instrumental way, particularly since he had made a point of placing it in an abstract realm, and therefore separated it from the real object. The model itself was meant to be repeated quite literally, and certainly should not be confused in its capacity for repetition with type. The relationship between type and model is further clarified:

"It (type) is also used synonymously with 'model,' although there is between the two a difference that is easy enough to understand. The word type presents less the image of a thing to copy or imitate completely than the idea of an element which ought itself to serve as a rule for the model."37

Type is presented as a source for the model. The latter is materialized as a result of following, or reacting to the rules that the former offers. Since the notion of type itself is vague enough, the rules that it offers are, as Quatremere de Quincy seems to suggest,

36. Quatremere de Quincy, Type, Oppositions 8, p.148
37. ibid.
open to interpretation which results in many different outcomes.

The typological model put forth here is both theoretical and productive. Type is placed in an absolute position outside the field of production. It does, however, offer the general rules, according to which the model is constructed, based on the repetitive use of previous models. Type lends its ideal authority which is passed on to the model during the process of interpreting the rules that it presents. The entire process can be roughly abstracted as a two step operation; the first step being the distillation of the model from type in a more or less self-conscious process, and the second step concerning the appropriate usage of the model and its subjection to rationalization.

A very different typological theory was put forth by J.N.L. Durand (student of Boulee), and was published during the first years of the nineteenth century, shortly after Quatremere de Quincy's theory, while he was teaching at the newly established Ecole Polytechnique. Having to teach the skills of architecture to engineering students in a period of two years, Durand developed a highly systematic theory of typology and introduced it to the design practice. Partly because of the explicit need for the connection between theory and practice, and partly because of his functionalist and structuralist aesthetic, Durand put forth a position that was more solidly grounded in reality, in his attempt to confirm the operative means of architecture. To that end, he established a vocabulary of architectural types, derived from
already existing classical forms, but divided in basic irreducible elements according to the universal laws of Euclidean geometry. Those elementary types were used as the components in the geometric composition of new types. Antonio Hernandez suggests that the reason Durand chose classical forms for his typological vocabularies was not his affinity for them—he had already expressed a strong dislike for their structural and ornamental articulation,—but the fact that they were conventionally established through time, and therefore practical and convenient in their application. The reduction of the classical forms to what Durand called their 'constitution', and their classification under typological categories seems to suggest an empirical scientific approach, geared towards a linear evolutionary development of formal species in a Darwinian sense. This leads Anthony Vidler, apart from diagnosing a methodological association with Darwin, to point out the introduction of the concept of historicity in the manipulation of pre-existing forms, and the connection with history in their projection into the future. The historical connection here, however, occurs at a very different level than in Quatremere's case. It is a connection based on the principle of "convenience" and "economy" as opposed to the principle of the pre-existing ideal type. The classical forms are being restructured not only in order to meet a new set of criteria and conditions, but even, as Werner Oechslin suggests, to account for more demanding conditions and premises. In that way, type severed its ties with the abstract, neo-platonically induced idea of the archetype, and thus liberated itself from its bonds to the classical order. The classical forms were
divorced from their original context, and were re-examined in their potential as instruments of conventional application, reciprocally determined by current socio-economic demands. Seen in that light, Durand's typological model was not a result of linear evolution, as in Vidler's description, but one of almost arbitrary extraction from history, addressing the need for future forms rather than the accommodation of past inheritance. Whether Durand's use of classicism contained an inherent, deliberate criticism of the classical order, as in Piranesi's Campo Marzio, is questionable. Moreover, did Durand implicitly allude to the possibility of a conventional use of form during the classical times, as opposed to a generally perceived ideal use (with the ulterior motive of legitimizing his own work), much as Piranesi's allegations in his dedication for the Campo Marzio that the ancients broke the rules in architecture as often as the moderns? Given the functional requirements in Durand's work and his denunciation of many classical features, we may only speculate. Both can be credited, however, with challenging the absolute rules of the classical order; Piranesi in his deliberate exhibit of its disintegration, and Durand in his system for its functional re-adaptation. Piranesi never quite proposed a new order to replace the classical one, whereas Durand's opposition is mainly materialized through his own theory of formal production.

We can clearly notice the kinship between Perrault's idea of "arbitrary beauty" and Durand's functionalism. Perrault's idea of "arbitrary beauty," based on the authority of customs, or social institutions, to be commonly agreed upon by the majority of the
participants can be viewed as the ideological predecessor of Durand's conventional use of classical form for the purpose of convenience and economy, based on the authority of geometrical rules. A difference between the two is that one resorts to the authority of socially determined experience, and the other to the authority of geometry, both, however in order to accommodate a set of social requirements.

Despite their differences, there seems to be a common trend among the attitudes of Perrault, Durand, and to some extent Piranesi, concerning the use of classical form. Their positions reflect an urge towards the creation of a new formal state, recomposed of older elements, but constituting and responding to new conditions. As a result, a rupture occurs with the guidelines of the former system, from which those elements were extracted. In opposition stand the theories of Laugier and Quatremere de Quincy which are directed towards the metaphorical, and occasionally literal approximation of a pre-existing ideal condition, and which derive their productive guidelines directly from that ideal condition. According to this we can assign the progressive role of proceeding to a descendant state in the first case, and the conservative role of following a precedent state in the second case. This leads us to our original analogy of Freudian instinctual forces, the progressive Life instincts striving for the prolongation of life and the creation of new life versus the conservative and repetitive Death instincts striving for the repetition of a former state, the innanimate one. While no tautological scheme between the conflicts of Enlightenment formal attitudes and the
dynamics of cultural extensions of the Freudian instinctual forces is attempted, we can see that if the operation of the latter is accepted, they would enter a causal relationship with the former. We may gain more insight in this relationship by further investigating the contrasting attitudes during the Enlightenment.
The problem of proportions in Enlightenment architecture

The problem of proportions in Enlightenment architecture is representative of the break with the Baroque and Renaissance tradition. According to Wittkower, the integration of each part of the building into one and the same system of mathematical ratios was the basic axiom of Renaissance architects. Those ratios were related to the proportions of the human body, and since man is the image of God, the proportions in architecture had to "embrace and express the cosmic order." The laws of the cosmic order and the mathematical ratios through which they were expressed were believed to be connected to musical ratios, so that musical harmony was the audible proof of visual harmony.

The connection of music to architecture, again according to Wittkower, was to be traced to the Greek concept of music as a mathematical art, against which architecture was only considered a manual craft. By linking architecture to the Greek system of mathematical and musical ratios -and by extension to their divine source- Renaissance architects elevated the status of architecture to that of a liberal art. Pythagoras had measured musical consonances in space and had discovered that they were determined by small whole numbers, in which the fabric of the soul and the world were perfected. Ratios of small whole numbers 1 : 2 : 3 : 4 : ... and their combinations

38. R. Wittkower, Architectural Principles in the Age of Humanism, p.101
accounted for the Rainessance system of 'polyphony of proportions.' Lomazzo, in his "Trattato dell'arte della pittura (1584) declared that masters like Leonardo, Michelangelo and Gaudenzio Ferrari "have come to the knowledge of harmonic proportion by way of music; the human body itself is built according to musical harmonies. This microcosm created by the Lord in his own image contains all numbers, measures, weights, motions and elements."\(^{39}\)

Claude Perrault, in his study 'Ordonnance des cinq especes de colonnes,' was one of the first architects to defy the principle of musical and visual harmony. Both his concepts of 'positive beauty' and 'arbitrary beauty' argued for the relativity of our aesthetic judgement, and were contrary to the status of universal truth that beauty was enjoying. He also, " ...quite logically, maintains that musical consonances cannot be translated into visual proportions."\(^{40}\) Guarini and Milizia in Italy, subordinated the laws of proportions to the laws of perspective, suggesting that the individual viewer is responsible for his own aesthetic judgement. The philosophical trends which supported those positions, as in the ideas of Locke, Hume and Burke among others, were also convinced of the relativity of the concept of beauty. According to Kaufman, the baroque patterns of concatenation, integration and gradiation were replaced by what he terms the "revolutionary patterns" of repetition, antithesis and multiple response. The basic principle ruling composition now was the concept of individualism and independence.

\(^{39}\) ibid. p.119
\(^{40}\) ibid. p.151
The work of Etienne-Louis Boulleé is a radical manifestation of the
disruption of the Baroque proportional system by Enlightenment
architecture. Boulleé, a student of Blondel, after a certain point of
his career expressed his architectural ideas through the medium of
drawing. We will look at one of his drawings, the interior perspective
of his project for a Museum.

Boulleé's drawing of the Museum does not offer itself to immediate
comprehension and engages us in a series of layers of visual
discoveries. In our first contact with the drawing, because of our
inability to cognitively manipulate the complexity of visual
information in a short time, we assume, since the architectural
elements employed here are familiar to us, that their scale and their
relationship to each other are the ones we would associate with them
based on experience. We assume, therefore, that the sizes of the
columns, the blocks of steps and other elements are of conventional
proportions. Compared to the figures ascending the steps, however,
we realize that those elements are of rather enormous proportion. The
illusion is not caused by a distortion of scale, but by a change of scale
consistent throughout the drawing, and establishing a new frame of
reference. As we have seen, the classic sense of scale and proportion
in architecture, as well as in music and the arts followed a pattern of
small numbers, such as $1 : 2 : 3 : 4 : \ldots$ As Adolf Max Vogt points out,
Boulleé here advocates a ratio approaching $1 : \infty$. 
Similarly, we are first led to the illusion that the interior vault is the sky, and later, that the larger dome beyond the vault is the sky. This creates the impression of the limitlessness of space, an opening toward the infinite - reasserting the new scale, and the elusiveness of a sense of centrality; all of which we have seen to be themes in Piranesi's Carceri. The manipulation of those architectural elements is achieved through the distribution of masses, their disposing so that their contrasting forms produce illumination effects, the colossal dimensions and the emphasis on the character of the building. The preoccupation with geometrically quintessential architectural forms, which by virtue of their purity assume an elevation of the human mind, may have been urged by the nature of the project, a monument to the universality of the human mind.

We are subjected throughout the drawing to a series of successive subversions and negations of our conventional beliefs of architectural space and form. Those subversions are not intended for their own sake, but they are a series of reinterpretations and rearrangements of those elements, bearing an internal consistency. They establish a new, independent order of architectural experience which operates within its own frame of reference. It is the new architectural experience that Boullee wishes to communicate, through the medium of drawing, and to oppose it to the experience of Rococo, French late Baroque. The project has the liberty of going to any length in order to establish its opposition, since it never leaves the state of a drawing: its field of conception and field of operation are tautological.
Utopia and Phantasy

The extent to which Boullee carries the alteration of architectural norms, and the 'unreal' or 'irrational' nature of his propositions have often led to the classification of his work as 'utopia.' In that respect, he stands in the company of Piranesi, whose inventions are also credited with a utopian character. They both also introduced imagination (phantasy) as an autonomous force, for the purpose of delineating utopia. We will use the term 'utopia' as the formal vision of a metahistorical state which exists only in the future.

Piranesi and Boullee both exhibited the dissolution of the prevailing rational system, by either exposing it in a decomposed state of linguistic disorder, or by restructuring it in an unreal, and, seemingly, irrational new order. The use of classical, and therefore rational elements in the construction of 'irrationality,' or else phantasy, accounts for a contrast, not only between the means and the end, but also between form and content. The two contrasting states, the rational and the 'irrational,' the real and the 'unreal,' or the positive and the 'negative' may then start to function in completion of each other, as the poles of the same reality, and in doing so, to reveal the territory in between. This condition leads Tafuri to define the contradiction as the propelling fact of development, as a result of a dialectic founded on the negative. The negative functions as the
"release valve of an unlimited potential for development."\textsuperscript{41} In placing itself before the system and assuming the role of actuality, it defines the premises for action in a new and wider field of reality. Tafuri draws his examples from the avant-garde artistic movements, such as Dadaism and Futurism, which he credits with the courage of exploding the contradiction of their opposition to the system. Seen in this light, the role of negation in utopian architecture of the Enlightenment becomes the role of anticipation, and the metahistorical dimension of utopia is rendered historical. Tafuri accepts as the new role of Enlightenment architecture the formulation of hypotheses, and not the volunteering of solutions.

The function of phantasy in utopian architecture as an instrument of operative ideological criticism and development posed the need for an architectural linguistic system. This system, when exerted as criticism on architectural language itself, as in Piranesi's Campo Marzio assault on classical language, assumes the character of metalanguage. Georges Teyssot sees the linguistic system as a means to communicate information. And since information is language, the power of phantasy and invention is directly relevant to the power of language. Boullee's language of the infinite proportions can be seen as a violent morphological attempt to dominate the previous system of classical ratios. Vogt has suggested that Boullees Metropole was the formal assertion of the concept of the immeasurability of the natural universe, a problem made apparent by the work of Descartes, Leibniz and Newton, and declared by Kant, in his early 'Kant-Laplace Theory.'

\textsuperscript{41} M. Tafuri, Architecture and Utopia, p.56
When the function of architecture as language was taken literally, and in order for it to achieve its maximum efficiency, the distance between the signifier and the signified was shortened or eliminated, which accounts for 'architecture parlante,' a language of signs. This practice is represented in the works of Ledoux, where the building's form is identified with the building's character, as, characteristically, in his prison for Aix, or the Surveyors' House ("a grandiose symbolization of nature made servicable to man.") Morphological invention in, Ledoux's case, cannot be seen as the restitution of the power of symbolism in architecture, after it had been negated by Piranesi, but, rather, as the vulgar assertion of the power of its own language. The two legs of the metaphor are identical.

42. E. Kaufmann, Architecture in the Age of Reason, p.165
The social function of phantasy

So far, we have seen phantasy being accounted for as a potential for development in its projection into reality, or as a means of linguistic domination. The extensive use of phantasy as a social function in the development of architecture by Enlightenment architects will prompt us to look at the social function of phantasy in the field of instinctual interactions of Freudian topography. Herbert Marcuse has offered us an excellent Freudian analysis of the role and the potential of phantasy in the field of social development in his book Eros and Civilization. We will attempt to draw a parallel between the role of phantasy (utopia) in the development of architecture and the development of civilization, through the proposition of Marcuse. This may offer a new perspective in our investigation of instinctual forces and the topography of architectural production.

Freud stresses the importance of memory as a mode of cognition of the experiences of past happiness, once related to the pleasure ego but now restrained by the reality principle. Marcuse sees the truth value of memory in its access to material which, although now repressed, had once been reality. Upon realization of the potential of memory as recognition, the repressed truth is liberated. The cognitive content of phantasy is the agent for the restoration of memory, and
thereby, truth. In that sense, says Marcuse, regression assumes a progressive function. The liberation of the past does not limit itself in its repetition in the present but it extends itself in its orientation on the future: "The recherche du temps perdu becomes the vehicle of future liberation." 43

Here we may expand on the connection between the development of the individual and the development of civilization, under instinctual influences. The repression of the sexual instincts of the all encompassing, primitive pleasure ego by the reality principle at the beginning of civilization signifies the social origins of the instinctual organization. The fact that the individual abandoned his pleasure ego upon entering the social structure, in order to conform to societal restrictions imposed by the reality principle (or its agents, the death instincts) informs us of the social nature of instinctual repression. Since productivity, as the progressive replacement of an uncontrolled natural environment by a controlled natural environment, was the social objective of the reality principle we can claim that instinctual organization created the civilized division of labour. Marcuse's reading of the Freudian scheme of repression results in his assertion of the historical fact that civilization has progressed as organized domination. He continues:

"Precisely because all civilization has been organized domination, the historical development assumes the dignity and the necessity of a universal biological development." 44

43. H. Marcuse, Eros and Civilization, p.19
44. H. Marcuse, p.34
His proposed biological constitution of the historical processes is based on Freud's very ambiguous and inadequate differentiation between the biological and the socio-historical vicissitudes of the instincts. While Marcuse's biological extrapolation is questionable on the basis of reverse determinism (if we accept that it is man's biological behaviour that is informed by social dynamics, in a Darwinian sense), we can still adhere to our hypothesis of the causal connection between cultural and personal (ontogenetic and phylogenetic) development through the work of the instincts.

Marcuse here calls for the "duplication" of the Freudian terms with ones corresponding to the socio-historical component, and introduces the terms:

a. "Surplus-repression: the restrictions necessitated by social domination." 45
b. "Performance principle: the prevailing historical form of the reality principle." 46

Phantasy is now seen as an autonomous and unadulterated mental process which has a truth value of its own, corresponding to the experience of the unrepressed and "subhistorical past." The "subhistorical" past contains the experiences of the pleasure ego, the "much more inclusive, all-embracing feeling which corresponded to a more intimate bond between the ego and the world about it." 47 This reality is the cognitive territory of phantasy and has been designated

45. ibid. p.35
46. ibid. p.35
47. S. Freud, Civilization and its Discontents, p.15
as utopia and discarded after the reorganization of the pleasure principle into the reality principle. According to this, we can modify our definition of utopia from the 'metahistorical state of the future' to a 'latent subhistorical state of reality capable of projecting itself into the future.' It is only when phantasy takes form, when it creates a universe of perception and comprehension by assuming a semblance to reality, says Marcuse, that it reveals the knowledge behind the illusion. This occurs in art. And since the content of the knowledge behind the illusion is the loss of freedom, continues Marcuse, the archetypal content of art has been the negation of unfreedom. In order for unfreedom to be negated, it has to be represented in art with the semblance of reality. Should we choose to embrace Marcuse's polemic, our next definition of utopia in art would read: 'the representation of unfreedom as the premise for future liberation.' In other words, the potential for phantasy's projection into the future is in liberation from cultural domination. The liberation becomes effective through the reinstatement of a very earlier state of freedom, that of the harmony between the individual and the whole, the particular and the universal. In that sense, repetition becomes recreation, following Nietzsche's doctrine of the eternal return in pursuit of joy. The total negation of unfreedom becomes the recreation of freedom, as the total negation of death is the recreation of life under the erotic agency of the life instincts.

Can we now attempt a reading of the work of Piranesi and Boullee through the lens of the function of phantasy in art (defamed as utopia)
of the Marcusian model? We would have to make two assumptions in order to reconcile the transference. First, that architecture functions under the same category of cultural utility as art, and second, that the work of those architects operates in the same field of expression as art. Indeed, as we have seen, most of their work was executed in the material of its conception: that of mere semblance of reality which is the territory of art. Boullee claims: 'I am a painter too' on the title page of his 'Essai', giving himself the licence to "paint cities which do not exist, to dream of architectures which are structurally or economically very improbable - always though, under the condition of the validity of the artistic expression."48 Boullee declared himself a painter, but only a painter of architectures, as opposed to landscapes or still lifes; a capacity which he very much shares with Piranesi and to some extent with Ledoux. Vogt has shown how Boullee's work, apart from its value as an architectural project, possesses an independent value as a painting.49 Next, Vogt asks why Boullee's subject matter had always been architecture, that is why he chose "built images" as opposed to "painted images." The logic behind the choice, he answers, is that the built image, by virtue of being a similar medium, is a much closer means of depicting the structure of the universe than the pictorial representation. The structure of the universe during Boullee's time stood as a compound of "architecture" and "machine," as represented in his project of a cenotaph for Newton. Newton held the knowledge of the explanation of the universe and the architect (Boullee) provided the formal manifestation of that

48. A.M. Vogt, Boullee's Newton Denkmal, p.367
49. ibid. Boullee's als Architekturmaler, p.368-372
knowledge. In that sense, concludes Vogt, the architect (painter of built forms) is closer to the universal truth than the representational painter.

In the light of Vogt’s thesis we can see art (in Boullee's work) making a claim not only about the actuality of the structure of the world (already a novel concept), but also about the world as a mechanism of creation. In other words, art shifting from the role of representation of the world to the role of its recreation. Which world is being recreated in Boullee's work and what is its relationship to the current world? The role of recreation in Boullee brings us back to the function of recreation, or repetition, in the Marcusian liberating agent of phantasy as the negation of unfreedom. As we have seen in Marcuse, unfreedom has to assume a semblance of reality in order to be negated. Boullee chooses to employ elements which represent repression in the name of the reality principle and social progress. The way in which he employes them however, does not correspond to the current reality but to the cognitive content of his phantasy (or utopia). Those elements are: classical forms, a formal proportional system, and such established institutions of social enactment as Operas, Museums, Libraries, Metropoles and Necropoles. A process of infraction and negation of the rules associated with those elements results in the creation of an alternate reality. The interdependent and unified arrangement of forms has been replaced by their independence and autonomy; the renaissance system of subdivision, connectedness and centrality has been replaced by the integration of large spaces
and the elusiveness of a centre, and, finally, the renaissance proportional system has been negated for the sake of the proportional system approaching infinity. The result of those interventions is a new architectural reality, and since Boullee's architectural intention was the representation of the universe (as in the Metropolis or in Newton's cenotaph), this reality is a new view of the universe. It confronts us with the universal vastness and immeasurability, particularly in reference to the specificity of the human figures which are always present in Boullee's drawings.

There are two sizes in Boullee's drawings: the human and the universal. By their direct juxtaposition and by the absence of any mediating agencies, man does not distance himself from the universe; on the contrary, he gains direct access to the universal realm and indeed becomes a part of it. We may therefore venture the proposition that this intimacy between man and the universe may be conceptually related to the Freudian claim in Civilization and its. Discontents of the "...all-embracing feeling which corresponded to a more intimate bond between the ego and the world about it," or else the "oneness with the universe," experienced by the pleasure ego before its subordination to the reality principle under the influence of the social instinctual repressions. In that sense, Boullee's universe represents the potential for liberation from the organized social domination. The social institutions of museums, libraries and others would seize to function as instruments of repressive organization of mental life and would instead become the vehicles for direct correspondence between the individual and the universal mind. Boullee uses the very
symbols for implementation of social repression and violates their relationships in order to retrieve them at a higher, liberated level; nonetheless at a level which has once existed. The symbols of unfreedom become the symbols of freedom. In the meanwhile, the act of recreation acquires a double meaning: on one hand the remaking of the world as an alternative to it, and on the other the facilitation of this act by means of the repetition of a precedent world. Those two processes, naturally, coalesce in the same result, as a mutual effort of "conservative thinking" and "progressive thinking."

Piranesi's similarity to Boullee in that respect is in his use of instruments of social repression as themes in his plates: State buildings, temples, mausolea, and, most obviously, prisons (Carceres). The relationships of the repressive order, as we have seen are being assaulted and broken up. All the sets of subsystems exist in a turbulent state of dissipation, which often results in a state of formal dissolution. Piranesi has only two directions to follow from here: either to retrieve the fragments of the existing order at a higher level, or to allow them to slide to a condition of chaos and permanent decay. Boullee opted for the former; Piranesi for the latter. There lies the major difference between the two. Boullee's forms acquire a new meaning, whereas Piranesi deliberately forces his own to a state of meaninglessness. The role of phantasy in Piranesi's projects is to expose the origins of social repression; a task which becomes clearer in his anxious undertakings of antique excavations and reconstructions with diachronic overlays of the Baroque order.
Metaphorically, the search continues in the subterranean world of the Carcere, the Vedute and the foundations of ancient Rome.

The theme of repression is most vividly expressed in the torture chambers of the Carceri. While the human figures in Boullee's drawings exist in a state of idealized being and participate in the building's lofty goals, the Piranesian figures venture a nightmarish expression of the tragedy of the human condition. They represent not only the anguish of the individual in his isolation, but also the terror of man's gradual transformation into an inhuman instrument of his own repression. Assuming that confinement in a prison implies insubordination to the social order, the Carceri theme is not the alienation from society; it is, rather, man's alienation from himself and from the world, caused by society. Man's responsibility and ongoing participation in forging his own unfreedom is made painfully clear.

Piranesi diagnoses the symptoms of a condition and attempts to expose its origins; Boullee constructs a solution. Although no direct association can be speculated, the concepts behind Boullee's and Piranesi's work can be viewed as complementary. Both endeavours are, of course, contemplative; their value as hypotheses, however lies in their opening of perspectives for freedom.
The political function of phantasy

The systematic infraction of rules directly associated with the tradition of architectural practice, but as we have seen, also reflecting the constitution of the social order lends a political capacity to the work of Piranesi and Boullee. Kaufmann has attempted to grant a new, autonomous status to Enlightenment architecture, in his book *Ledoux bis Le Corbusier*, by anchoring the aesthetics of the emerging new order in Kant's concept of 'the autonomy of the will as the supreme principle of ethics.' The declaration of architectural 'autonomy' allows Kaufmann to assert that 'autonomous architecture' is 'revolutionary architecture.' While the notion of 'autonomy' establishes (rather than eliminates, as has been suggested) a dialectic based on the relationship between the ideology of architecture and its context, the shift from 'autonomy' to 'revolution' may be questionable, particularly in terms of its political implications.

It may be because of the risk involved in those implications, that Kaufmann restricted the field of his revolution to the morality of aesthetics. Marcuse, on the other hand, also using Kantian ethics as an intellectual springboard, broadens his scope to the socio-political importance of the order of beauty, which he sees as the result of the order which governs the play of phantasy. We have already followed
the role of Marcusian phantasy to the point where it negates unfreedom by assuming the face of reality, through the medium of art. From here on, Marcuse engages phantasy in a magnificent journey in the field of political mythology. Perhaps it is because mythology is the recorded history of phantasy, or because it draws its themes from the repressed material of the unconscious, that it seems an appropriate vehicle for the legitimization and reinstatement of that material (although his mythology of utopia has been criticized for that very reason, i.e. for being utopian).

Marcuse shifts the operation of his mythology from the field of unreality to the field of reality. He assigns the aim of 'erotic reality' to the erotic element of phantasy. This element is the content of phantasy's commitment to the primary Eros: sexuality is "the only function of a living organism which extends beyond the individual and secures its connection with its species."\(^{50}\) The image of the 'erotic reality' "contains the lost unity between the universal and the particular and the integral gratification of the life instincts by the reconciliation between the pleasure and reality principles."\(^{51}\) Although Freud had not conceded to the possibility of the existence of such a reality, Marcuse's thesis is founded on his belief that his concept of a 'non-repressive reality principle' could become a historical reality, rendering the 'performance principle' obsolete. In the context of political and philosophical theory, this proposition

\(^{50}\) S. Freud, A General Introduction to Psychoanalysis, p.358

\(^{51}\) H. Marcuse, p.146
implies Whitehead's 'great refusal,' the protest against unnecessary repression: surplus-repression. The goal is a state in which human needs can be fulfilled to an extent that surplus-repression can be eliminated. Marcuse assumes the position of this state at the opposite poles of the vicissitudes of the instincts: either at the primitive beginnings of history, or at its most mature stage, made possible by 'technological progress.' Here we may notice the correspondence between those two stages and Boullee's double recreation of the primitive and the ideal universe. Marcuse's claim is that since the division of labour by society necessitated the prevalent instinctual repression, largely surplus-repression, the elimination of the latter would also eliminate the former. In other words, it is not labour itself that would be eliminated, but the organization of human existence into an instrument of labour. The result would be a life without anxiety, the inherent wish in Piranesi's Carceri.
The aesthetic dimension

The political message of Marcuse's claim is the achievement of collective liberty through the immersion in the production process. The polemics of the liberation take form in the socialization of art, which is placed opposite the 'performance principle.' A third entity, the 'aesthetic dimension,' reconciles the disparity between socialized art as instrument of the 'erotic reality' and a non-repressive production process an an elevated form of the 'performance principle;' a disparity reflected in Kant's dichotomy between the mental faculties: sensuousness and intellect or desire and cognition. The reconciling capacity of the 'aesthetic dimension' is legitimized by the central position it occupies in Kant's philosophy: between sensuousness and morality. According to Kant, this dimension is the medium through which the senses and the intellect meet. It is also the medium through which nature and freedom meet (translated in Marcuse's dynamics as the outperformance of the 'performance principle' by technological progress, and the new 'erotic reality'). The mediation is accomplished in Kant by imagination, the third mental faculty, relevant to Marcuse's phantasy.

Having secured a philosophical validation of his 'aesthetic dimension' through its Kantian position, Marcuse proceeds to also validate its
political utility by resorting to Schiller's aim in Letters on the Aesthetic Education of Man "at a remaking of civilization by virtue of the liberating force of the aesthetic function."\(^{52}\) Schiller claimed that the antagonistic relationship between the 'sensuous impulse' and the 'form impulse,' resulting in a destructive violation of the former can be reconciled by a third impulse: the 'play impulse,' which has beauty as its objective and freedom as its goal. Therefore, the political problem of man's liberation from repression, suggests Schiller, requires that "one must pass through the aesthetic, since it is beauty that leads to freedom."\(^{53}\)

If beauty, facilitated by phantasy, is now held responsible for man's liberation through its mediation in the conflict of the 'pleasure principle' and the 'performance principle,' what is its position in the context of phantasy of Piranesi and Boullee? We know already that the meaning of beauty in Enlightenment architecture had disassociated itself from that of the classical order, and we have seen how both Piranesi and Boullee had violated the rules of that order. Beauty during the Enlightenment was not related any more to the external appearance of the object as a reflection of an absolute and divine order, but, rather, as the expression of the rules responsible for its creation and inner constitution. Perrault's 'arbitrary beauty' and 'positive beauty' deal with the object as a working mechanism and not as an aesthetic composition. Here it useful to consider Shaftesbury's aesthetic philosophy (a strong influence on Schiller's), which deals

\(^{52}\) H. Marcuse, p.180

\(^{53}\) Schiller, The Aesthetic Letters, pp.70-71
with the question of beauty expressing the laws which govern the structure of the inward personal world. For Shaftesbury beauty is truth and truth signifies the 'inner intellectual structure of the universe' accessible either through the accumulation of individual experiences or by intuition. This form of experience and of intuitive understanding is available in the phenomenon of beauty, during which the barrier between the world within and the world without disappears.

We can relate this harmony between man and the world to the worldly experience of 'oneness' of the primitive pleasure ego, which we have already linked to Boullee's objective in his recreation of the universe. Is the experience of Boullee's universal harmony also made available through the aesthetic dimension in his work, and if so, what is the content of the aesthetic dimension? As Cassirer points out, the center of the beautiful in Shaftesbury's contemplation is not to be found in the process of enjoyment, but in that of forming and creating. The attention is shifted from the object itself to the process of its creation, which leads us to the true source of beauty, the union of the ego and the world. The artist assumes a Promethean role in claiming God's knowledge of the mechanism of creation. In this light, we see Boullee's recreation of the universe not as an end in itself, but as a means of accessing truth. Boullee's universe does not claim ideal status; it is the process of its making that establishes man's participation in the phenomenon of beauty, through which his liberation and union with the world is achieved. Consequently, the
content of the aesthetic dimension in Boullee is not in the result of the act of recreation, but in the act itself. If that is the content of beauty, then what is its nature?

Man's capacity to imitate the process of his becoming, according to Shaftesbury, is the domain of 'genius' which is regarded as the "highest sublimation of reason, ...'genius is sublime reason,'" a definition in agreement with Kant's own concept of talent. The question of the sublime, gained equal importance to the question of the beautiful after the middle of the eighteenth century. Burke presented its first important investigation in his *Philosophical Inquiry into the Origin of Our Ideas of the Sublime and the Beautiful* (1756), a primarily psychological rather than philosophical essay.54 Because of the inability of beauty as harmony and unity of form to awaken in us depth of emotions, Burke introduces the phenomenon of the sublime as the disintegration, or even dissolution of form. The sublime consists of the transcendence of previous aesthetic systems and derives its effectiveness from it. It accomplishes the removal of the boundaries of the finite, which the ego experiences as a kind of exaltation and liberation, discovering itself in a new experience of its own boundlessness.55 The sense of pleasure involved in the sublime, however, is not that of enjoyment. It is, rather, "a sort of delight full of horror, a sort of tranquility tinged with terror."56 Burke's imagery evokes Piranesi's use of the sublime, in the formal disintegration of

54. E. Cassirer, *The Philosophy of the Enlightenment*, p.328
55. ibid. p.329
56. E. Burke, *A Philosophical Inquiry into the Origin of our Ideas of the Sublime and Beautiful*, p.208
the Campo Marzio and the perverse horror of human bondage of the Carceri. Does Burke's theory of the sublime imply a potential for liberation inherent in Piranesi's work, beyond the representation of unfreedom? The destruction of the old orders in the Campo Marzio promises a state of freedom from the repression of the past, thereby exposing the future as a free field for speculation.

The content of the liberation in the Carceri is a political one. Burke's liberation is two-fold: the inner freedom of man from the objects of nature and the power of destiny as well as the release from the ties of the individual as a member of the community to the social and civic order. He distinguishes two impulses in man: the self-preservation urge and the urge to become part of society. While the sense of beauty is based on the latter, the sense of the sublime is based on the former and results in isolation from society. It gives man courage and self-confidence and "penetrates to the depths of our being and reveals these depths to us from the first time."57 This may be the sense of liberation in the Carceri. Is Piranesi actually excavating the depths of the human soul in his basements, exposing man in his physical and social isolation, and asserting his independence and originality against the universe? Or else, is the extreme state of his political and corporal imprisonment the very premise for his liberation through the sublimation of the self-preservation urge? Given the arbitrary relationships of all the variables, we may only form hypotheses within limits of appropriateness.

57. Cassirer, p.330
The sublimation of Burke's auto-erotic self-preservation urge brings up Marcuse's concept of the self-sublimation of sexuality. Marcuse's term implies that "sexuality can, under specific conditions, create highly civilized human relations without being subjected to the repressive organization which the established civilization has imposed upon the instinct. Such self-sublimation presupposes historical progress beyond the institutions of the performance principle, which in turn would release instinctual repression." The libidinal energy that was repressed during the social modification of the instincts is now being reused towards the sublimation of the pleasure principle to a new reality principle. This process, however does not simply involve a release but a transformation of the libido: from sexuality constrained under genital supremacy to erotization of the entire personality. Marcuse claims that the libido can take the road of self-sublimation only as a social phenomenon: as an unrepressed force, it can promote the formation of culture only under conditions which relate associated individuals to each other. He uses Ferenczi's notion of a 'genitofugal libido' to support his theory of the libidinous origin of culture. This notion argues for a reverse flow of the libido from the object to the body, after the relief of its tension.

58. Marcuse, p.204
Freud assigns the role of libidinal sublimation to the ego, seen from an economic viewpoint of the instinctual dynamics: "Towards the two classes of instincts the ego's attitude is not impartial. Through its work of identification and sublimation it gives the death instincts in the id assistance in gaining control over the libido, but in so doing it runs the risk of becoming the object of the death instincts and of itself perishing. In order to be able to help in this way it has had itself to be filled with libido; it thus itself becomes the representative of Eros and thenceforward desires to live and to be loved." 59

Instinctual sublimation in Freud is an ongoing process; it is prompted by the ego's mediation between the id and the external world, and is inspired by economic convenience. The ego's work of sublimation and identification results in the mutual fusion and defusion of the instincts. Marcuse's sublimation is a long term process of evolution of civilization under instinctual influence and aims at the reinstatement of a permanent state of development. How does our analogy stand between the conservative and the progressive character of the instincts and the corresponding conservative and progressive attitudes of the typological theories of Quatremere de Quincy and Durand, after the introduction of sublimation?

Next to his neo-platonic ideal notion of type, Quatremere de Quincy proposes another notion of type based on its conventional usage:

59. S. Freud, The Ego and the Id, p.46
"Thus, that kind of combination to which the use of wood is susceptible, once adopted in each country, becomes, according to the need of constructions, a type, which, perpetuated by customs, perfected by taste, and accredited by immemorial usage, must inevitably pass into undertakings in stone. This is the antecedent that, in many articles of this dictionary, we have given as a type of more than one genre of architecture, as the principle on which is modeled, over time, an art which is perfected in its rules and practices."

Quatremere's second definition of type seems to be fusing his conservative neo-platonic idea of archetype with a more progressive idea, derived from social and functional conventions. The abstract idea of type is being subjected to rationalization when faced with the question of its production through time.

A similar process takes place with Durand. Durand distinguishes three types of forms: ones that are born as a result of the nature of their materials and the use of the objects in the construction in which they are employed, ones that correspond to ancient forms and proportions, and finally ones that we prefer because of their simplicity and our easy comprehension of them. Durand declared preference for the first kind, only to compromise and show interest in the clarity and simplicity of the ancient forms, for the sake of economy. Finally, still for the purpose of economy, he allowed for the classical practice of composition along with its principles of symmetry and regularity.

60. Quatremere de Quincy, p.149
Composition and economy in Durand, his two general ideas of architecture, become operative parts of production.

The compromise of both Quatremere de Quincy and Durand, in the mutual sublimation of the conservative attitude, promoting the repetition of an earlier state and of the progressive attitude, aiming at the establishment of a new state, occurred in response to the demands of the production mechanism. We have so far established a connection between the production mechanisms of architecture and mental life. They both seem to operate under the same form of instinctual influence, that of the subordination of the 'pleasure -ego' to the reality principle, the origin of social repression. They have therefore developed similar operative instruments, the Life and Death instincts on one hand and the progressive and conservative production processes on the other. The disparity of their different constitution is reconciled in two ways: First, their boundaries are very flexible and allow for their mutual fusion and sublimation. Second, they both strive for the instatement of the same condition, that of instinctual, and therefore social liberation. This state manifests itself as the primitive universe or its projection in the future, as the highest achievement of the social development, and is made accessible through the content of phantasy. The wish for the repetition of the original state is therefore not seen as regressive, but as an act aiming at future liberation. Repetition becomes the recreation of the experience of a past freedom and the attempt for its reinstatement.
Based on our investigation so far, we may venture the hypothesis that architectural production undergoes a process of mutual compromise and sublimation of the two processes involved in its operation. The architectural product starts at the position of the ideal archetype, only to achieve its identification through its immersion in the social dynamics of instinctual repression. It eventually strives to reclaim its first ideal position through the act of recreation which gains access to a more elevated state, relevant to the first one but bearing the influence of all the intervening stages. This position is placed at the most developed stage of the production process, which in its capacity for recreation can gain access to the universal truth, and thereby achieve liberation.
J. N. L. Durand, Facade Combinations, 1809
L. E. Boullee, Project for a Museum
L. E. Boulée, Project for Newton's Cenotaph
L. E. Boulée, Project for a library, interior
L. E. Boulée, Project for a Museum, interior detail
G. B. Piranesi, The Carceri
G. B. Piranesi, The Carceri, Detail
G. B. Piranesi, The Carceri, Detail
N. Ledoux, House of the surveyors
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