The Question:

Imperfection and the Dream

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Introduction:
The Social Significance of Architecture

Today in the modern world we can find two common lines of thought concerning architecture. One is that architecture should be thought of as rationalistic building and the other is that architecture should be thought of as sculpture. They are both mistaken. Architecture involves the formation of a way of life.

Architecture is a craft that touches practically all fields of human activity. It governs our lives and how we move through the world. It sets the framework by which we interact with one another and act. The character of our physical space is responsible for defining our possible actions. Above all this it is the key to forming both an understanding of others and an understanding of ourselves. With this in mind we should look askance at the questions we normally see leveled at architecture. Is it new? Is it contemporary? Is it modern? Or is it old fashioned? Such questions when deeply looked at are complete nonsense. There is but one question that is worth considering when it comes to the arts. Is it human or is it not? Is it alive or is it dead?

The evidence of whether an object is alive or dead is something that is determined not by abstractions but by physical processes. That is to say living architecture is derived both from the activity of people, as a product of participation, and from natural forces. What does this fully mean and what do we hope to gain as a tangible end through the deployment of participation? In order to properly understand this we must take a circuitous route and put ourselves in the shoes of a rooted working class individual. We must imagine ourselves (I assume I am addressing architects) as one who must live with the architecture, the "tiny man" in the words of Alvar Aalto. What this means is that we have a man who won't look to an object and exclaim "what a marvelous piece of deconstructivism" or "oh my how contemporary". Our man is not from among the initiated such that he will not think to apply such meaningless adjectives to the object. He will rather consider the object solely in terms of its own merits, in terms of his lived experience of it.

Lets take a walk. You find yourself on the end of a street. It is paved in stone, you

feel the grain through the soles of your shoes. You look down and reflect for a moment on the laying pattern for the stones but the answer to that question is not immediately apparent. You look up at the gently winding street, you are not on perfectly flat ground and so it moves with the land, and then you look up to the buildings that flank it. Many are of brick, a two inch variety, others of stone, some are very richly adorned others simpler, and some are older with others younger. You look to the surface of one and see the markings and imperfections of a human made object. In its detailing you can see the marks of human intent and the places where the occupants placed particular value. In some areas you can see where new structures had been added, made apparent by the different aging of the material, and in others you see very oddly placed windows. As you look you realize that there is in fact nothing odd about these orders rather that they are very precise. These people are operating with restrictions and in the spirit of true efficiency they are placing these elements where they need them and nowhere else. Its form and structure consequently gives an outward sign for how life is lived within and with that there is a grace to its irregularities. Evidenced here is a process of unfolding where many acts of building have come together to form a whole in much the same way an embryo develops. You begin to understand, you are looking at the face of an organism. Even as an inanimate object it is so steeped in human significance, the outward facing attitudes of its users, that one can study it and learn about the human mind; it bears an expression towards you on the street. You might look to the face of a man and see a certain smile, a character of his expression that tells you in that moment that this person has found himself and is at home with what he is. It is this quality of easy comfort and enjoyment that you perceive in the face of this building as it is in balance with its internal and external forces.

You begin to walk and you study the buildings and spaces that flank the street. In some buildings you see deviations marking them as being used for commerce or production and at other times you see irregularities deriving from a peculiar landscape condition. As you experience more and more of these individual works you begin to see certain threads that bind them together. There is a language present on this street though you cannot describe it. We see a process to determine what is appropriate and it is clear that this determination is made in terms of both the individual's taste and those of the surrounding neighbors. In much the same way that one reaches an idea of what constitutes appropriate behavior as part of a social process, appropriate architecture is determined as

part of a broader social search with ever evolving ideas. This world has a structure, one determined by the interactions of its people both with one another and with their local environment. Within this structure it is easy to read certain idiosyncrasies, indeed it is solely from this structure that they gain significance. The language is a sort of guideline, a means to remind us of the forces of life and how to act in a way that satisfies our base nature. It is in essence a reminder of what is truly important free from any current ideas or prevailing opinions.

These works of architecture are not trying to be like anything. To ask the question of them are you modern? or are you traditional? is altogether meaningless as they are not attempting to adhere to such an external formalistic idea. What we can say is that they are and that they live. Their existence and their vitality comes from their attunement to the forces at work here.

You turn your attention away from the built objects and begin to follow the thread of human activity around you. You routinely see people gathering in the irregular nooks from offset buildings where they have introduced a place of repose as part of the life of the street. There is a small band of defined area between public and private outside the doors of the streetside houses where occupants sit out to softly participate in the community life and often to watch their children play in the street. The producers and workers of this place operate close to where they live and as such the distinction between work and family or community life is very little. You see young people together in patches of park and garden enjoying the afternoon sun and other sat in the shade reading. You pass a stream and on the edge of its masonry embankment you see couples lying together enjoying the sound of the water and nearby there is a line of people fishing. The material structure of this place not only remembers and solidifies older activity but suggests new ways of use, of living, and of finding happy moments. This human world is one of activity and of potentials partially unlocked by the material environment they have created and partially waiting to be discovered.

You turn to the people that share the street with you and share some words. You find it easy, relaxed, and why would you not, you already understand them. You are standing in a world of shared and understood values to which the human belongs, interaction is easy.

You come now to a broad square. On one side is an ancient church. Its formerly pale stone has built a dark patina, the record of countless seasons passing it by. Its style reflects the tendencies of a far away culture seen with new eyes and adapted to the local traditions. A builder long ago had traveled to distant lands and come back with an innocent conception of what he had learned which the town took to making, to adapting, and to pouring the marks of their own imagination. Surrounding the rest of the square are both public and governmental buildings. The centers for civic life and those places that fully embody the collective values of our residents. You look to one side of the square and see workmen sat on squat stools laying paving stones and your previous question of the pattern is answered.

We travel on and find the character of the architecture start to change. The natural progression of organic individuality starts to decline and more and more we rather see a vast field of the same brick buildings lining our street. Mechanical standardization begins to take root. In the gardens and around the structure we can see some mark of people individualizing their spaces. The decorations are good and well done but eventually you see them for what they are extraneous ornaments desperately placed by their people to draw away the heavy inhumanity of their houses. In some way the spark has dwindled and you find your attention is spent less on your environment.

You see your first building of steel and glass rising next to the street. You look to its shining glass panels and simply see your image reflected back at you. There is no evidence of natural forces at work, no accommodation for aging or change, and there is nothing to suggest human forces, either human decisions or human activity. There is nowhere for your eye to rest and nothing to learn from this work and without the opportunity to contemplate, you look away. As you travel on you suddenly realize that you can no longer feel the street's surface and you look down to see that cut stone has been replaced by poured concrete.

You find yourself increasingly surrounded by these luminous glass creations. The street has become a conduit to which our new buildings stand as cliffs for all the activity they express or invite. Where before you could find an abundance of relaxed activity on the street, now it is for movement. All activity has been pushed indoors and the possibilities of the street have been all but eliminated by both the imposing built structure and the car to which you have become an

appendage. Where before you could read the forms around you as things people arrived at in response to certain forces, now you read your surrounding forms as imposed. The order of the world has taken on a mechanical aspect and the buildings you are surrounded by are indifferent to the aims and thoughts of those humans that surround and inhabit them. With the built environment shaped by forces and values that you cannot identify within yourself, you find you are increasingly at a loss for what to do. You find yourself buffeted by the wind as natural forces are shaped into something more hostile and with nothing to look at and no possibilities for activity, you begin to move faster. You turn and look to the surrounding humans and find that not only are they too moving at a greater clip but that they are different than before. Their eyes are cast downwards as they either study the phones in their hands or carefully avoid the gaze of others. You find it odd how everyone has suddenly become a stranger to one another. You see a new housing tower rising beside the street and as you look you can find neither the mark of individuality nor the spark of a communal search but rather you see an imposing prison.

We have come to an architecture that is decidedly antisocial. You look to these given contemporary works and ask what they could be. You receive no answer as the object is derived from processes to far removed from human intuition or understanding. They cannot be anything else and as such are not open to meaningful human interaction. At best we have something that is indifferent to the lives of humans and at worst we have an expression of top down dominance over life. A tyrannical order made physical.

As you walk on you see certain change in tendencies among the buildings. Their formal rigidity begins to loosen and you see stranger and stranger forms appearing. This does little to give them any real meaning or suggestion of activity however it does open to a game. You look to these increasingly absurd shapes and in an effort to imbue them with any kind of meaning you relate them to other objects just as one does when cloud watching. Look at that it is coffee percolator, look at that it's a quartz crystal, and look at that it is a pair of testicles. Soon your amusement at the game wears off and then the desolate feeling sets in. You are surrounded by architecture that does not reflect anything human back at you. Your environment rejects you in no uncertain terms and you begin to see yourself as not belonging to the world. Then comes depression and anger as you realize you have become a slave to empty technical concerns to the detriment of any

social life or individual fulfillment.

It is not so with real architecture. If we are to describe the act of apprehending true architecture it is one of perceiving processes. We may look and perceive history as it takes concrete form and becomes real. It is a matter of reading human actions rationally undertaken written into the material world. This reading of human processes allows us to come to a deeper understanding of the workings of the human mind and imagination. In the material world we may see human values written as in their ways of living people give evidence to what they deem important. It makes an individual's picture of the world solid and manifests their feelings. Further, real architecture gives energy, it is an outlet and means to resolve our internal contradictions and thus frees us to act with an openness and vigor. Contact with such a material world leads us to a greater intuitive understanding of what is important in life and to distill from this understanding a vision of our ideal self. Architecture creates a world that the human can feel as coming from within him and then find around him.

Architecture is an expression of a sort of language that lies beyond description. A language formed of innumerable ordinary creative acts. A pattern of living that manifests itself as material. Physical space manifests certain behaviors, attitudes towards the world, ways of thinking, social organizations, values, and events that recur. Every township, every grouping, every individual, and every building is defined by patterns of activity. When we look to Venice we see small islands, a network of canals, small winding streets, building built right up to the water and an overarching structure based on a sort of clustering around public places. If we look from Venice to an old Greek city or an English village we can see certain similar patterns. It is not that one can make a direct comparison as the ways of life we are describing are quite different but we can discern a thread of encouragement for social and civic engagement. Consider a divergent example in the architecture and fabric of old Morocco. We find built order of very small streets often stopping in dead ends, shadowed doorways, and extremely outwardly bare introverted courtyard type houses. This order can be identified with the climate, the need for defense, and, more interestingly, the system of taxation used by the sultanate which was not unified or predictable. If the sultan needed funds for any given reason then he would requisition those from those people who had money and this created an undoubtedly stressful situation which people resolved by collectively hiding what they have. They created a sort

of herd camouflage to protect themselves from an arbitrary kleptocracy. The built order sets a certain social order for a people and reacts to the existing one. A people's well being, sense of belonging, cultural awareness, and sense of social duty is dependent upon the order of the world. If we are to place value on participation then it will come that our environments will speak to this value and by their essence bring the mind to social understanding and engagement. This is a language of living that the built could whisper to us.

The built environment creates in physical form a collective memory and consciousness. Architecture is not an autonomous art form as painting or sculpture which need only exist. The importance of architecture is dependent upon the degree to which it is engaged with and effected by the broader social life. Arguably a building is merely potential architecture. It begins as walls, floors, columns, etc and becomes architecture only as it is used, as it absorbs the marks of human action. A building is not given life by its shape or plan but by the events that occur within and around it which influence one another in a circular manner.

Hegel once made the analogy of a boy throwing a stone into a pond and looking with satisfaction on the ripples he created. We have to be able to see such ripples, the marks of human action in the world, and their conspicuous absence in the modern world means nothing less than the loss of the art of architecture and the loss of a living environment. This is not something that can be solved using this or that new form or tool and it is not a question of applying new materials. A purely scientific analytical approach to the 'problem' will continue to leave us impoverished. Indeed to even consider architecture as a problem solving activity is mistaken as the nature of an architectural problem is extremely transient. The solution lies in the conception of architecture as a process, one of synthesizing innumerable human functions both tangible and intangible in an organic ever changing material environment. The only way to achieve this is by social means and by leveraging the human element.

This will require a certain degree of popular education. Much of what we can regard as inhuman in modern world was allowed to come into being as a result of public lethargy. I do not mean to suggest that people somehow do not know what is good for them and require re-education. Rather it is that they lack the tools and skills to adequately see themselves as participants in their world. The

conception of architecture as a form of isolated laboratory science to be solely practiced by learned 'experts' seems to hang on our consciousness and it must be hastily dispelled. In order for an art, and artist, to thrive there must be understanding and sympathy for the work. This and only this is what creates a climate within which an artist may honestly and genuinely pursue his craft. Without this climate then the 'why' of the art gets lost and the artist begins to produce a consumption commodity, something to passively look at, rather than real art. Architecture, being the most social and the most broadly influential of the arts, is keenly dependent upon collective understanding and participation to animate it.

In ancient days society was less specialized and about everyone had a hand in the arts and the creation of their own environment. This meant that the arts and architecture, far from being formalistic academic pursuits, were broad popular ventures that everyone understood and considered in terms of their common life. Cities, townships, and architecture grew out of a bottom up process generated by the ordinary actions of people. The built environment comes to present a search for the appropriate and for satisfaction in life which takes on our aspect of the shared language. Unlike today's specialized and more stratified society, creation was not for the privileged few but the right of the many. This is something we must strive for if we are to draw architecture out of academic irrelevance and back to a real connection to life.

There exists within all of us a dream. At the heart of all humans is the childlike impulse to imprint ourselves upon the world. To take the patterns of the natural world as we find them and to complete them with a part of ourselves. The sun rises and sets passing through windows and warming masonry surfaces on which flowers grow. Wind blows through the trees and grasses rustling their leaves. Rain falls and little creeks fill with water. The seasons pass and change. Within all of these processes humans search. They search for those moments when they are happiest and most at peace with the world and themselves. They then solidify those moments to share with others. To produce quality, to create what is praiseworthy, and to inspire our fellows, this is an impulse that lies at the heart of human cultural life.

Human psychology demands this search and for constant change and renewal. It can ease the pressure and stresses of life by changing an environment. Consid-

er for instance an open field of grass and on it are three small bare mounds each with a seat on top (one can find this situation near Lund's city hall). You will be hard pressed to ever see anyone sit in those chairs and when you try you immediately feel uncomfortable. The reason for this is that there is a tension between the human action and the environment. Instinctively we feel unsafe up on those mounds with our back exposed and pair this with the expected act of relaxing and it introduces a stressful contradiction that one will look to escape quickly. Now with an expectation of change then the people that use this place might introduce a structure along those mounds in order to undo that stress and bring that place to one where repose is possible. Consider further the idea of room with a set of windows on one corner and in the opposite a grouping of chairs and a table. Humans by and large tend to gravitate towards light and avoid dark corners and so there is another tension here where we are forced to sit in the dark and look at the light. Rather than being significant architectural elements the windows in this case are merely holes in the wall. To undo this tension one can simply move the furniture into the other corner but why stop there. Perhaps we build a row of seating under the windows and create a permanent material manifestation of our contentment sitting under them. Life is full of such stress producing tensions and it is an enriching act to shape our material world to sooth them. Indeed we can view much of cultural efforts as a sort of coping mechanism and means of softening our lives. We should further understand that these tensions are often unpredictable within the massive framework of human functions and psychological inclinations. To meet this, man's environment must be filled with opportunity for constant change and the allowance for normal humans to change it.

With architecture framed as gaining significance solely from its relationship to the patterns of life that move around it, we should look skeptically at the contemporary field. A work of architecture is alive or dead in terms of how readily it accepts and expresses the aims and creativity of its people and the natural forces at work. At its core then architecture is about giving field to activity; true architecture is something that answers to actions and potentials rather than acting as a visual symbol.

It is a matter of working with processes and forces. Considering the impact that the material world has in either constricting or freeing our potential behaviors, it becomes extremely problematic when we see these strictures as coming from

an external place. Consider the concept of manners and decorous behavior. They typically arise as a means of tempering our internal forces in a way that allows their expression in a constructive way. Courtship rituals rise out of the basic internal desire to procreate for example. We have a social convention that answers to giving an outlet to an internal force. Without it we would be left uncertain of what to do and thus simply act on short term impulse as opposed to what is beneficial long term. As conscious and social creatures we form these conventions to gain an understanding and control of our base nature and these complex behaviors only have relevance when we can identify them with our internal forces.

This is not to say that architecture is a wholly anarchic endeavor. Anarchy in most any social affair does not lead to good places; humans tend to need a center around which to operate and the architect in the cause of creating an environment is this center. Consider a large empty field and the idea of bringing one or many humans to it and giving them the task of making or doing something. They would look at you blankly, there is no indication of where to start, no pattern of forces or framework to operate within. Architecture is about giving possibilities to such a place and a certain framework within which humans may operate. Consider the idea of a stream, on its own it has few possibilities but introduce stairs down to the water, a jetty with a little boat, and a wall holding the bank and the possibilities for human action and creativity expand dramatically. This built material framework must be in harmony with local forces, the natural world, the social life, and the psychologies of its users. It must avoid tensions and conflicts with basic human nature, it must not be an imposed order, but rather one that allows us to freely resolve our tendencies and internal conflicts. Consequently it should not be thought of as a one off design that is then built but rather a sequential process where a work of architecture is given substance by the gradual process of creation. This I think casts the art of the architect as something very different from the art of the painter or sculptor. It is the grand cause of giving new possibilities for action and self realization and this requires a deep intuitive understanding of the social life and inclinations of a people in order to not act in a destructive manner. I would say the art is more similar to that of statecraft than anything else which demands both extreme reach, extreme competence, and extreme humility. The province of the architect is to determine the what and the why, to act as guide and harmonizer, however the exact nature of the architecture, the how or language, that is something that

cannot be imposed by the few but must be found by the many.

No matter how socially conscious the architect, it is in the process and conception of architecture that it becomes human or not. Consider a work that comes about from a distant architect scribbling on paper. Such a thing will always be to some degree alien, the users cannot conceive of it as coming from themselves. Now imagine a participatory process and there two ways we can conceptualize this. One involves a conception of a building or town as constantly unfolding. We could say that architecture is something that is permanently unfinished. When one interacts with such an object then it engages the imagination. The game of the interaction turns from considering what is to what could be and of crafting a dream for how an environment could be better. Once this is established and we consider our space as existing to engage the creative energy of its occupants, then the only step that is left is to provide the freedom for them to realize their dreams of what could be. The second concerns involving people directly in the work to craft an environment. That is to allow the peculiar lives and ideas of normal people to help shape the concrete object. There are definite risks when one considers this as a method. As a process it could very well simply turn into meaningless stylistic bickering and compromise ending with a bland object. It falls to the architect to head off this eventuality. This brings us back to our earlier comment on what and why, in order for a process like this to work then you have to have a collective understanding of what you are doing derived from a consciousness of place, natural forces, and context. With this established the participants can concern themselves with the more pressing issue of how life could be lived and move through the object. We are not then so much talking about individual preferences and instead the conversation is closer to a moral one. Our concern inevitably is not just how life could be lived but how life should be lived which we must consider as being objective and something to hold up through argumentation.

Imagine for a moment this process at work. We have a group of people, architect included, and we walk out to a site. The process of determining the shape and orientation of our building comes from a process of argumentation of what is important. Where does the main entrance go? This we can work out from values, should it be in close proximity to the main road or should it be sheltered? From there we can determine how to move through a space with the body, what should you see as you enter? How visible and accessible should the gardens be?

Where do we want light? And all the masses of interests that humans might have in connection to how they live their lives. Our group would move around waving their arms arms about and gradually reach an intuitive determination of what life should be like here through a vivid and immediate imagined experience. Always the architect is simply another voice in this conversation and the one to determine if and how something could work or, if necessary, the one to put fire in the conversation. Through this variety of direct participation at a broad scale humans will bring their environment closer to what is pleasant and by this action they connect themselves to a place which brings it to life. We have the beginnings of organic invention and experimentation that marks the birth of a substantive style of architecture directly connected to life.

There is nothing particularly original in this discourse on the relationship of architecture to life. Indeed more than anything we are attempting to pick up on a thread of thought that is as old as architecture itself and work to understand the central question of this profession. More recently architects have explored it as a means to return to the fundamentals of architecture in answer to rigid dogmatism of early modernism and now we find ourselves obliged to follow the same path to escape the empty formalism of this age.

Alvar Aalto, being one of the fathers of true modernism, is a very significant figure in this conversation. In his latter years he both grew increasingly despondent concerning the course of architecture and increasingly obsessed with what he called 'the human factor'. In one of his last speeches (Helsinki University of Technology Centennial Celebration, Dec 5, 1972) he spoke of the meaning of architecture and the inescapable presence of human error and human imperfection. In mechanical, social, and architectural endeavors it is impossible to escape from technical errors and any improvements that one makes will make new problems. Aalto spoke of this factor in relation to the trends of absolutism and formulas in reaching good architecture and the destructive impact of this escapist reductionism from architects. What he is after here is thought concerning processes with the notion that since you cannot ever eliminate human error, or more accurately unpredictability, formulas and theories regarding building are wasted. He ends this particular talk by saying:

"Perhaps we will all be architects, we will all be human beings by then (in one hundred years). Let us hope so. We may not be able to eliminate error, but what we can try to achieve is that we should all commit as few errors as possible."

Throughout his entire career Aalto was a humanist. This was at the core of what it meant to be a modernist to him. He rejected the psychological slums as he called them that had cropped up as a result of shallow modernists designing for a look and mechanization running out of hand. There are many of his lectures relating to this 'Between Humanism and Materialism' and 'The Enemies of Good Architecture' are two prominent examples. With this he regarded most self styled modernists as not modern at all in their dogged efforts to ignore the human with obvious results. What did it mean for Aalto to humanize architecture? In essence it means attending to the psychological and physiological effects of the built, architecture's effect on the mind and body. This human quality was always elusive in its details but it lead him to the fundamental connection between being human and being an architect as a part of life.

Christopher Alexander is another figure in this conversation. He was not interested in fashionable or transient thinking rather he was interested in timeless architecture and the 'quality without a name' as he put it that makes architecture timeless.

"There is a central quality which is the root criterion of life and spirit in a man, a town, a building, or a wilderness. This quality is objective and precise, but it cannot be named"

The Timeless Way of Building, P 19

This nameless quality of his is what marks the objective difference between a good building and a bad one, between a good township and a bad one. We might think of it as connected to freedom, in how freedom is possible when a person is not so tied down by repressive external forces of any variety that the possibilities for their action and self expression is limited. We do not have the space here to explore the full length of his thinking so suffice to say Christopher Alexander was interested in the means to make a place live and the factors that make it so. The core of what makes a building or town live is twofold. One is that it is in tune with the forces acting upon it, in the human sense this means that it is pleasant to be in acting in line with our psychological peculiarities and in the natural sense this means that it is capable working with its own environment and lasting. The second aspect is in how well a building or town invites activity, possibilities, and the free expression of creative energy, that is in how well it

allows humans to resolve their inner stresses through imprinting themselves upon the world. That is that he was talking about the fundamental connection between the quality of human life and the quality of an environment in how architecture is tied to opening up the capacities and intellectual energy of humans.

Herman Hertzberger along with Alison and Peter Smithson approached the question in a similar manner through an idea of territory. This idea concerns how humans interact with public and private space, in a gradient, to mark a place as their own albeit sometimes only temporarily. It is about people gaining a sense of ownership for a space and then feeling free to then mark it in a way as their own and to then express this. As one shifts along the gradient to public space then responsibility for the order of a space becomes less the province of an individual and more a communal multiplicity of individual efforts. If a place is pleasant to be in, if something is built and proportioned such that the architecture makes us want to be in a place, then inevitably humans will shape it to sometimes unpredictable uses in unpredictable ways. The Smithsons described this in terms of new uses people invent for the places they are attached to, kite flying on a renaissance fortress for instance. We are after a human environment in that it must be one that allows for direct involvement on the part of those who benefit from it. In the words of Hertzberger:

"The point is to give public spaces form in such a way that the local community will feel personally responsible for them, so that each member of the community will contribute in his or her own way to an environment that he or she can relate to and can identify with."

Lessons for Students in Architecture, P 45

Sometimes the scale of a thing grows too large and the rules surrounding it too constricting for humans to identify themselves with it as growing from them and as something they are responsible for. Hertzberger described this along the lines of how the overwhelming order of our places and lack of participation creates a tension where we live with conditions that we can neither ignore nor concern ourselves with which creates alienation both from our environment and the people we share it with. This alienation can further be said to manifest itself behaviorally in vandalism which we might see as a backlash against suppression by environment. The lack of participation creates a hostile world. The role of the

architecture itself is to coax the individual out into public life. A simple example of this is the covered front door that invites a projection of private life outside and creates an area that is both the felt property of the individual and a part of public life. When this varied territory is established then humans will freely use a place, to add to it, and to layer new structures and suggestions of activity; this was the aspect of living architecture that Hertzberger and the Smithsons explored.

Now we come to Giancarlo De Carlo who, for his central role in Team X, we might consider as the most recent intellectual center of this conversation. Where Aalto was despondent about the prospects and impact of architecture, Giancarlo was downright angry with the situation architects had, and have, created.

"The period of heroes, of the born-again, of the universal solutions is over. Function no longer automatically generates form, 'less' has ceased to be 'more' and there is little probability that 'more' will again become 'less': utility and beauty are no longer two sides of the same apple....since it has not been possible to deal with the quality/quantity dilemma, the whole problem of planning for the great number has been eluded, simply by slipping into monumentalism or formal utopia, with a great production of 'hypotheses' for mausolea, megastructures, universal systems, futurables, etc. designed mostly for art galleries, current events magazines, and in certain cases as ornaments for the demagogical programmes of administrative boards and state bureaucracies. In the mean time, problems of territorial organization – of urban reorganization, transport, housing, facilities, the workplace – remain unsolved"

Architecture's Public, P 11-12

That is to say that Giancarlo, like Aalto, regarded architects as ignoring the real of problems of life and hence rendering null the credibility of the profession. Architects derive their sole reason for existence from human life and by ignoring this human element there is no longer any reason for architects to exist even though architecture will always be a fundamental necessity. A main point in giving value to life is through a concrete material means of self expression and the conscious act of shaping one's world. Architecture in any meaningful sense is about bringing people to feel as a part of this world; to soften or eliminate the top down structures of life and to end feelings of alienation and exclusion. To

Giancarlo then architecture is too important to be left to architects and in order for architects to become again significant players in human existence then they must break down the barriers between user and architecture and with that to operate as a liberating force in a people's entire social consciousness. Participation is the key to this rebirth and renewed purpose. It is a consideration of architects working with people as opposed to for people which opens the resultant architecture to being capable of meeting the many intangible objectives and actions with which it must reckon in the process of its life. In essence for Giancarlo participation was the means by which architecture can shift away from authoritarian environments and into a process based idea and the creation of stimulating places.

With the realization that the why and the what are our primary concerns as architects we must set out to determine the implications of this thought. What are the processes at play in architecture? It is this subject that brings us to the main part of our investigation.

1
The Question

What is architecture? What is its source of value, beauty, and content? What makes a building more than just an object but something with the capacity to confer meaning and to inspire? How can architecture best be approached in the future?

To determine value architects must address the most fundamental question of 'why' in the field. To address this question we must explore where architecture comes from, how we experience it, and what it gives us. We must approach and work to understand the realm of the beautiful that we may effectively combat the apparant plight of the architectural profession. Art and Architecture of any merit does not simply fall out of the sky. To begin to answer these questions consider the saying, "Homo sum: humani nihil a me alienum puto"- "I am a man: I regard nothing human as alien to me"(1).

Moving forward, the cautious view is that such a conversation on 'the question' will by its nature be incomplete permanently. This paper is merely representative of my own thoughts, my explorations of the thoughts of better men, and in some cases an interpretive mix. I doubt that a singular answer may be given to this line of questioning and more than this I do not think that it would be particularly helpful to arrive at a concrete answer. As with most such large questions of life, the value lies in the exploration far more than the destination.

Piranesi: *Pons Aelius*, 1762

2
The Historical Trajectory of Thought

The current state of architecture is the product of a long line of thinkers. The history of architecture reveals an evolution of ideas, morals, attitudes, and worldviews that have marked the various architectural epochs that collectively determine how the modern way came to be. Volumes have been written on these subjects; this paper will briefly attempt to distill a vast body of thought to understand the thoughts and trends in past societies that gave rise to their specific arts. Through this distillation, a more complete understanding of the current age, along with the 'question', should be possible.

As a starting point, note that historicism presents a troubling albeit popular way of looking at architecture. Karl Popper (2) and Roger Scruton (3) have discussed the issue at length. The idea of a "spirit of the age" has been fashionable for some time but it can distort understanding. The history of architecture cannot be viewed in an overly narrow and deterministic manner. Architectural styles cannot be wholly isolated to precise periods. There is a tendency for historicists to claim that the only successful work of architecture embodies this idea of a zeitgeist-ruling spirit of the time. This narrows any attempt at understanding architecture and is unsatisfactory as a critical method in examining architecture. The first issue with historicism is that it can only operate retroactively and must mark only very specific architectural pieces to create a false consensus while ignoring the inevitable architectural pieces that run counter to its deterministic theory of the age. To reach a description of a whole society is impossible as the study becomes infinite owing to the need to examine all individuals. Any conclusions about the nature of a society will be based on very selective descriptions and it is then hopelessly illogical to take those and claim that they both have universal validity and the authority to predict the future.

For example, it was supposed that the Bauhaus-type modernism of Gropius, among others, somehow reflected a new spiritual reality of the modern man; this was asserted to be the "style of the age". This assertion could only be reached after the fact and only by ignoring the no less admirable work of the architects who did not subscribe to the idea of international style. In every architectural epoch there have been examples of architecture that looked backwards to past ages. Architects did not cross the 1920s and feel obliged to throw away the ideas, aesthetics, and processes that marked past epochs. The ideas of the classical or Gothic architects are as relevant today as they ever were. It is difficult to say that there is or even should be a style of

Plate 1 Thomas Cole, The Architect's Dream, 1840

an age. The idea that architecture should be made to look a certain way simply because of the current year, without regard to expressive aims or individuality, could at best be called offensive. The 'spirit of the age' if there can be said to be one is neither predictable nor set in stone but subject to change as with any organic idea pertaining to human behavior. Any attempt at declaring a singular style as somehow exemplary of some new spirit becomes a hopeless exercise in self-fulfilling prophesy. International style was thought to embody a new spirit and because it embodies a new spirit then it is the only valid approach to architecture. Architecture operates on a more fluid continuum and after the inception of an idea, it is etched in architectural consciousness as part of an ever expanding language. Consider The Architect's Dream (Plate 1) in its depiction of this flow and the changing, expanding, but always interconnected ideas of architecture, the ever changing dream written into the physical world that is the profession. One can mark major additions to architecture through shifts in habits and thought across time and across cultures. This in the end is what constitutes "style," a state of mind animating an epoch. This paper will focus more on thoughts and the nature of this animation as these are more important than the physical objects to building an understanding of current thought.

One should consider carefully when looking backwards as there is both value in the past and huge pitfalls to looking with a shallow or uncritical gaze. There is a tendency among traditionalists to simply design architecture in terms of what they

Plate 2 Doric temple, Segesta, Sicily, 420 BCE

think it should look like. The revival movement becomes a bland exercise in aping the past. They would trade in one set of arbitrary rules for another. For my part I have no interest in being bound according to some far off idea for how things should look without regard to the life they serve. William Morris wrote on the subject of the neo-classical tendencies in his own age describing how a Greek temple as a holy railing was built around a shrine that arose from the Greek climate, landscape and the mood of its people (Plate 2). It is something that they wanted and it becomes the height of absurdity to force this on a modern city far from the climate and needs of ancient Greece. Consider the manifest absurdity of this in the Grand Palais (plate 3). Nostalgia or the behavior of blindly giving authority to age, now as ever, can be a very unproductive tendency which should be approached guardedly.

   The true merit of traditional architecture is found in the processes that birth it. When the pitfalls of a shallow gaze are avoided, there has been a near infinite field of great works of architecture born from looking back. Indeed there are many examples of explicit revivalists capturing the spirit and ideals of a past age better than the originals. One can look to William Butterfield, for instance, (Plate 4) and find the energy, vitality, and above all color of the Gothic brought into stark relief centuries after that age. The great richness of architecture throughout western history can in no small part be attributed to this habit of looking back, of drawing in, reanimating, and reapplying the ideas of those that had come before and above all of learning from them. In the words of Adrian Stokes describing the Renaissance, "what lay separate in Greek myth, in Greek life, in Greek sculpture, after long storage in the yearning heart appears concentrated with the full force of rediscovery; a pagan essence, undiluted, snatched from Time's filter. Thus the past can be concentrated, by virtue of a synthetic

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Plate 3 The Grand Palais, Paris, France, 1900

act which is more closely creation than re-creation" (4). The great achievements of the Renaissance would have been impossible had those men not looked backwards and internalized the glory that was Greece and the grandeur that was Rome. A depth of understanding is necessary to reanimate or to meaningfully learn from the past.

To refer to Sir Joshua Reynolds (5), beauty is found through intensive study. It is the work of an artist to look to the world, to the aspects of species, of objects, of humans and to distill from their great diversity an idea of their distinct beauties free from the fashions and prejudices of the age. Consider human beauty: if one's experience of humanity were limited to a single individual then one might consider that individual as encompassing all human beauty as there would be no other references. Now introduce a second human and our conception of human beauty turns from being embodied by either individual into an abstract one encompassing the ideal and essential traits of both. This idea of beauty will then be informed and expanded with knowledge. By looking backwards to past artists and their ideas new aspects of the ideal and the essential might be discerned that would have been elusive otherwise. In each stage the idea of what is essential and beautiful is incomplete but it can be made less so through study. It is not that beauty is a particularly elusive or far away concept, it is that we can change our individual ideas on it. Architecture is no different in that any attempt to discern the important and essential aspects of the field would be hobbled without a look to the thoughts of the ancients. In this context it would be a great folly to explicitly ignore centuries of accumulated practical wisdom.

The logical place to start when marking the roots of current western architecture is with the Greek philosophers. In particular, Plato and Aristotle crafted some of the first efforts to approach a critical philosophy of the arts and beauty.

Plato on productive craft, imitation, and morality

One striking point to Plato's writings is that he does not make the clear

Plate 4   William Butterfield, All Saints Church, Margaret Street, London, 1859

distinction between utilitarian crafts, fine arts, or even statecraft. These all fall under the banner of productive crafts. They all require specific skills, knowledge of what is appropriate and, through some material manipulation or assembly, they bring something new into the world. Productive crafts require a plan and a goal for intelligent work to be possible. Productive work becomes an act of imitation in some way as having a goal means formulating an ideal for what you want to achieve. The work becomes an imitation of an ideal

This idea of imitation or of representation in human activity is well worth exploring. In The Republic Plato explores the issue in an extremely metaphysical sense. To explain in a very crude way, there are levels of reality in Plato's thought; the lower levels are imitations and representations of the upper. There is an ideal form of an object that is eternal, immutable, and perfect, something divine in that it is an existence that can only be grasped by the mind and this represents the highest order of reality. When an object is crafted it is somehow based on a conceptual grasp of this highest ideal and so the resultant form of the physical object is an imitation of the perfect and eternal form. For instance if a craftsman were to make a knife, he must start with a conceptual idea of the purpose that knife will serve, and of the form of a knife that serves this conceptual purpose perfectly. The physical object that he produces is an imitation of the perfect conceptual knife. To then move down to the next

Plate 5   Mosaic: Alexander and Darius in Battle, Roman copy of 4th century BCE Greek painting

level, an artist might produce a picture of the physical knife and this picture in its turn will be less real than the physical knife. He further discusses imitation in the Sophist and introduces divisions in the idea. There are two types of artistic imitation. There is the type of producing a likeness of an object or rather as faithful a reproduction of it as possible within the medium. There is another he named phantastic art that produces an appearance but not an image; it will ignore the real proportions of that which it imitates in pursuit of beauty. For example shifting the proportions of a sculpted form away from its true form to account for the position of viewers. Further, this art is an illusion and deception. The artistic image leads us to think falsely about a subject through embodying the contradictory state of being and not being. Art then has the potential to draw away the mind to give understanding of things which do not exist and to give false understandings of things that do. An image of an object is not the object but gives the false sense that we understand the object. In the Sophist, Plato does make the distinction that not all production is imitation as to be an imitation it must be less than the object it seeks to represent. "And what of our human art? Must we not say that in building it produces an actual house, and in painting a house of a different sort, as it were a man made dream for waking eyes?" So we have some arts which can be considered genuine productions and architecture appears to be among them. These thoughts seemed to lead Plato to an absolute disdain for certain branches

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of the arts because of their ability to cause moral harm.

Morality in the arts is a subject that Plato explored in book X of The Republic. The principle is that an imitated image is far away from reality and yet gives people the false sense that they understand the subject. Further, when the subject of imitation is human nature and human behavior, as with poetry and plays, then it leads to a false understanding of themselves. "Poetical imitations are ruinous to the understanding of the hearers, and that the knowledge of their true nature is the only antidote to them." Not only does the work of the artist deceive in itself but it also frames the artist as a charlatan laying claim to knowledge and understanding that they do not in fact possess. Plato considered that if artists possessed real knowledge of craft then they would not settle for creating hollow imitations but rather genuine objects. "The real artist, who knew what he was imitating, would be interested in realities and not in imitations; and would desire to leave as memorials of himself works many and fair; and, instead of being the author of encomiums, he would prefer to be the theme of them." . The artist knows nothing of true existence, or of what makes an object good or bad, but only of appearance. Then, through art, knowledge of the forms and nature of things is influenced and then these things will be shaped to an artist's vision rather than to reality.

Plato and Aristotle on Beauty

Beauty is a characteristic held to varying degrees by objects, nature, people, and things. The transient nature of beauty was recognized. Plato believed that a beautiful object was manifesting a part of an essential or transcendent form of beauty. This true beauty is something that cannot be found but remembered, a place that we lose sight of in life but can find our way back to with effort. He conceived of this perfect beauty as something existing outside the physical realm, a concept that could be grasped by the mind but never seen by the eye.

Aristotle further explored the issue of beauty by looking at the paradox of the tragic play in Poetics. A tragedy is a play imitating a complete action but also of events inspiring fear or pity. There are two aspects to the tragedy that sparked this line of thought. One is that people voluntarily go to such events, hence must enjoy them; the other is that these plays are based in negative emotions and unpleasant events. Beauty comes from a certain pleasure of an experience and so the nature of this pleasure was of great interest to Aristotle. He came to two conclusions, that it is the experience of an imitated act that is pleasurable to thinking creatures for its instructive capacity and that the nature of the pleasure experienced depends on the intensity of the imitated event.

In further writings, they expanded upon the ideas concerning beauty. In complex things Plato marked the root of their beauty in the relations of part to part and in the ideal and precise proportions they use. Part answers to part in balance or opposition that gives the whole a completeness and "dynamic stillness." The qualities of measures and proportions are what constitute beauty and excellence; they are essential to the beauty of a complex object. Aristotle echoed this sentiment when he said, "a beautiful thing, either a living creature or any structure made of parts, must have not only an orderly arrangement of these parts but a size which is not accidental – for beauty lies in size and arrangement" and "the chief forms of beauty are order and symmetry and definiteness."(In this context, 'symmetry' could perhaps be better understood as 'balance'.) A very small organism cannot be beautiful because it exists in an almost imperceptible moment and a very large object cannot be beautiful because the eye cannot take it in at once and it loses a sense of unity (6). In simple objects, beauty comes more from the elementary qualities of sensory experience. These are beautiful not in relation to anything else but in themselves, as pure notes of music or geometrical forms. They do not need anything else to be considered beautiful. What all of these have in common whether it is a temple, a geometric shape, or a pure note, is unity, regularity, and simplicity. These are what give objects an ideal character and support their beauty.

In these Greek ideas we can see the shadow of a fascination with perfection that William Morris describes in his account of the period. To Morris' eyes, the rigidly conservative formal character of Greek architecture grew from an exclusiveness and aristocratic arrogance which led to a demand for perfection. This formalism led to a painful tension within their architecture as civilization advanced along with sculpting and ornament. The progress of Greek arts demanded greater naturalism and freedom which clashed with the rigid demands of the architectural whole. This continued until the sculptural and ornamental parts became an extraneous art bound to architecture solely by habit (consider the Pergamon Altar, Plate 6). Perfection slaved all of the lower arts to the absolute of the whole and removed any possibility for individuality or of real development. This meant that perfection proved to be a snare that could not be kept up for long: "the demand for absolute perfection became rather a demand for absolute plausibility, which speedily dragged the architectural arts into mere Academicism" (7). The Greeks standardized their spaces and reached heights of impressive technical perfection but it allowed little room for development.

Plate 6   Reconstruction, Great Altar of Pergamon, 2nd Century BC

The Late Classical Period and Vitruvius

The late classical period and the Romans brought a practical shift in thinking concerning architecture and the arts. Where the Greek philosophers concerned themselves with the metaphysical nature of beauty and artistic success, the Romans favored theory. In other words, to the Romans the nature of architectural beauty was self-explanatory, and in their ever practical approach they instead set out guidelines and procedures for the builder to follow in order to be successful. Additionally, their invention and extensive use of the arch changed the face and aspirations of their architecture. Vitruvius, in his efforts to lay out the scope and function of the art and profession of architecture, as well as lessons to guide architects in their endeavors, is a figure that has sent ripples through architectural practice for centuries. He must be discussed as part of any effort to understand the Roman way of thinking about architecture.

Vitruvius' writings concerned the how and where to build shifting from very broad ideas to very specific. He defined success in architecture as being dependent upon a set of fundamental principles. order, arrangement, eurythmy, symmetry, pro-

priety, and economy.

1. Order means that a whole work, as composed of individual members, corresponds to itself in balanced agreement.

2. Arrangement involves putting things in their proper and appropriate places. It is primarily through the realm of plan, section, and elevation that this is determined.

3. Eurythmy refers to the rhythm of parts and in the suitability of their measures in corresponding to one another and their task.

4. Symmetry refers to the arrangement of parts and the relation of these parts to one another and to the whole. "Thus in the human body there is a kind of symmetrical harmony between forearm, foot, palm, finger and the other small parts; and so it is with perfect buildings."(8) Symmetry, therefore, can be understood in terms of balance and harmony.

5. Propriety is the style and construction of a work of architecture based on its usage and nature. It concerns an idea of what is appropriate in architecture in terms of the usage of elements and spaces as well as the natural environment. In Vitruvius' terms, if a building has a magnificent entry hall but a low mean entrance or if the details mismatch their use, for instance, by using delicate Corinthian columns in a temple honoring Mars, it is not appropriate because they are not in harmony. Further, the movement of the sun makes it appropriate to have picture galleries facing the north to gain consistent gentle light or for bedrooms and libraries to use eastern light, so what is appropriate can be viewed in terms of the given environment. This idea of what is appropriate influenced later thinkers greatly.

6. Economy is fairly self-explanatory; however, it is divided into two parts. The first is that an architect must take care to balance costs and to not make unreasonable demands for materials that cannot be found without great expense. The second is that an architect must design for all people and must observe the proper economy when designing for all classes.

This idea of a multiplicity in what constitutes architectural success and architectural beauty has been extremely influential, particularly to Renaissance thinkers. It is a huge advancement from the overly abstract explorations of Plato which removed themselves so much from the physical world as to limit their practical use.

Vitruvius divided architecture into three departments: the art of building, the making of time pieces, and the construction of machinery. To the Romans the role of the architect was much broader than how we consider it today with the architect needing knowledge of subjects ranging from astronomy to art, history, medicine, and music, for the tuning of siege equipment. "The architect should be equipped with knowledge of many branches of study and varied kinds of learning, for it is by his judgement that all work done by the other arts is put to the test" (9). In order to con-

Plate 7 Apollodorus of Damascus, Pantheon, Rome, 126 CE (possibly)

vincingly call oneself an architect one must have ascended through the study of many arts and sciences that affect and are affected by architecture. Further an architect must have mastery over both practical and theoretical skills. A purely practical architect will never reach a position of authority to back up their plans, while a purely theoretical architect fails by "hunting the shadow and not the substance." What should be understood from this is that, to Vitruvius, architecture was a science formed of the synthesis of other arts and sciences that requires a very particular mind to grasp and use these varied bases of knowledge. Without this broad mastery the architecture will fail to be successful or authoritative.

As the Romans mastered nature, their architecture began to concern itself with interior space breaking from the Greek reliance on the land. They never fully freed themselves from Greek architecture though and made use of elements and language that were entirely unnecessary, for instance, with false lintels and columnar orders for their temples. In the words of Morris, they were not able to resist the conquered Greeks. Consider the front of the Pantheon (plate 7). It presents tension between the simplistic engineering of the columnar portico and the unrivaled engineering marvel of the dome. They knew how to build better than just columns and lintels but they added it anyway out of some vague superstition that this is what a temple should look like. With phenomenon like this in mind the Romans could be considered to be the first post-modernists, the first for whom it became a habit to shamelessly ape the past for its own sake.

Plate 8 Amphitheatre, Arles, France, 90CE

Plate 9 House Number 22, Herculaneum, 1st century CE

Plate 10 Diocletian's Palace outer wall, Split, Croatia, 4th century CE

Plate 11 Trajan's Market, Rome, 110 CE

The deeper why of Roman architecture is a tough question to answer. One aspect and way of reading the differences in Greek and Roman architecture is through the character of the land itself. Adrian Stokes described Greece as a land of earthquakes where the possibility of the earth itself fracturing was very present in the minds of its people. Poseidon, the Earthshaker, was venerated across Greece and into Sicily because of his connection to earthquakes but his worship never passed into Italy. The Aegean itself was fractured into existence and, perhaps as a subconscious affect of this, Greek architecture had to affect steadiness (10).

Perhaps another explanation for the Roman style was the scope of the empire itself. The wealthy of Rome could import whatever material they liked. African marble was imported in large quantities after 50 B.C for instance. This meant that Romans could choose material based on whim. They had no particular love of stone but chose marble because it was magnificent and lent itself to scenic effects (11). When there are no real limitations and no reason beyond taste for picking a certain material, then where do you look for your stylistic cues? In Greece the temple orders and use of marble had been able to develop organically over time. Once the Romans determined a love for the pattern of marble it could perhaps be considered a logical step that they would ape those who had used marble by necessity for centuries before.

Christian Europe and the Gothic Age

With the fall of Rome and the rise of Christian Europe and the Middle Ages a major upheaval occurs in the western world. The old structures of Europe collapsed and with it the character changed dramatically with a new people, a new faith, and altogether different worldviews coming to dominate the continent. Considering this upheaval, it is unsurprising that the early Christian thinkers weren't much interested in the arts or architecture. When it was considered it was with a certain distrust in the early period as interest in the arts is preceded by an interest in the earthly which could distract from a preoccupation with salvation and the next life. For instance, in the third century church leaders wished to renounce all secular learning (12) with Tertullian further stating that, "We despise the teaching of secular literature as being foolishness in God's eyes" (13). Many early church thinkers echoed the sentiment of Plato in their distrust of the arts as foolishness distracting from the divine. Further, in emerging from the classical artistic work to depict gods and deified emperors, there was a fear that visual arts would promote idolatry when introduced to the church. Saint Gregory the Great began to put this to rest in the sixth century when he defended pictures as being necessary to educate the mostly illiterate masses and to aid in leading their minds to God. The Second Council at Nicaea in 787 concerned the

Plate 12

veneration of symbols in the church and reversed a previous ban on the worship of icons. Constantine VI declared that, "The honor which is paid to the image passes on to that which the image represents, and he who shows reverence to the image shows reverence to the subject represented in it"(14). Christian thought over time shifted to be more accepting of the arts as sensuous aids in guiding the mind and spirit to God and this interest manifested in the sculptural, artistic, and architectural achievements of the Gothic age(15).

There are few prominent thinkers in the Gothic age which suggests something very interesting about the era. The classical world had crumbled and in these social and political upheavals, the literature and philosophy of the classical era lost its hold on popular consciousness in western Europe for centuries. For architecture this had the effect of freeing the practice from the metaphysics and superstition of Greece in a way that Rome never managed. The architecture of the Gothic did not spring from nothing but was rather informed by the remains left by Rome. Without the academic interference of such philosophy, architecture, along with the rest of the arts, could concern itself with development on its own terms.

Morris marks the birth of the Gothic era in the Hagia Sophia built in Con-

Plate 13
Sadly much of the artwork adorning the walls and domes has been covered over

Plate 14

Plate 15   Ely Cathedral, Cambridgeshire, England,
1083-1400 CE

stantinople in 540 (plate 12-14). In this we find an expression of true freedom. It could perhaps be thought of as true Roman architecture that was no longer trying to look like classical Greek architecture. "Its characteristics are simplicity of structure and outline of mass; amazing delicacy of ornament combined with abhorrence of vagueness: it is bright and clear in colour, pure in line, hating barrenness as much as vagueness; redundant, but not florid"(16). In St. Sophia we see a sudden end of old superstition and the emergence of a free idea that spread and mingled with cultures to the east and west taking on its own regional characteristics in the process.

With this organic nature, the Gothic era was free to operate under its own very loose rules and the arts became extremely localized. Cathedrals were a city or town's communal effort and in each they had their own mark. A large proportion of the me-

Plate 16-17 Antoine Helbert, Reconstruction of Byzantine architecture
4th to 14th century

dieval population was involved with the arts: as such a city's cathedral became its emblem and symbol representing the local population. This lent itself to fierce inter city competition which drove the development of great engineering advances. More than this, we have architecture that was no longer the product of a few 'great men' and assembled by slaves as had marked the past. Instead it was the production of free men and at its best the Gothic wants to see every surface marked by the human hand(17). We find in the Gothic era a broad and energetic drive to reflect on earth the city of god.

The Renaissance

There are a variety of ways to mark the emergence of the Renaissance. It represents a renewal of classical interest as evidenced by the sudden recurrence of such elements as the Corinthian column. It also represents a renewal of interest in scientific discovery, specifically the science of perspective (plate 18) and of mathematical proportions (plate 19-20). We can even frame it in terms of economics, as Morris does, with the rise of commerce. More of the population had to be involved in production and thus could not be a part of the arts, as they had been during the Gothic era, which necessitated a different view of the arts and architecture. Adrian Stokes more broadly calls it "a gigantic yet concentrated reassertion of Mediterranean values" (18).

Alberti defined beauty " to be a Harmony of all the Parts, in whatsoever Subject it appears, fitted together with such Proportion and Connection, that nothing could be added, diminished or altered, but for the Worse"(19). There is an immediate problem in trying to determine what he means by 'worse' but in some way we find the beginnings of a drive for perfection. This perhaps raises a conceptual problem where planning and the process of building are separated; where we have a rigid perfection of design that is subsequently muddied by the construction process. In the medieval era major architectural works could take as much as a century to complete, and often-

Plate 18   Possibly Brunelleschi, Cathedral of Florence floor under the dome, 1436,
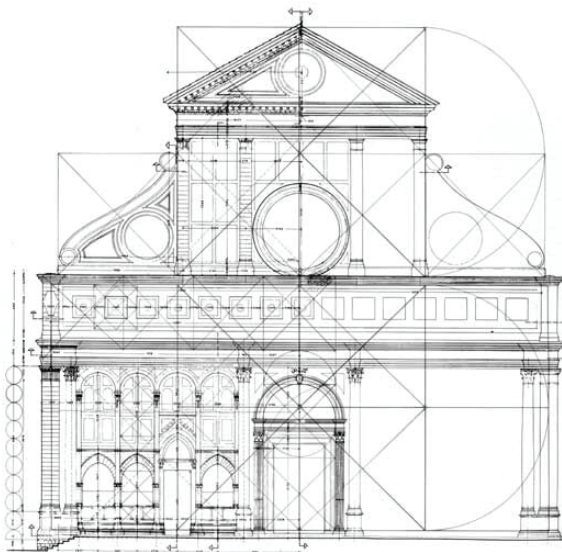

Plate 19-20   Alberti, Santa Maria Novella, facade and geometric proportions, 1470

times the Renaissance wasn't much better. This means that from a practical perspective they could not set designs in stone which lead to a flowing and uncodified process. In many cathedrals you can see this physically with a layering of structural techniques, and detail types. With the start of the Renaissance we find a hitherto unseen effort to codify building types and techniques. In book V of his treatsie Alberti laid out a set of rules for all manner of building and room types.

Perhaps we could frame the Renaissance as a drive for permanence. In the words of Wolffin "Renaissance art is the art of calm and beauty...Everything breaths satisfaction, and we are surely not mistaken in seeing in this heavenly calm and content the highest expression of the artistic spirit of that age"(20). This was to be obtained through proportion and an underlying unity binding together the proportions of whole and part. Recall Aristotle's words "a beautiful thing...must have not only an orderly arrangement of these parts but a size which is not accidental". The last two words are of the utmost importance to the Renaissance, as it implies that all aspects must be bound to singular purpose. Alberti was after a universal harmony, an idea that the beauty of nature comes from the agreement of part to whole. In pursuing this the renaissance architects utilized consistent proportions to bring a purity of experience.

With the birth of modern commercialism and a changing economic situation, workmen were needed for material production. Art that had before been the province of many became the domain, comparatively, of the few. While this was necessary for growth and development, we should also view the Renaissance in its proper context as a critical turning point in the relationship between the common man and art.

The Baroque

When we are talking about the Baroque period, as much as anything we are talking about the enlightenment. Wolfflin places the start of this period at 1580 and the end in the mid eighteenth century with the style's emergence and center of greatest energy in Rome. Where the Renaissance had been concerned with theoretical rules distilled from the worship of antiquity, the Baroque did not concern itself with such rules. It represents a release, a point where society reached a state of self confidence in the idea that they could challenge and exceed the works of the Greeks and Romans. This confidence and this sense of infallibility manifested in a mode of operation without rules and a celebration of the unusual, hence the connection that the name baroque has with the absurd and the over the top.

Rediscovery of Sextus Empiricus and skeptic philospohy was a primary cata-

Plate 21   Guarino Guarini, Palazzo Carignano, Turin, 1679

lyst for the period. Skeptic philosophy involves itself in questioning the limitations of knowledge and belief as well as position of perpetual doubt. Empiricus explored the human differences in perception and how differing senses, positions, and ideas will change one's experience of the world. Arriving at truth then is a difficult proposition and this removes any possibility for the kind of universalist approach such as the Renaissance thinkers employed.

The Baroque was marked by an idea of continuous exploration of human experience and an interest in nature. This finds its manifestation in the drive for overwhelming sensory effects. It aimed at elusiveness to not give itself away but to draw the user in. In answer Empiricus's writings the compositions were conceived for a body in movement with amorphous forms and indefinite distinctions of mass.

Wolfflin in his celebrated account of ther period described the Baroque as painterly. That is it strove for picturesque effects by breaking into spheres that were not typically architectural. In order to affect a painterly aspect the Baroque had to be evocative of movement and it needed massiveness.

Movement they achieved both literally as we can see in plate 21 and 22 and through plays of light and shade (plate 23). They eliminated definite contours through this massing of light and shadow. The flat surface and straight line are unpainterly and avoided(21).

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Plate 22   Francesco Borromini, San Carlo alle Quattro
Fontane, Rome, 1646

A second aspect of the painterly style was massiveness. Architectural elements were no longer regarded as pieces but as singular shaped masses(22).

In the background of this period we also have Descartes and the rise of Cartesian Rationalism. With this we have an interest in nature that is the external world that we are confronted with. Nature and reason were thought to be inextricably linked and it was thought that the objective external world could be understood through logic. At the same time we have a further current of interest in Empiricism and with that an interest in the human imagination and its role in our experiences. Our developments in art should be seen in terms of these dual strains of thought that knowledge is to be found externally and in the psychological aspects of how we then process and use those experiences.

Plate 23 Francesco Borromini, San Carlo alle Quattro Fontane, Dome, Rome, 1646

While Wölfflin placed the end of this era in the mid 1800s, we can perhaps look to Gaudi's markedly naturalistic work (plate 24-25) and see a last gasp of its concepts in architecture. Or perhaps more accurately we can see a purer expression of these concepts. The Baroque for most of its existence was classical in its language only with the rules joyfully frayed.

Plate 24   Antoni Gaudí, Colònia Güell crypt, designed 1898 (unfinished)

Plate 25   Antoni Gaudí, Casa Batlló, Barcelona, 1906

Plate 26 Le Corbusier, City of Towers, 1920

Early Modernism

To understand the early modernists and their revolution at the turn of the 20th century the first thing to note is the context of their work. It is difficult to overstate the bleak industrial context from which modernism emerged. Countless workers were resigned to die premature deaths for want of air and light in the newly overcrowded cities. The predominantly neoclassical architectural doctrines of the immediate past had been unable to address the problems of human life that had grown and festered. The early modernists set out to address this with a vision of making life better and an egalitarian dream of creating an architecture that could answer their problems of life. In this way, early modernism was as much as anything a reactionary movement.

"The art of our period is performing its proper functions when it addresses itself to the chosen few. Art is not a popular thing, still less an expensive toy for rich people. Art is not an essential pabulum except for the chosen few who have need of meditation in order that they may lead. Art is in its essence arrogant" (23). This statement from Corbusier reveals something in the mentality of his particular brand of early modernism. What need does a worker have to meditate? None because the mind and imagination are not important for any but the leadership. This suggestion

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Plate 27 Mie van der Rohe, Glass Skyscraper,
1922

frames modernism as extremely hierarchical, not egalitarian as typically character-
ized. In the words of Corbusier, "We must create the mass-production spirit. The
spirit of constructing mass-production houses. The spirit of living in mass-production
houses. The spirit of conceiving mass-production houses" (24). A mass production
spirit is, in other words, a lifestyle based around efficiency and economy. Decoration,
clutter, meditation, the trappings of life lived well, these are not things that a worker
needs. No, what a worker needs is to be healthy, efficient, content, and very aware that
there is an order to how he is to live. For all of Corbusier's words concerning harmony,
order, beauty, etc. there is no thought spared to choice, to freedom, or to self expres-
sion. "Teach your children that a house is only habitable when it is full of light and
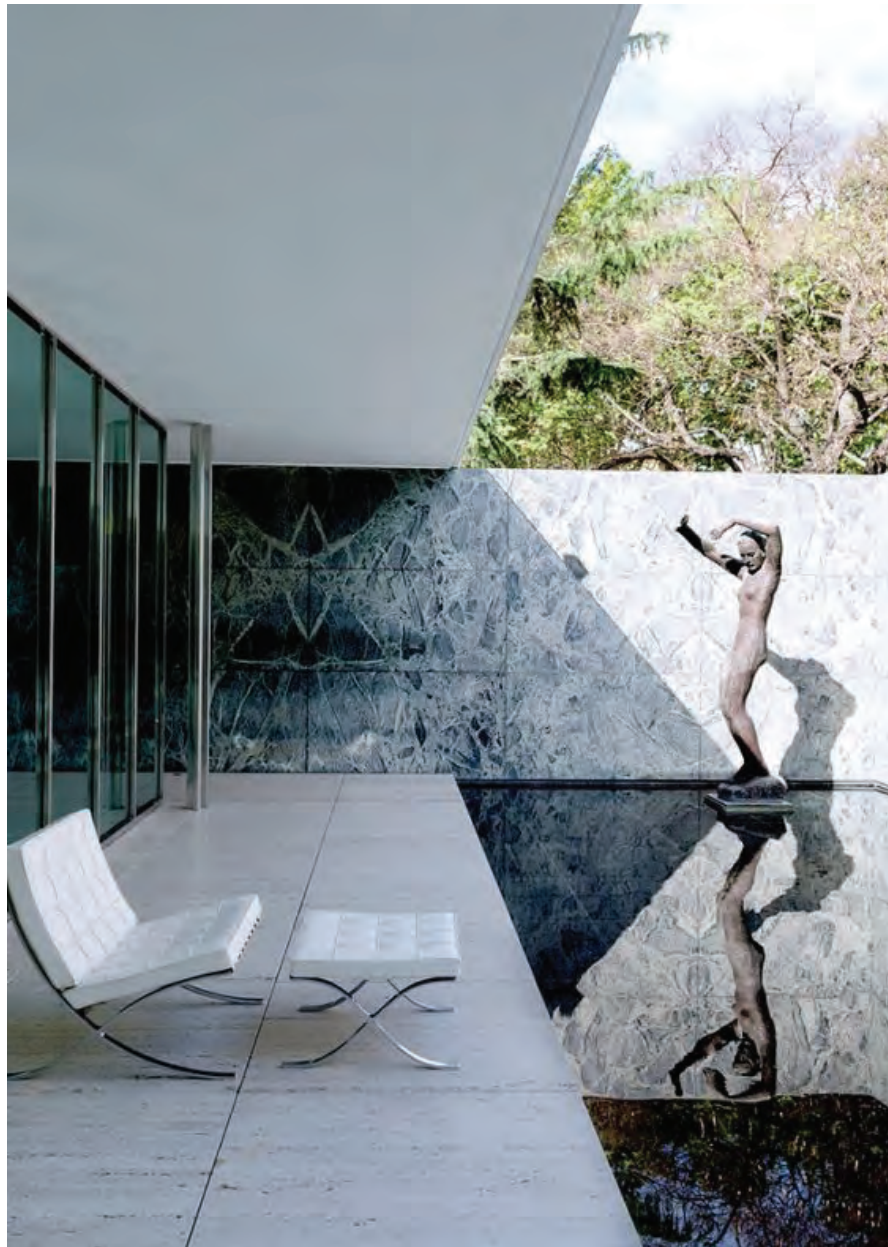air, and when the floors and walls are clear,"(25) how very boring a way to live. There

Plate 28   Mie van der Rohe, Glass Skyscraper, 1922

is a presumption of servility concerning the working class and a further presumption of inherent superiority, that these workers have their station in life and they will live in accordance with it and with the machines that they work for a living. Whether this is deliberate or not there is a definite angle of suppression, of locking away the spirit within clean walls and reducing human existence to the essential in industrial terms.

Perhaps in this context, architecture should be framed in terms of its traditional role as a servant to those in power. Architecture requires money, material, and land to produce, which puts the architect at the mercy of the established powers who will

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then dictate the role of the architect. For most of history architecture has been a bourgeois profession, an arm of the elite, and in this role, strictures and a general definition of the scope of architecture formed. Architecture became about the study of building methods and universities taught an ambiguous coupling of art and technology. In the words of Giancarlo Dicarlo, "Forced into an inorganic coexistence, both academic art and applied technology retarded the scientific transformation of the architectural discipline and interrupted its contacts with social transformations" (26). In contrast to the architect's role that we find in the Roman, Gothic, and Renaissance worlds, architecture in this modern age had become far more of an elitist and academic pursuit. Perhaps with this we can better understand the attitudes of the modernists and persist in an admiration for their efforts. The problem lies in how they approached problems from a position among the elite. When the modernists set out to answer the housing needs of mass society that had been made necessary by the drive of capital, they did so by aiming to minimize both cost and human behavior without any real questioning. The architect was to operate as a facilitator to existing power structures, softening the situations that others had made and playing at a role of determining how the poor could best live in service to capital. Architects allied with commerce and academia and they never quite joined or identified with the people forced to use their architecture. This means that the problems they addressed were relatively minuscule or otherwise created new ones. "Dealing with the problems of 'how', the problems of 'why' are forgotten" (27).

The same drive for permanence that marked the renaissance is easily and clearly spotted in the work of the first modernists (plate 26-28). The same efforts at timeless purity and codified proportions exist still such that we can call the heroic period a continuation as much as anything. The troubling tendencies that underlay the renaissance are here deepened and expanded with the architecture conceived in the spirit of a cleansed society (28). However well meaning the movement it was crippled by a tendency to view the messiness of real life with a degree of disdain and that is when life was considered at all.

Late Modernism

Late modernism departs from the birth of modernism and into a new age of growth. Certainly the 1950s, '60s, and '70s include many lovely works: early Brutalism, before it started taking its name too seriously and became brutal, Louis Kahn, the Smithsons, and numerous other works of surpassing beauty. More than this there remains a spark still lingering at the center of the profession, a principled drive and purpose in trying to make life better.

This is in large part due to these years being marked by a revolt against the aforementioned elitist attitude of the early modern period. With ILAUD (International Laboratory of Architecture and Urban Design) and Team X we see a concerted effort to expand on the ideas of modernism; to take it away from dogmatic purity and closer to truly egalitarian ideals.

José Coderch wrote an article, 'It Is Not Geniuses that We Need Now' in Domus, November 1961.

"It is necessary that the thousands upon thousands of architects around the world think less about Architecture with a capital A, or money, or the cities of the year 2000, and more about the job of being an architect. Let them work with a rope tied to one leg, to stop them from staying too far from the earth where they have their roots, and the people they know best, and let them stand on a solid base of dedication, goodwill and integrity."

We can see in this period an effort to bring architecture back down to earth.

Post-Modernism

With post-modrnism this spark seems to have trailed off, or otherwise gone out, somewhere in the 1980s. Michael Speaks in his article "Intelligence After Theory'" marks several shifts in thought over the past decades.

One is a shift from philosophy to theory that occurred gradually in the 70s and 80s. Theory is fast philosophy, as Speaks puts it, it is a tool that can be deployed quickly and easily without all the cumbersome study and knowledge that philosophy requires. In essence it was a shift in the scope of problems to be addressed. Where the older philosophers concerned themselves with larger societal issues, the theorists took these larger constraints as given and settled for smaller critical approaches

Towards the end of the 90s there was another shift from theory to a "post-critical" approach. This is marked by an attitude of problem solving, that is to say, to simply accept client given parameters and to work towards a solution. It is further 'innovation' based, to find new ways of solving established problems. "intelligence-based practices are instead entrepreneurial in seeking opportunities for innovation that cannot be predicted by any idea, theory, or concept"(29).

What we have here at the end is a shift to turn architecture into a species of quick problem solving while maintaining a position of apathy in considering what these problems actually are. Recognizing this shift helps understanding of the overtly formalistic bent to the thoughts of current architects. This is an aspect of commercial-

Plate 29 Ricardo Bofill, 77 west wacker drive, Chicago, 1992

Plate 30 Ricardo Bofill, Les Espaces d'Abraxas, Marné-la Vallée, France, 1982

Plate 31 Steve Hermann: The Glass Pavilion, Santa Barbara, California, 2010

Plate 32 Rem Koolhaas: Villa dall'Ava, Paris, 1991

ism, or globalism, in that architecture first and foremost is now producing products to sell to a rootless elite. Rather than a quest for lasting relevance there is a drive for immediate impact which, in turn, necessitates exaggerated sculptural form. The cease- less demands of capital with regards to speed means that architects cannot really pro- duce anything with significant thought anymore. To make matters worse, these shal- low qualities seem to have become a virtue. It is in these circumstances, for instance, that architects derive architectural forms from fragments of the past. Consider Ricar- do Bofill's neoclassical works (plate 29-30) that use pieces of older forms as symbols with little further conviction. Show these to a layperson and often their immediate response will be that these forms are 'authoritative'. This idea is the key to under- standing these efforts and why. If it isn't classical forms, it is not uncommon to find strange renditions of the Villa Savoy (plate 32) or some other artifact of early mod- ernism (plate 31). It is because age has given these objects authority which we seem to have commoditized.

Our current state can be viewed as the terminal symptoms of estrangement from real social and environmental concerns that the elite and academic position of the profession has brought on. The profession is floating and this has created an envi- ronment that favors the self-conscious pursuit of emblems and novel forms as well as poor copies of older authoritative works. There is an endless dual state of a few architects striving for originality for its own sake and many more striving for the opposite which is why so much of architecture that was once novel has become gener- ic. It doesn't particularly matter which direction we turn, all we get is an architecture reduced to a status of inert sterility.

Even if we accept that there is a problem with current practice we have still to properly define it. This demands a continuing exploration of the craft and the more specific underlying ideas to its creation. History gives some basis for understanding but now practical theory must be considered to determine what is important, the 'Idea' as Hegel puts it. What is it that makes architecture consequential?

3
What Defines Architecture?

Before all else, we should start by working to determine what architecture is and the absolutes that define it at its core in order to have basis for further conversation and theory. The practice of architecture has become a confused mass of conflicting dogmas, the numerous -isms that do little more than muddy the waters and interfere with understanding. To begin with, we must cut through to the striking factors at the heart of architecture that set it apart from the rest of the arts:

(1) Architecture has a function. It is brought to pass both by and for human activity and no piece of architecture was ever created without a purpose.

(2) Architecture defies a reductionist understanding as it influences and is influenced by its physical, psychological, and intellectual landscape across time.

(3) Architecture demands participation and is shaped in every moment by the actions and thoughts of its users.

For the first point, architecture arises from a purpose, rather than the whimsical desire to make an aesthetic object. It is this purpose that forms the center of our judgement of architecture. Architecture is made for the human purposes of habitation, working, and life, which creates a framework that architecture must operate within to fulfill its purpose (30). The success of a piece of architecture can only be judged in terms of its function. The meaning of function must be understood beyond the technical sphere. It would be extremely crude to simply regard architecture as a machine, something that is merely the sum of its uses and its sole purpose is to meet them. Alvar Aalto once commented, "Technical functionalism is right only if it is extended to the psychophysical field, too. It is the only way to humanize architecture" (31). In this way function can be understood far beyond mere utility. It must be a key aspect of functionalist thought that it serves the mind: the psychological, emotional, and experiential aspects of human use. Architecture is an inherently functional pursuit; however, that function must be understood in broad human terms and in order to meet it, the technical and the imaginative, the mechanical and the biological, cannot be divided. The art of architecture lies in synthesizing together the needs of the practical and the mind and, in the words of Alvar Aalto, "…in forging a harmony between the vast, and often contradictory, field of its aims"(32).

Architecture cannot be viewed in a reductive sense owing to an inherent multiplicity of architectural aims. A piece of architecture is not a self-contained object, as a piece of artwork in a museum. It exists in relation to numerous contexts.

One cannot simply think of architecture without taking into account the very wide environment within which it exists. Where a work of art can change in its temporal or physical context and keep its original meaning and content, architecture is not a static entity in this respect: changes to context will change the meaning of the architecture. Architectural practice has become too specialized and isolated from the various fields that it touches and which ultimately constitute it. Architecture is a field composed of many fragments: technical engineering, landscape, history, aesthetics, town planning, and psychology to name its primary fields. Further, architecture can absorb any number of fields of study as any ideas and knowledge can be folded into architectural thought and prove useful. Architecture covers all fields of human activity and it must be developed and understood within all these fields simultaneously. If architecture fails to do this it will be reduced to a hollow, superficial shell. To focus on formalism, as many seem to do currently, leads the architect to design around the arbitrary factor of how an object should look or an effort to represent something. The architecture becomes a reflection solely of the ego of the architect, a piece of sculpture, and loses its ability to be truly consequential or effective as it removes itself from the life it serves.

Architecture does not exist in isolation from people. By its nature, out in the world and in the open, it demands participation, willing or no, from the people that meet it. This can take the form of interpretation as people draw their own connections between objects or in the creative use of a space in as simple an act as rearranging furniture. These interactions can and will be unpredictable to the architect owing to the fact that it is impossible to guess at every possible present or future use of a space much less control it. Any piece of architecture cannot then be framed as a static entity. It's identity comes from the people that interact with it and hence it will be in a permanent state of flux. To go one step further, architecture is not in the physical entity but is instead found in its interaction with the human mind and body. Mies van der Rohe once said that architecture begins when two bricks are carefully put together. He was figuratively correct: architecture is neither lines on paper nor is it an image, it is real. However, his statement could be modified to say that architecture begins with the affect that those two carefully placed bricks have on the human.

The works of man pervade our world and dominate our surroundings. When this effort is dedicated to art and beauty it uplifts the life of man, "soothing the sadness of our condition and the embarrassments of real life" in the words of Hegel. It is a key aspect in giving value to life.

4
What is the Value of Making?

Imagine a world without art. Hegel examined such an idealized account of the world and above all its effect on the human mind(33). The state of a man's mind conforms to the state of the world. In this world, man is bound by the immediate, he may perceive objects and he may formulate desires for them which he fulfills by consuming. The world becomes a purely sensuous entity along with man himself who becomes a sensuous creature. Existence is then marked by a series of sensory perceptions, physical desires, and the urge to satisfy them, it is an endless parade of short term 'wants'. Lets say that a man in this state draws a sketch in the dirt. In this moment of creation he has liberated himself from his purely sensuous and immediate existence and opened the gates to conceptual thinking and to the contemplation of the world and his place in it, free from desire. In gaining "self-conscious inward intelligence"(34), the human may view objects free from his sense of wants or instinctive reaction and to consider them in their own nature. It is in this state that man may come to the concept of the beautiful. This new conceptual man may take pleasure in the sketch in the dirt solely through itself and not in relation to his desires for it. He has begun to concretize his knowledge of the world and his place in it and with this he can reach a true sense of self. Art then is a key factor in humanity's quest to record and understand ourselves and to give sensuous understanding to the otherwise unfathomable depths of the mind and life.

Plate 33   Marc-Antoine Laugier, Primitive Hut, 1755

Consider this poem to further examine the question.

When the flush of a newborn sun fell first on Eden's green and gold,
Our father Adam sat under the Tree and scratched with a stick in the mold;
And the first rude sketch that the world had seen was joy to his mighty heart,
Till the Devil whispered behind the leaves: "It's pretty, but is it Art?"

Wherefore he called to his wife and fled to fashion his work anew—
The first of his race who cared a fig for the first, most dread review;
And he left his lore to the use of his sons—and that was a glorious gain
When the Devil chuckled: "Is it Art?" in the ear of the branded Cain.

They builded a tower to shiver the sky and wrench the stars apart,
Till the Devil grunted behind the bricks: "It's striking, but is it Art?"
The stone was dropped by the quarry-side, and the idle derrick swung,
While each man talked of the aims of art, and each in an alien tongue.

They fought and they talked in the north and the south, they talked and they fought in the west,
Till the waters rose on the jabbering land, and the poor Red Clay had rest—
Had rest till the dank blank-canvas dawn when the dove was preened to start,
And the Devil bubbled below the keel: "It's human, but is it Art?"

The tale is old as the Eden Tree—as new as the new-cut tooth—
For each man knows ere his lip-thatch grows he is master of Art and Truth;
And each man hears as the twilight nears, to the beat of his dying heart,
The Devil drum on the darkened pane: "You did it, but was it Art?"

We have learned to whittle the Eden Tree to the shape of a surplice-peg,
We have learned to bottle our parents twain in the yolk of an addled egg,
We know that the tail must wag the dog, as the horse is drawn by the cart;
But the Devil whoops, as he whooped of old: "It's clever, but is it Art?"

When the flicker of London's sun falls faint on the club-room's green and gold, The sons of
Adam sit them down and scratch with their pens in the mold—
They scratch with their pens in the mold of their graves, and the ink and the anguish start
When the Devil mutters behind the leaves: "It's pretty, but is it art?"

Now, if we could win to the Eden Tree where the four great rivers flow,
And the wreath of Eve is red on the turf as she left it long ago,
And if we could come when the sentry slept, and softly scurry through,
By the favor of God we might know as much—as our father Adam knew.

-Rudyard Kipling, The Conundrum of the Workshops

The Devil is both asking a very pertinent question "It's pretty, but is it Art?" and entirely missing or misrepresenting the point of art. To talk about art is not to talk about any ephemeral idea of 'prettiness', that is not the true concern of art nor is it a source of real value. If anything should be understood from the scenario of a world without art, it is that art derives its value from its communicative role and the subsequent affect that this has on the mind. Art's purpose is to bring us to the truth of the mind and to make us aware of our own nature, of who we truly are. In the arts, and architecture, man records his feelings. They are born of the mind and heart and in this they gain the permanence of art.

Consider for example the idea of a group of people building a wall. Perhaps there is an architect among their number giving direction or perhaps not. This wall could be simple or it could be complex; it could be a part of a larger construction or it could be on its own; it does not matter. These people will have certain materials available to them, they will have a need for the wall to fulfill, and they will be in a certain environment. They will choose their material based on what they consider appropriate and begin to piece it together according to their knowledge. Perhaps in places the builders will decide to lay their material in a different pattern or to carve certain important areas in celebration of their labor and why not, they are free. In their freedom and involvement they may indulge in the spirit of invention and self expression. The wall then begins to become more than just an object in space. It starts to communicate to others the conscious and unconscious aspects of the minds of the builders. That is not the end of the story though because the wall then exists out in the world. The sun will rise and fall over it in a certain way, rain will run down its surface, the seasons will change, and the wall will have life breathed into it by its environment. It will take on the aspect of time and show the unseen workings of the place on its surface and the pores of its materials. Even that is not the end since we have not mentioned the people that use and pass this wall. They may look at it and that process of looking will tell them something but not everything about the object. Some may find themselves compelled to reach out and touch the wall, to use more of their senses to tease out its otherwise imperceptible characteristics, and to reach a more complete understanding of it. In this process of touching, an object changes and gains new character from the exchange and so it reveals the life that has turned around it. The wall ceases to be just an object and starts to reveal. Even as the most basic constructed element it gains the power to bring together years of otherwise imperceptible characteristics of the mind, spirit, and place and to make these understandable across the ages. And it is not just for others that the deeper aspect of the spirit is revealed in the act of creation but for those doing it, creation is a key to forming an understanding of ourselves and of drawing out our unconscious

nature so that we may contemplate and communicate it. This is the power of architecture and it is the root for the artistry of the craft.

What then can we say about modernity? Consider the following examples drawn from the Wikipedia page on contemporary architecture (plate 34 - 37) and of them I would ask the devil's question "It's pretty but is it art?". What exactly is it that they give us that has any lasting value? In order to convincingly answer this, we must turn towards a more fundamental question of how we experience architecture. Until this is discussed there is insufficient basis for fully addressing content and value.

Plate 34   Tadao Ando, Modern Art Museum of Fort Worth,

Plate 35   Shigeru Ban, Centre Pompidou-Metz, 2010

Plate 36   Daniel Libeskind, Royal Ontario Museum, 2007

Plate 37   Santiago Calatrava, Quadracci Pavilion, 2001

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5
The Experience of Architecture

In looking at the experience of architecture we are interested in both the nature of experience, in how we grasp and form an understanding of architecture, and in the effect that this has, the nature of pleasure derived from the experience. This should be a fairly intuitive subject. However, in this day and age the idea that we understand our spaces with our whole body and with all our senses goes ignored. This idea and philosophy of sensory perception is only the first step. The next is the nature of pleasure in apprehending architecture, which has far more to do with the architectural object.

Sensory Understanding

It is an unfortunate indication of the state of architecture that basic sensory perception must be addressed first. Pallasma has written on the issue in terms of the modern preference for the visual to the detriment of all else. A significant architectural experience is multi sensory. Humans reach an understanding of their environments through the simultaneous exercise of the eye, ear, nose, and skin. To understand a significant sensory experience imagine the process of understanding a cathedral. When we step into a cathedral we tend to apprehend the whole space through vision. As we step into the space the sound of our footsteps will echo off its geometries and the sounds will further behave in different ways depending on the materials. Our understanding of the architecture will then deepen as we wander. As we step close to a pillar or wall we might perceive small imperfections on its surface or at least a grain to the material but our eyes are insufficient to the task of understanding those structures. In this case we might feel compelled to reach out and touch the surface to use our skin to tease out its otherwise imperceptible details. If we were willing we might further use our tongue to get a sense for the taste and texture of these surfaces, as one can often view infants doing for just that reason of understanding. Architecture in its capacity as space and as material is unique among the arts in its demand that all the senses be deployed in understanding it. In this capacity it creates experiences that heighten our awareness of ourselves and our bodies.

A reductive tendency with regard to the senses will leave architecture poorer. This very tendency stretches back to the foundation of modernism with Corbusier

Plate 38-39　Le Corbusier, Maisons Jaoul, Paris, France, 1956

stating, "Our eyes are constructed to see forms in light" (35). To Corbusier the architectural experience was a visual one, a matter of apprehending primary forms as they are revealed by light and shade. Admittedly this is representative of his thoughts in his early career but where he matured out of these notions (plate 38-39), the rest of the profession stuck to them (plate 40) and the question of experience turned from one of matter to one of plastic form. To rephrase the problem of current architecture, it is less about the primacy of the visual and more the lack of details that require anything other than vision to understand.

Plate 40   Aldo Rossi, San Cataldo Cemetery Modena, Italy, 1971

We should take note of two further aspects concerning sensory perception.

First, our senses are not necessarily isolated from one another. Vision has a connection to the others through anticipation and imagination (36). Consider, for example, ribbed concrete similar to the cladding on most of the Georgia Institute of Technology School of Architecture (plate 41). An image doesn't really do this material justice. It engenders a tingling in the tips of the fingers, a certain apprehension of the feel of this material. The material is hostile and does not want to be touched. It is something to keep in mind that there is such a thing as negative tactility and that our varied senses and imagination are not isolated from one another.

Second, art and architecture offer a certain clarity, we tend to take stock of the things that surround us only in so much as to vaguely identify them. Particularly today humans often wander in a state of distraction. The needs of life have become so imperative and overwhelming that we learn economy in our attentions. This means that the utilitarian objects in our lives become almost invisible. By virtue of being removed from necessity, art and architecture exist solely to be seen or touched which will draw us out of our distraction and into a stark and full experience of the object. Art clarifies perception and awareness by its basic utilitarian uselessness.

Plate 41

There is finally a danger in saying 'perception' without the knowledge that this is not a universal idea. We can look to the work of Donald Hoffman (37), a cognitive scientist, and say that the nature of experience is one that resides in consciousness. It is an action of the mind that takes and interprets sensory information. There is a large portion of the brain that is devoted to taking the inputs that we receive and reconstructing our picture of the world. Evolutionary pressures mean that our perceptions will not reflect objective reality as it is but rather reality warped by biological needs. Alternatively, we can draw upon Pyrrhonism or skeptic philosophy. Our circumstances and conditions can change our experiences. "For some people honey seems pleasant to the tongue but unpleasant to the eye; consequently, it is impossible to say without qualification whether it is pleasant or unpleasant" (38). Even the merest change in the nature of an experience, or the organs involved in the experience, will change the viewers thoughts on the experience and visa versa. We can say that, owing to the differences between humans, we know how an object is to us but we must suspend judgement as to how it is in nature. With this in mind one should be wary of any claim at universal validity or that one should cleave to the 'majority' view as though this is something measurable and not subject to change. When faced with an explanation of an effect, a proof for why an experience is the way it is, we will either be able to confirm the experience through our own senses and accept the explanation or not and disregard it. If we accept this proof then the next step is to examine the proof because, since we are creatures of flawed or otherwise varied perception, we cannot be sure that simply because we can observe this proof that it is true and must resort to other means to establish this truth. This means that an interpretation on its own does little to support meaning. Further, an experience can be changed not only by the sensory organs and condition of the observer but also by the mind. A slight change in knowledge can change the nature of the experience since it changes our thoughts on this experience. Consider listening to a strange foreign language or the sounds made by animals: we can be fairly certain that there is meaning there but without the requisite knowledge, or in some cases sensory organs, we will not be able to comprehend their meaning which will change how we experience them. This is a concept worth keeping in mind as it concerns the nature of judgement in architecture and determining a good bit of work from a bad one.
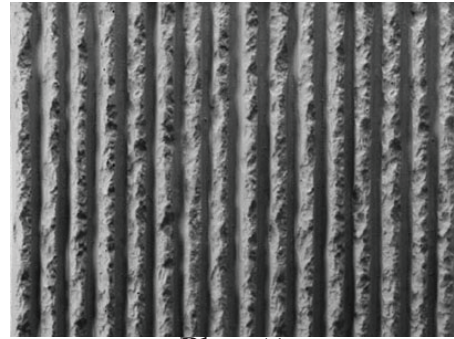
Intellectual Understanding

Experiencing architecture cannot be understood as mere passive sensing but rather an active and imaginative affair as well. The pleasure of architecture, as in any of the true arts, is not found in pure sensuous experience, that is an aspect but it is only the beginning. There is an immediate pleasure that comes from a sensory experience but there is a greater aspect to pleasure that is dependent upon processes of thought. In Hegel's philosophy for instance, the perceived beauty of nature is purely sensuous but with human made art there is an added dimension of beauty in the communication of the mind by sensuous means and this gives art a higher place. This duality of pleasure in sensory and intellectual understanding is found in all the arts. In a musical piece there is a sensuous pleasure that stems from the harmony and rhythm of note to note but there is a deeper pleasure derived from apprehending the meaning of a piece. So too in architecture is pleasure derived from the apprehension of a piece and its meanings in what it tells us about ourselves, about others, and about the world. Ruskin described this in his 'Lamp of Truth' as the sublime moment when an intelligent observer begins to understand a building.

The idea of the 'intelligent observer' points us in another direction, that the pleasure of architecture is heavily influenced by knowledge. For instance, a false facade may hold real intellectual interest to us but only for as long as we are not aware of its false nature. In the words of Roger Scruton "Our enjoyment of a facade is affected when we learn that, like the facade of the old schools in Cambridge, it is a piece of detached stage scenery"(39). A false facade may still delight from a sensuous perspective but as soon as we learn that it has no bearing on the architecture, no real meaning, then it will no longer be an object of contemplation (see plate 42 and 40). To borrow a further analogy from Scruton "the meat loses its relish when we learn it is the flesh of a favorite dog"(41). We understand a building in all of its parts through the lens of purpose. What is appropriate on a church will not necessarily be so on a house. All elements of architecture must be seen in this way as deriving their appropriate existence from this sense purpose otherwise they will simply be meaningless extraneous distractions. As rational beings our enjoyment of an object will always be colored or outright guided by our thoughts on the object. There is no such thing as pure sensuous pleasure in archiecture.

An intellectual understanding precedes the act of judgement, the critical mechanism by which we give objects value. Alberti once said:

"the Judgment which you make that a Thing is beautiful, does not proceed from mere Opinion, but from a secret Argument and Discourse implanted in the Mind

Plate 42   BKSK Architects: One Vandam, New York, 2015

itself; which plainly appears to be so from this, that no Man beholds any Thing ugly or deformed, without an immediate Hatred and Abhorrence"(42).

     We are looking at the act of apprehending an object and then deriving a certain intellectual pleasure from this act of attention (43). The nature of this pleasure is different from the sensory pleasure one gains from certain foods which is more or less passive. That variety of pleasure is not something that can be reasoned out or argued for, we merely have our preferences. It would be an absurdity to argue that someone's taste in wine is incorrect as it is founded in basic sensory pleasure. The act of aesthetic judgement and the exercise of taste in an architectural sense is a different beast. When a person makes an aesthetic judgement it is according to knowledge, in the words of Wittgenstein:

"When we make an aesthetic judgement about a thing, we do not just gape at it and say: "Oh! How marvelous!" We distinguish between a person who knows what he is talking about and a person who doesn't"(44).

If one strongly dislikes a certain piece of architecture then this dislike will be founded in both the experience of the concrete object and in the individual's knowledge and attitudes. Furthermore, when this act of judgement is based upon knowledge, as opposed to emotion, then it will be consistent as we react to other pieces. Our aesthetic tastes, like moral views, are based in reason and an alteration in knowledge can change the nature of the experience which then affects our taste(45). If we feel a

"Hatred and Abhorrence" towards an object then we will feel compelled to justify this through reason, maybe we perceive something as lopsided or deformed but perhaps we reach this experience owing to an incomplete understanding, such that with new knowledge we might see the object differently, or we might not as knowledge does not guarantee a concrete change in the experience. Our tastes in architecture may be supported, dismissed, or altered on the pure standpoint of thought, knowledge, and reason, as much as these then alter our individual experience of a work of architecture. The aesthetic judgement of an object is based in reasoned and logical processes free from individual interest. This holds for our exercise in taste that our feelings towards an object, when separated from desire, must presuppose a universal validity. That is if we bring another to the same measure of knowledge and ideas that we possess then we must assume that their experience and judgement of an object will be the same as ours. In the words of Kant, we reach a 'subjective universality' in our satisfaction of objects (46).

To Wittgenstein an appreciation of the arts, as a language, is predicated upon an understanding of the rules. These rules can be either explicit and taught or unspoken, but it is through an understanding of these rules that we come to more and more refined judgements "If a person is to admire English poetry, he must know English" (47). We deem something to be good in terms of our conceptual understanding of the object, its purpose and its place within its cultural context (48). The ability for a person to determine what is aesthetically appropriate in his individual and cultural context is the act of appreciation, or judgement, and refinement means being able to do this in smaller details. A major point about these rules is that they come from the whole cultural environment and it is with the ways of living for a culture that we can determine the significance of objects. It is also worth noting that these rules to an extent will be embodied by the artwork itself. One must know English to properly appreciate English poetry and by reading English poetry one more fully knows English.

" In certain styles inArchitecture a door is correct, and the thing is you appreciate it. But in the case of a Gothic Cathedral what we do is not at all to find it correct—it plays an entirely different role with us. The entire game is different. It is as different as to judge a human being and on the one hand to say 'He behaves well' and on the other hand 'He made a great impression on me'" (49)

With the act of appreciating higher art, we do not typically apply words to the experience because the whole experience is something beyond words to describe, we will make our satisfaction known in non verbal ways. Perhaps we will look to certain details and describe their character and significance. Ask someone to describe the experience of a cathedral and there is no meaningful way to do it. We can only

Plate 43 Town homes, Gdańsk, Poland

apply words to the smaller experiences and the words we might apply to such experiences only have meaning in context.

It means something different to say cultured taste in the context of the middle ages than now and similarly, words like good, correct, harmonious etc mean different things depending on the living cultural context. These aesthetic adjectives were meaningless on their own to Wittgenstein, merely gestures, "this is lovely" does not tell us much on its own and must be understood as a description for a way of living or new understanding. A conversation on the merit of an object based solely around such adjectives will lead nowhere. 'I like this'-'I disagree, I do not like this' is an empty and prematurely ended converstaion; in order to get to the heart of aesthetic taste our reasoning can be similar to moral judgements in that one must examine effects with the conviction that there is a right and objective answer.

Recall the all too familiar experience for a modern man, of asking someone what they think about a contemporary building and more often than not we will hear "it is interesting" or perhaps an affirmation of approval or disapproval. The fact that these conversations end with such statements is a sure sign that one is dealing with an empty object (or empty person). Higher art in its relationship to life tends to defy a simplistic linguistic description. Ask someone what they think of the

Plate 44 Venice, Italy

Plate 45 Stamford, England

Cathedral of Florence and you will not get a simplistic response and that is if you get a response at all, more likely you will get a happy expression and relaxed body, as these unspoken meanings are how we may describe the experience.

Gradual Understanding

Architecture has been described as frozen music, most notably by Johann von Goethe, Alberti, and Friedrich Schelling. If one were to listen passively to a piece of music it would be meaningless and nonsensical, a sequence of notes. It requires the action of the mind to turn this sequence into a harmonious whole (50). The same is true of architecture. The experience of architecture is not the experience of a whole. It is impossible to experience an architectural whole in one moment, but of details constituting a whole. The idea of the complete architectural whole is just that, an idea, and it can be argued that this whole does not in fact exist as an objective reality but rather is formed from the action of the individual imagination crafting a harmony from its experience of parts. Recall Aristotle's thoughts on the subject when he said that a very large object cannot be beautiful because it cannot be understood at once. Architecture can be beautiful but it is the experience of details, of 'notes' that form the experience and process of understanding the architectural whole.

The nature of what we might call details forming a whole depends on the environment we are in. As one walks through a city it is building fronts that form the notes (plate 43) and the city or neighborhood perhaps could be considered the conceptual whole. As we walk through a landscape it could be a small copse of trees or a kopje on a savanna. The determination of a detail depends on both the scale of the environment of interest and on what objects can be experienced at once by the human in that context.

We can re-conceptualize this by thinking in terms of a conversation of sorts. If we consider old architecture (plate 44 - 45), the process of moving through it, and of understanding it, we find that every carefully placed stone, every carving, color, texture that we may find tells a story of a mind, of intent, and of people expressing their innermost spirit through the work of their hands. We can look to a simple stone or brick structure and in it we may start to perceive the moods or more generally the spirit of those that built it. Meaning is conveyed in every part of the architecture and of the city and results in an environment that is loud, through part and detail, people are shouting out across time demanding to be seen, contemplated and understood. These days we find a mentality where creative production is considered to be the domain of a few 'genius' minds rather than a broad endeavor and this results in a built fabric that is very quiet. We can think of the limitations on language as being the limitations on thoughts that may be expressed (51). We need not

Plate 46   Rembrandt van Rijn: Old Man, 1630s

Plate 47   Rembrandt van Rijn: Christ Driving the Money Changers from the Temple, 1626

then think of language in simple verbal terms but also in terms of acts that express conscious and unconscious thoughts. Wittgenstein wrote "It is clear that ethics cannot be put into words. Ethics is transcendental. (Ethics and aesthetics are one and the same.)"(52). That is to say that aesthetic meaning is of a higher order than verbal sounds can express and thus must speak directly to the mind. Architecture is a somewhat indeterminate language in that it may not always convey the same meanings but a language it remains and an extension of human efforts to convey.

Beauty

It is noteworthy and deliberate that a conversation on beauty falls under a section on experience because beauty is founded in experience (53). The awareness of beauty comes from an act of attention and resulting thoughts and feelings about the object. The idea that beauty is something that is experienced could lead us to the altogether empty statements that "beauty is in the eye of the beholder" or "it's all a matter of taste." From there we could simply declare that it is an absolutely subjective line of thought and thus not worth discussing. While it is true that beauty is not something particularly quantifiable, the subject can be approached with a fair

Plate 48   Juniper tree, El Hierro, Canary Islands

bit of objectivity (if not scientifically) in the nature of the experiences that rouse enough from the human mind to be called beautiful.

     Consider Corbusier's writings in which he spoke of beauty as belonging to the primary and basic forms of the sphere, cube, pyramid, etc. "These are beautiful forms, the most beautiful forms. Everybody is agreed to that, the child, the savage and the metaphysician" (54). He goes on to state that the Gothic cathedral, owing to its lack of simple forms in favor of complex geometry, is not beautiful. However, this sentiment is vexing, not least because it still clings to our modern consciousness. The claim that a form of any variety has timeless and innate value is totally and completely without merit and indeed anyone should look askance at Corbusier's explanation that "everyone knows this." Form has no value whatsoever and any conversation on timeless beauty that revolves around abstract forms can only charitably be called shallow. One can arrive at this notion by simply asking why: Why is a cube beautiful? Why is a cylinder beautiful? Why is some arrangement of these forms beautiful? This is not to say that such things cannot be beautiful but it misses the point to address ourselves to form as the root of beauty. The arches of Rome, the pyramids of old Egypt, the geometries of the columnar Greek temple: these forms did not arise out of some distant notion that they are beautiful. The Romans did not determine that a circle is beautiful and then attempt to render a circle in stone to arrive at the arch. Rather, they came out of human hands and human minds manip-

Plate 49   Cobblestone streets of Lund, 2017

ulating the material they had available to create objects that satisfied the needs of body and spirit. The forms then are a consequence of processes rather than an end in themselves. The processes lend beauty to the object, not the form as an abstract idea. The subject is such that abstracted form or geometry is not an adequate ending point. Beauty is a complicated and slippery idea and a complete definition is likely impossible for the simple reason that it is a concept that defies explanation through either words or rationality; however, this should not stop us from trying.

Ruskin described two sources of agreeableness to an object. One is the beauty of abstract form which remains more or less the same whether it comes from a hand or a machine. The other is the sense of human labor, the record of thoughts, intents, trials and heartbreaks internal to a man-made object. The value of an object then comes from the labor that went into its making and the meanings that it then conveys. Its value to an observer comes from its ability to convey these understandings far more than its form.

A distinction can be made between sensuous beauty and the aesthetic beauty of the imagination or mind. These two can very easily act in contradiction to one another as an object that is beautiful owing to its effect on the mind and emotions does not necessarily need to possess a sensuous beauty and vice versa. Consider Rembrandt (Plate 46 - 47) to illustrate this. The key idea to Hegel's dualistic idea of beauty is purpose. Nature, for all of its sensuous beauty, lacks purpose and so our apprehension of its forms will be limited to its more shallow qualities. A man-made object will always have purpose to some degree or another. The perception of this thought is what distinguishes the higher form of beauty.
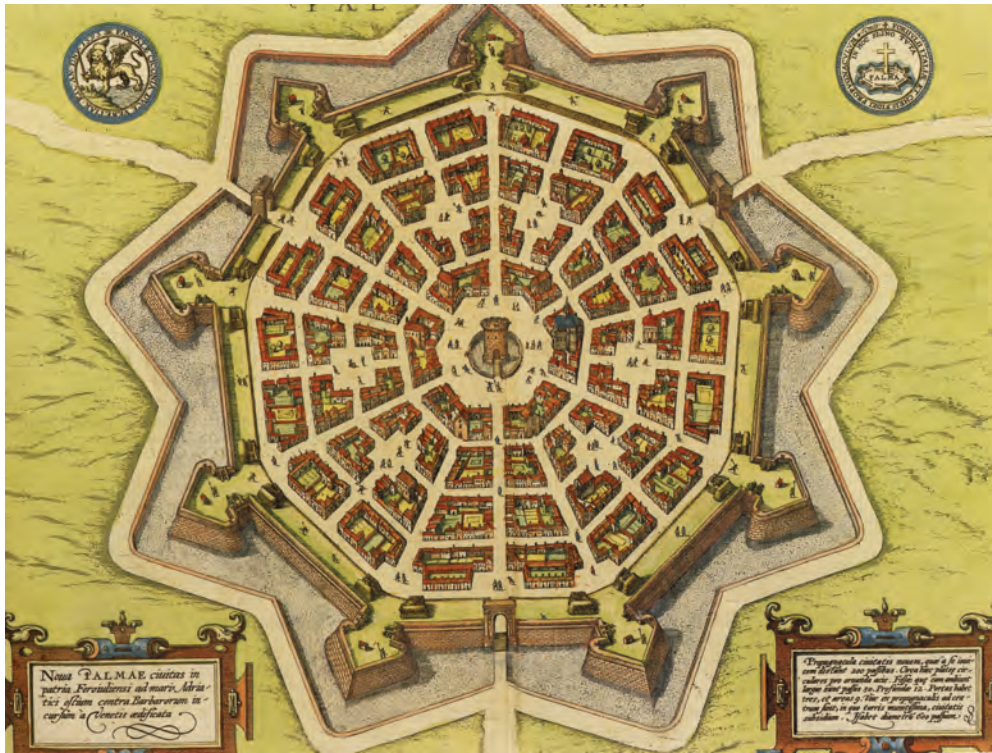
Plate 50   Palmanova, Italy, 1593

Plate 51   Bruges, Belgium, 1562

Plate 52   Abin Design Studio: The Newtown School, Kolkata, India, 2015

Order stemming from this purpose is an idea that should be explored in relation to beauty. In this context order does not mean grids or regular lines; rather, it refers to logic, purpose, and the underlying rules defining why an object is the way it is. A solid distinction should be made between order as an idea and regularity. Consider a tree for instance (plate 48). It is decidedly irregular in its makeup, however its forms are derived from processes: how the light hits it, the direction and intensity of the wind, the composition of the soil and place. It is a very ordered object owing to its productive relationship with these forces. Move into architecture and consider Gaudi's work. It is somewhat unique among architecture in that it goes to great lengths to not be architecture but organic in nature. It attempts to hide its quality as a constructed object but always there is still an underlying human logic, an order just begging to be discerned. Another example might be the cobblestone footpaths here in Lund (plate 49). They are not in grids and their geometric setting doesn't make much sense until you come to the realization that the semicircular order they have is a consequence of the human arm. Or, in a larger scale, consider Palmanova (plate 50) against any organic unplanned city (plate 51). The geometric order of Palmanova has no basis in anything other than a distant ideal while the organic city is guided by the land and by its inhabitants. The order of the organic city is based off its people and by working to understand it we gain a greater understanding of them. This is important because it is this underlying order that invites contemplation. It does not have to be immediately apparent but we will feel

when it is there and work to understand it. We will of course labor to understand an object that does not have an order. Consider the randomized façade (plate 42 and 52). An observer will attempt to find its underlying logic and if there isn't one will come away disgruntled and dissatisfied. It will smack of betrayal and immediately cease to be an object of attention. Refer back to what we said about understanding architecture in terms of purpose. A randomized facade finds itself completely and utterly severed from any connection from the base architectural needs of its purpose. It is this order, this characteristic, that demands contemplation, that is a key aspect of the beautiful.

Saint Augustine described beauty as a property of heterogeneous wholes. "The beauty of the course of this world is achieved by the opposition of contraries" (55) "whereby, in the service of his (and the true) God in diversity of harmonious and proportionate sounds, he mystically describes the concord and unity of the celestial City of God" (56). This suggests that order on its own is not enough but variety is needed as well. To put it in another way, if we are looking for order and harmony, then both ideas are meaningless unless one is actually ordering and harmonizing something. It is the process of balancing discord that gives these ideas meaning and so a homogeneous whole gives little to no opportunity for order. Imagine an array of blank white walls. Such a thing could be considered to be ordered and harmonious but it is neither since there is no tension to balance nor diversity to order; it simply is. Refer back to Aristotle's ideas that simple objects such as basic geometry or a pure musical note are beautiful owing to basic sensory experience. One can easily see that a single musical note hanging in the air is beautiful; however, take that same note and play it repeatedly and it quickly stops being beautiful. This concept points back to the previous discourse on a conception of architecture not as a singular whole but as parts brought together into a theoretical whole.

Further, the idea of a feeling arising from the experience of art points toward a key point concerning not just the content of art but beauty as a general concept. In the words of Hegel, "Its aim is therefore placed in arousing and animating the slumbering emotions, inclinations, and passions; in filling the heart, in forcing the human being, whether cultured or uncultured, to feel the whole range of what man's soul in its inmost and secret corners has the power to experience and to create" (57). Kant's ideas on the subject of beauty were that beauty is not some inherent characteristic of an object on its own. Rather a 'beautiful' object is one that stirs the soul, fires the imagination, and brings a deeper awareness of our humanity. In short beauty is found in an effect on us, in its capacity to move the mind. One can find similar precursor ideas to these in Aristotle's Poetics. Aristotle explored the appeal

of the tragedy and the essence of his findings were that the experience of exaggerated humanity will cause movement or oscillation of emotion or thought which is pleasurable. This ties closely with an idea of freedom that both Hegel and Kant held. Hegel considered beauty to be an objective quality of an object, as opposed to Kant who viewed beauty in terms of the movement of the mind separated from the object. It seems that in Kant's view a beautiful object is one that carries inward content, it brings the mind to preexisting ideas, while in Hegel's view art introduces new ideas. The thoughts that we derive from the perception of art are not independent of the content of the art. In Hegel's view, art gives a sensuous manifestation of freedom. The artistic object, whatever it may be, shows us concretely what freedom is and with that it may only be a production of a free spirit. Art can bring us to understand the extremes of what a human is capable of feeling or thinking and this is beautiful.

There is a distinction between what is pretty, or pleasant to use Kant's term, and what is beautiful. The two are often conflated but bear little relation to one another. It really comes down to a question of depth or triviality in making the distinction between prettiness and beauty. One might look to an object and think 'this looks pretty' or not and there is little more to the interaction. Prettiness is determined by an immediate action on the senses together with a highly subjective and state dependent reaction. A beautiful object is determined to be beautiful by thinking through its essential qualities which makes it a far more objective and timeless quality than prettiness which is by nature ephemeral. Kant defined the beautiful as "that which apart from concepts (ie without a category of understanding) is represented as the object of a universal satisfaction"(58) . That is to say, Kant regarded the judgement of beauty as being possible only to cultivated minds without the addition of immediate animal sensing or concept which is necessary for it to take on a universal character. Put simply, the difference between how something looks, which is immediate, and what something is, which requires reflection, is the distinction between prettiness and beauty.

When we make a judgement that something is beautiful it is akin to making a moral judgement. We have determined the object to be good and virtuous. What then does it mean for a work of art or architecture to be these things?

6
The Content of Architecture

We are interested here in the source of architecture, 'the end of art' as Hegel called the object of his search. We might think of it as a search for the root drivers and guides for creative impulse.

The Dream

Hegel's ideas point towards an aspect of the arts as the vitality of life and imagination acting upon the world. The act of creation by its nature demands a consideration not just of how the world is but also of how it was and how it could be. For the most part a work of art, even representational art, is not setting out to represent the object but rather to represent how the artist imagines the object to be. It is not about copying what they see so much as copying the mental images that make up their imagined reality. In the words of Adrian Stokes, "Culture has been the recompense and the mode for sublimated desire" (59), and art is the means by which man projects and writes into the world his fantasies "a world of actualized beauty" (60). This dream, as a manifestation of desire and thought written into the world, forms the primary focus of content to the arts as a whole. In the words of Hegel, "The content of this world is the beautiful, and the true beautiful, as we saw, is spiritual being in concrete shape, the Ideal; or, more closely looked at, the absolute mind, and the truth itself" (61).

In Plato's thoughts art is a hollow representation of reality, a low form of deception, and because of this view he considered art to not be worthwhile. Art as deceptive picture of reality gains the ability to stoke moral decay and unfounded ideas on the functioning of the world. If it were the case that art were a representation of reality as it is, then this view of Plato would be fully justified along with his dismissal of the arts. Since art continues to stubbornly hold sway over man then we must consider it as being worthwhile. It reaches this state in its ability create and represent a secondary reality, a dream(62).

Art is both an expression of this dream and its creator. It opens man to a secondary imagined life and to a sensuous representation of this life. This secondary life will always in some way be connected to our physical reality but it will be physical reality warped and filtered by the mind in its emotions and its yearnings whatever they may be. The dream represents a life freed from the bindings and responsibili-

ty of an actual existence. It is less that the dream invites this moral decay but rather resists it. It will show us the best and the worst of the human spirit, new ways in which we can live, and new worlds we can create. It then brings us face to face with our own nature and an idea of consequences. When allowed to develop, this dream, with its offering of knowledge as to our own innate nature and of our freest capacities, will shape real life with the actual life coming to be an approximation of the dream. It allows for experiences that would be impossible in the physical world and as a result broadens one's vision for the potentials of this world and alternate possibilities for reality. Consider the great works of fantastic literature, J.R.R. Tolkien or C.S Lewis for example, in their ability to forge new worlds for us. Some would, and have, called these works of boyish escapism but this is nothing more than academic snobbery and near-minded stupidity. We need these works of myth to strive for a new world, away from constrictions of real life, so that we may truly explore beauty as well as ugliness, truth as well as deception, good as well as evil, and heroism as well as cowardice. Without the dream and the free expression of the human spirit, we will lose sight of our highest and lowest aspirations as well as our greatest virtues. We will lose our access to the universal, the knowledge of our common humanity and general nature. Art is necessary to show us the Ideal, the possibilities of self that we may strive toward. We will see the life of man atrophy without this dream.

If we can regard art as creation and creator of this life formed of man's imagination, the different arts manifest and affect it in different ways.

The dream that is manifested by music is the most indeterminate: its effect is one of mental inwardness and "inspiration of soul" (63). A piece of music does not give a concrete vision from another mind rather it rouses certain emotions within us and an accompanying personal vision of ourselves in the world. The dream that comes from music is rather egoistic in nature. Without a solid subject to grasp, the dream it creates will revolve around the listener. When listening to a rousing piece we may find ourselves imagining a new life where we are larger than our current selves and as capable of great things. In other cases we might find ourselves gripped with melancholy. The reason for this powerful reaction to music is that it bypasses all logic and reason, instead speaking directly to the us. With that it can bring the mind to the highest ideals and lowest aversions that are to be found in human nature and with this teaching it can move the world.

In painting and carving what is presented to us is a vision of another mind and the world that they see (plate 53 - 54). These arts present us with a means of using our visual and tactile senses to communicate and understand thoughts about the world. With art there is a consciousness and purpose underlying the art where an artist has constructed a series of sensations and subjects to rouse deep emotions,

Plate 53 Clarkson Frederick Stanfield: *Mount St Michael, Cornwall*, 1830

Plate 54 Peter Paul Rubens: *A Forest at Dawn with a Deer Hunt*, 1635

Plate 55   Skyrim, 2011

thoughts, and feelings. We may be brought to realize a hitherto latent understanding of ourselves and also of the artist as he reveals himself to us. We will come to a sympathetic connection through our newfound understanding of his view of the world and his thoughts, ideas, and feelings as he manipulates material. The painter may project himself on paper or canvas without the need to reference anything or anyone.

The digital age has presented a new means of expressing and interfacing with the dream in the phenomenon of the virtual world. These are fascinating, not just in the worlds they present but also the mirrors they hold up. While interest in the rest of the arts has dwindled, as they have less and less to offer to the population at large, people flock to these worlds. When the rest of the arts turned themselves over to the elite, this industry came along to fill the void and with that they give us a very interesting look at human longing in the modern era. We find exaggerations and alien re-imaginations of reality and in this unbridled state they may tap into a very primal set of human emotions. With the freedom to create and to explore increasingly complete worlds we can get back to the experiences that modernity has taken away: the uneasy fear of wandering through pitch darkness, the calm under the boughs of a dusty twisted forest as light trickles down to meet you, the panic of fighting a superior enemy (plate 56), or the wondrous adventure of looking up at a vivid clear night sky filled with alien constellations (plate 55). They may show us new visions of our own reality. For example, consider Okami (plate 57). It is a world constructed using Japanese painting techniques with entirely alien notions of form, color, and perspective embedded. It could be considered as a modern manifestation

Plate 56 Dark Souls, 2011

Plate 57 Okami, 2006

of mythology. It is humans creating new worlds for ourselves that are rarely bright and peaceful utopias but usually marked by struggle, by a fight to survive, to create, and to explore. It is a rare gift of computing that we have new tools to more completely and more comprehensively manifest and expand the dream.

In architecture we find something quite different. When we walk through a medieval cathedral for instance we find ourselves transported in a very real way into the minds and society that gave birth to that space. We can imagine ourselves as part of that world and begin to perceive the values of their society. As one walks through a medieval cathedral we might imagine a society preoccupied with religion, or we might leave the cathedral and see the town's fortifications of the same era and imagine the aspect of war hanging over the society. Similarly, a walk through Florence and the Duomo might lead us to imagine the state of learning and outward looking commercialism. The accuracy of these visions is often debatable but this is the dream; it does not show us objective reality but it does show us a reality. It is after all an individualized language of transcendent ideas and thus objective but unscientific. The aspect of the dream that architecture necessarily reveals is broad in nature. It will tell us about a society, a township, the values and consciousness of the people.

We are drawing very close here to the metaphysical ideas of Plato concerning the content of the arts. Where Plato theorized that there is a singular truth that all art strives to imitate, the metaphysical source of art is not a singular point of light in the aether or a divine presence permeating nature, but rather a great sea swirling and churning unending. It is not a singular goal of perfection that art must pursue but rather an infinite exploration of an infinite sea of the mind. The success of a work of art first and foremost is determined by how richly and comprehensively it reveals a piece of that great sea. It becomes an expression of longing and perhaps of distant memory long forgotten. The objects in our world become charged with emotion when they are linked to the deepest fantasies of man. With that first sketch man opens himself up to a new life born of the infinite possibilities of the mind as it interacts with the endless possibilities of nature. With his hands, his tools, and the malleable matter that surrounds him, he will begin to manifest this dream in the waking world. By doing so he will bring his unconscious feelings to reality and become whole.

(I should like to take a moment to point to an article in The Guardian titled "The Rise and Fall of Joshua Reynolds" (64). In it the critic levels the complaint against Reynolds that "His fault as an artist is, in the end, that he prefers the ideal to the real." To this I would ask what is real? Would some sage care to enlighten me as to some singular truth of this reality? If we were to look to current artists for a cue as to the nature of this reality we might be led to believe it is nothing more than endless grime and trash as though these are the highest ideas humanity can strive for. Idealism is a foundation of art, and truth is not something that one either has or does not have but requires a constant search. The instant you think you know what it is, that you have a grasp of truth, is the instant you can be sure you do not have it.)

Interestingly this idea of a dream ties very closely to an idea of function. This connection is worth exploring as functionalism continues to be a misunderstood idea. The first immediate problem arises in really defining what we even mean. We can say that function must be defined in broad terms, not just in the mechanical aspects of use but also in the 'psychophysical' as Aalto put it. If we look at certain aspects of the lower arts, of decoration, and of the things that people choose to place in their environments then we are looking at objects that serve a psychological function.

Roger Scruton has discussed the issue at some length (65). In this context, architecture is a problem solving activity. An architectural problem is a difficult thing both because there are many factors we might frame as problems and because solving one problem can very easily create another one. This complication means that we can't determine the effectiveness of a move by reductive theory. In the words of Scruton:

"to Le Corbusier,the human being has a need for air, light, open space, movement – everything, in short, that is not architecture; the high glass tower raised on pilotis above a park seemed to follow as a matter of deduction from that statement of the human 'problem'.... Nevertheless, the absurdity of his plans and the manifest dissatisfaction which has ensued upon the use of his 'solution', serve to suggest that this concept of a need, in its standard architectural usage, is an impoverished one, and can serve to reduce architecture to a species of 'problem solving' only by fundamentally misrepresenting the architect's purpose."(66)

Functional could be defined as that which meets human needs. As far as needs go, there is a dualism to what humans need as described by Hegel. In one part are animalistic desires for food and shelter, or more broadly to meet immediate physiological needs. Meeting these animalistic needs is what we typically think of when using the term 'function.' The other concerns our needs as intellectual creatures to gain a knowledge of our lives. It falls to us then to define this conception of need.

The second point is an interesting one to look at particularly in the context of our last conversation on the dream. To Scruton the process of reaching fulfillment and happiness as an intellectual being comes from gaining that which we value, as opposed to that which we merely desire. There is difference between values and desires. The things we desire and prefer, such as certain foods and drinks, we have no obligation nor need to support or justify. Values are more significant in that they will have a presence in our practical reasoning and attempts to understand the world (67). Values are rooted in knowledge and education and can be supported or reject-

ed through reasoning. "A value is characterized not by its strength but by its depth, by the extent to which it brings order to experience." Values concern the aims of life, where subjective choices and desires are immediate.

If in old architecture we can begin to perceive the values and beliefs of those that built them it is because humans express and push their values into their architecture or more broadly their way of living. Architecture, or really all the arts and acts of decoration, concerns the process not just of expressing but of also forming values. It involves a critical aspect of judgement as to what is appropriate, not just in the immediate, but for all future potentials. These acts of choice then require a degree of imagination in determining what life would be like for the human, as a rational being that is more than the sum of its desires. It is these choices and this judgement that form a center point to finding a sense of self.

This idea of imagining how life could be is a major driver for content. We can look to the houses of the wealthy in America and see evidence of this. We might see homes filled with baroque era furniture and gilt on the walls or perhaps we might see a 'minimalist' dwelling in the international style. The point of these choices is how the occupants choose to see themselves and through that point of imagination they form a sense of self. The one in the gilded palace will invariably behave differently from the one in the 'minimalist' dwelling and they will both form differing images of self. Architecture is a participant in how we live our lives but not only this, it is also a key to understanding. Architecture will either force alien understanding and values on the human or aid in their own individual efforts to self actualize.

The entire conversation on functionalism then needs to revolve around human understanding and experience. Experience is not a static thing and hence any attempt to solve architectural problems in a one off sort of way, as functionalist doctrine attempts, will fall short. We need a more organic mindset in both determining and solving problems. The truly functional objects in our world did not come out of a singular individual setting out to make them functional. This sort of self-conscious rationalist pursuit will be counter-productive as it will have its basis in conscious thought, which is extremely fallible and constrained, rather than experience and intuition. Alvar Aalto decribed this:

"Architectural planning operates with innumerable elements which often conflict. Social, human, economic and technical demands combined with psychological questions affecting both the individual and the group, together with the movements of human masses and individuals, and internal frictions-all these form a complex tangle which cannot be unraveled in a rational or mechanical way" (68)

Whether or not an object is functional cannot be determined free of actual experi-

Plate 58-59 Agostino di Duccio: *Diana and Jupiter*, Tempio Malatestiano, Rimini, 1449-1457

Plate 60 House of the Faun, Mosaic, Pompeii, 2nd century BC

Plate 61 Pietro Canonica: *The Abyss,* 1909

ence, experience that can also change, which means that the very idea is not a static one and cannot be determined a priori. Functionalism can be thought of as a process. It is not an end, it is not a beginning, and it certainly isn't a singular idea unless, of course, one wants to set out to strip humanity of all individual values and force them into the same mold.

Architecture has a purpose always and without fail and we form understandings of architecture through the lens of this purpose. With that said, the self-conscious pursuit of function as an end is self defeating. Humans are neither rational nor particularly predictable and so a rationalist basis for determining function would seem to be insufficient. Function is something found intuitively and to treat it as a singular goal not only fails to give a decent basis in content but tends to look only at very narrowed animal needs, which are after all the only remotely predictable ones.

Material

What follows from this and how do we proceed in determining a more concrete basis for content? Corbusier once said that architecture's first loyalty is to the fabric within which it exists, which provides a solid basis on which to continue. We have a reasonable basis in the human element of this fabric, which we should consider as the most important in its capacity as giving and demonstrating significance in life (69). Architecture is a physical thing, however, and so to give a guide in determining architectural content the next most important contextual relation is to material.

Consider materials from a conceptual and largely unconscious standpoint as a driver of content. Adrian Stokes suggests that there are fantasies that we associate with limestone through its connection to water both in its formation and in the deep sea fossils that one finds in it. There is a life implicit to the stone and when looking to the Quattro Cento, or more generally the Mediterranean tradition, stone carvings we find this life being drawn out with the idealized forms (plate 58 - 60). It is an unconscious fantasy of the material that stimulates the imagination of the artist to choose one material and not another. It gives us, the observers, an emotional connection to perceive this choice when it was not compelled by any practical or even conscious reasoning. Consider the soft glow of marble in the sun so reminiscent of the glow of human flesh (plate 61): is it any wonder that it has captured artists for millennia to render human form?

In a far less conceptual way material is a major factor in determining art and architectural style. Consider the first fan vaults of the English Gothic (plate 62) that

Plate 62 Gloucester Cathedral, Cloister, 1351-1377

were made possible by the local abundance of lightweight travertine (70). The advancements of Roman architecture in masonry and arches owe themselves to the plentiful and local existence of such lightweight stone as well as the material for making their concrete. One finds such trends the world over where architecture is shaped by its materials. Look to the works of ancient Greece with the consideration that marble was the material available to them. The simple post and lintel construction they used was a natural outgrowth of the native capacities of this marble, alongside the needs of an unstable landscape, because marble does not lend itself to more rigorous structural systems. Too often in modern constructions masonry, or indeed a great many materials, are used merely as a screen to a steel and concrete construction and consequently there is little conviction in their use. Consider the 'black diamond' library in Copenhagen (plate 64). In its outer finish, no stones of that nature are to be found in Europe at all much less Denmark and had to be shipped from Zimbabwe. The question is why. It is likely because those stones were shiny and black and the architects simply chose them to fit this desired abstract effect. Contrast this with Peter Celsing's Riksbanken, (plate 63). While the Black Diamond is attempting to render an abstract idea in stone, the Riksbanken is attempting to render the qualities of the stone itself. The effect is tied to the nature of the material rather than the material being forced to produce an effect. Even the

Plate 63   Peter Celsing: Riksbanken, Stockholm, 1976

Plate 64   Schmidt Hammer Lassen: The Black Diamond, Copenhagen, 1999

Plate 65 House of Amour and Psyche, Ostia, 4th century AD

Riksbanken is simply using stone as a facing and so, even though it is taking advantage of the stone's grain, it is still a plastic structure covered in stone, a form that has been derived independently of the capacities of its material. To be fair a disingenuous attitude towards material is not solely a modern phenomenon. The same trends can be found among Roman architecture. They would face their brick and concrete structures with marble (plate 65), seemingly out of a misguided notion of how objects should look that they inherited from the Greeks. Offset this against any humble ancient stone building. It generates far greater interest in its ability to make us aware of its place. One may even look around and perhaps see the quarry that gave the stones that built it. It does not matter if we are talking about the meanest of huts or a renaissance palace, the object becomes an expression of its landscape carved and shaped by men (71). Material and its limitations can give a strong guide to the content of architecture. Without this we are left with merely plastic form.

These ideas point to the Ruskinian notions of honesty or authenticity which can often be difficult to navigate. A corner section from the Seagram building (plate 66) presents an interesting point of discussion (72). Here we find a large steel I-beam encased in concrete for fireproofing and then covered with a very thin layer of steel. Is this dishonest? Certainly the outer layer of steel serves no structural purpose and is concealing the layer of concrete such that we might be led to believe that the column is solid steel. On the other hand, if we took away the outer steel
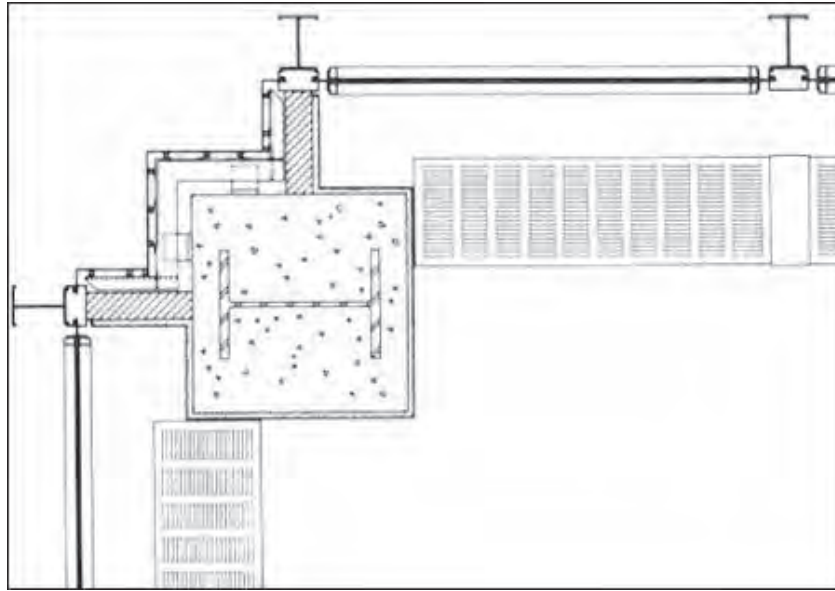
Plate 66 Mies van der Rohe, Seagram Building-corner section, New York, 1958

then we would see concrete without any idea that an I-beam lies within. There is an argument to be made that the outer layer of steel is revealing the inner core of steel and the true nature of the column. This specific example is not one easily resolved so to clarify the issue let's look to Roman architecture for a less nuanced view. Here we will find a habit of taking constructions of concrete and brick and cladding them in marble with the express purpose that the structure then looks like it is a marble one. This creates a problem where a viewer is given a false understanding both of the structure and the material. For the same reason that marble is excellent as a medium for carving—as stones go it is rather buttery—it is terrible as a structural material. If one had an inclination to place carvings on a wall then it would be perfectly acceptable to use a stone that lends itself to carving with the understanding that it does not pretend to be something that it is not. It is a matter of ignoring deeper qualities and instead looking to shallow ideas of prettiness to the detriment of that sublime moment when an intelligent observer begins to understand the nature of an object. Further, it is not only a betrayal of the genuine and noble qualities of building and material but of the labor that made them. Today we find the same inclinations as the Romans, whether it is to clad a concrete column in marble or the phenomenon of fake brick facades, because these are pretty things, yes? A brick wall can be as beautiful as a marble column, but these things are only beautiful when they are authentic, as an expression of the material and the specific attentions of labor they invite.

Consider the Lloyds Building by Richard Rogers which embodies the values of the lamp of truth as much as anything (plate 67-68). The technical aspects of the

buildings are pushed outside, celebrated, and given a rare clarity. This affords the observer an opportunity to understand the architecture in it's entirety. With the rejection of deceit, this building opens up to the sublime moment. This is reminiscent of Adrian Stokes' discussion of plastic architecture. He described plastic architecture in terms of the brick dwellings of the time "molded like cheap tea cups" and of the convention to pick a stone to fit a preexisting design rather than the reverse of letting the character of the material shape content. In this sense Rogers' work is most decidedly not plastic, rather it is pieces put together and a whole considered in terms of material rather than the reverse. A large part of the design emerges from the relationship of part to part and of the capacities of the materials. This further adds to the enjoyment of the building where, unlike in a molded structure, one can look to parts and connections and perceive an element of truth in how these elements are working together. Ruskin of course would have objected to the use of steel and of cast or machined elements or perhaps would have likened the exposed services to a human wearing their organs on their head. For my part, I have some serious general reservations about steel and glass in their relative inability to accept time or to decay with grace and there is a certain lack of potential for a gradual life. With that being said I should clarify that it is less a problem with steel and glass and more the overuse and misuse of these adamant materials. To give credit here, steel is used to achieve affects that would not otherwise be possible and this building gains its own unique expressive qualities as a result. I would go so far as to call the Lloyds building decidedly Gothic in its expression of material, structure, and interior space as well as its unashamed celebration of truth in itself. It is not trying to look like anything else or give meaningless representations of past ages. All that the Lloyds building lacks is the influence of lower arts to complete it, to draw away some of its bareness and add the expressive element of the human to its impressive mechanical, material, and spatial expressions.

Without the expression of material limitations we are left with nothing more than gesture, a conscious effort towards novelty. Look to the wall of Tiryns (plate 69). No forced and empty sculptural forms are found but rather an organic object that breaths a satisfaction. This can only be found in an object that expresses in its lack of self-conscious forms the processes of minds working to fit together in an appropriate way the trappings of the land. The Gothic is in step with this tradition as is the Lloyds Building.

Time

Time forms a major aspect in this conversation. This takes the form of matter, as I began to express in my story about the wall, with a material coming to

Plate 67 - 68 Richard Rogers: Lloyd's Building, London, 1986

Plate 69 Wall of Tiryns, Argolis, Greece, 1200 BC

gain the imprint of its place as it weathers. This can take many forms from the golden finish that marble gains in Greek sunlight (plate 70) to the rainwashed Swaddywell limestone of Stamford, England. Matter is something that may take on the imprint of time without loss, quite the opposite, it rather gains from the interaction. It is an aspect and potential for architecture to crystallize time, to take the long history of humanity and make it real for the viewer to turn it from an abstract to a concrete part of human reality.

There are many who enjoy art not for aesthetic qualities but as a means of enjoying and understanding history. "Architecture has recorded the great ideas of the human race. Not only every religious symbol, but every human thought has its page in that vast book."(73). The intellectual enjoyment of the architecture becomes a process of apprehending and understanding the thoughts and values of the past as they are comprehensively manifested by art and architecture.

It is heavily dependent upon material what the exact interaction with time will look like. Stone may take millennia and only gain new layers of meaning and character from the interaction. Steel is comparatively more vulnerable, degenerating in a matter of years unless it is constantly maintained. The point is that time spares nothing and to attempt to work as though some timeless state is possible is to sign on for misery. It is for us to choose what time will do for us as there are many examples of architecture for which time and activity offers maturity. To the point where we could consider some buildings as impossible to properly experience until they are twenty, fifty, or hundreds of years old.

Feeling and Emotion

The reflection that architecture and art is pleasurable to humans through its action on the senses leads us to the idea that these are intended to arouse an emotion. Aristotle along with many others investigated art as an investigation of feelings and how these feelings could be pleasant. One might think then that we could

Plate 70 Parthenon, Athens, Greece, 432 BC

consider the arts, including architecture, as an exercise in creating certain feelings in others.

Considering feelings and emotions as metrics for evaluating an artistic piece, as Hegel did, doesn't lead us very far as emotions are extremely indeterminate and dependent upon individual subjectivity. The feelings of fear, anger, etc. in all their forms are based upon the subjective mind of a person in their own interests and what they view as negative. These have little to do with any concrete object. Feelings become an empty and indefinite means of reaching a critical understanding of art, much less as a guide for content. It leads to studying individual psychology in isolation from the substance of art. It is not so much that feeling and emotion is unimportant; it is more that these elements are comparatively shallow and that it is difficult for art to find a solid and lasting purpose in the simplistic goal of rousing emotion (74). The feelings of others are a secondary consequence.

The relationship of art to feelings doesn't end with the idea that art should rouse a specific emotion from us. A far more important factor in this relationship is the ability of art to externalize emotions for us (75). For example, in the case of extreme sorrow one might shed tears; this very basic act of expressing the emotion helps to cope with it. Now consider an artist riddled with the same sorrow. With the act of creation he will fully push his emotions into the object which makes those emotions a completely external entity to the man. It is not so much about rousing emotions from others but rather pushing your own into the object. Emotions become something that can be contemplated, turned over, and ultimately mitigated as objects external to us. Art is less about rousing a particular emotion and more

about helping us to understand our emotions through the strong movement of our own feelings when exposed to an equally strong embodiment of another's experiences. This quality of the act of creation, allowing us to control and soothe our feelings, is a critical point in its value. If art is to show us the extremes of the human soul then it requires a process equally founded in the extremes of feeling, of "excessive humanity." If humans are controlled by base emotions then our aspirations in turn will decay. Art is necessary to raise the human spirit and consciousness past the mundane and the profane and into the divine world founded in a mind unshackled by base urges.

Representation, Abstraction, and the Grotesque

Remembering Plato's work on the subject, and many other philosophers subsequently, we might consider the source of artistic content as being from representation and imitation.

A significant problem arises when architecture sets out to represent something else. Sculpture may fully come to represent life such that a statue cannot be seen as imitating a form but fully embodying it in its own life "Marble statues of the gods are the gods themselves"(76). Architecture has a problem in that it cannot reach full representation by virtue of it still having to function as architecture. Take the given contemporary example in its effort to imitate two individuals copulating (plate 71). If a sculptor were to take on that subject they would be able to bring it to a full life, however by virtue of the having architectural requirements this building must stop short of representation. It becomes simply an architectural piece that has been warped and therefore it starts to be grotesque (plate 73).

To consider this from another angle consider a representational art more broadly . In the words of Roger Scruton, "a representational work of art expresses thoughts about a subject" (77) and, to a viewer, their understanding of a representative work is dependent upon their awareness of its subject. A representation of a tree only has meaning when the viewer is familiar with what a tree is. Representative art is entirely dependent upon the knowledge of the viewer and true understanding of such art will never be reached without requisite knowledge of the subject being represented. In architecture this pushes the meaning of the work away from the content of the work itself and towards what it is meant to represent. Reconsider the Black Diamond in Copenhagen. It presents a representational work in that its sole meaning as an object comes from the understanding that it represents a 'black diamond.' We might also look to the Flame Towers in Azerbaijan (plate 72) as an illustration. If one were to take away these names and points of reference then as objects they would lose what little meaning they have. In a broader sense architec-

Plate 71 Atelier Van Lieshout: *The Domestikator*, Bochum, Germany, 2017

ture may represent a certain society or sect of people in time or to embody within itself many representations. These are inherent possibilities to architecture. However, if we narrow the question and ask if it is the business of an architect to set out to represent a singular subject the answer is a resounding no. The meanings of architecture are many and generally abstract in nature.

Here we should take a moment to address the idea of a purely abstract understanding of art. There comes a point when abstraction can be driven to too great an extreme. This should be addressed in terms of the idea of the dream so the previous conversation is not misunderstood. To look at Hegel's views of sensuous natural beauty, and the intellectual form, we should note that in nature we may find many differing types of order and variety. However, when we view, for instance, a field of flowers it is with disinterested contemplation. We might even unfocus our eyes and enjoy the scene as a collection of forms and colors altogether unrelated to them as objects. Consider, for example, Van Gogh's Starry Night (plate 74). To

Plate 72 HOK: *Flame Towers,* Baku, Azerbaijan, 2007

Plate 73 L'Enfer Cabaret, Paris, France, 1892

Plate 74   Vincent van Gogh: *Starry Night*, 1889

reduce one's understanding of the piece to an abstracted one of forms and color balance would entirely miss the point. What it shows us is a view of the mind of the artist, what his world and what his dream was, or at least a piece of it. But we cannot understand this dream without understanding the subjects. The predawn night sky and the village connect us back to the physical world. One could try and re-render the composition without these subjects as simply swirls of color in a certain balance and lay claim to having captured the abstract qualities of the work. However, such a work would cease to be effective art as it no longer presents a dream, an imagined life. And if it can no longer be connected back to life, its usefulness would be very little.

A big aspect of what is important to art is how it presents new worlds to us. It is in the concrete subjects that we can connect our own experiences to the artist's and the artwork to the world. There is a hard limit where abstraction becomes too much and the appreciation of the artwork turns from being of content to being of technique instead. Consider Malevich's black square (plate 75) or anything from Jackson Pollock (plate 76) to illustrate this. In architecture we may look to the many and varied works that seem to stand in opposition to any material reality but instead choose to try to create pure, timeless, and detached 'things' for want of a better word (plate 77). We can look to many examples of architecture for whom abstraction means the elimination of a multiplicity of meanings and can find ourselves in a
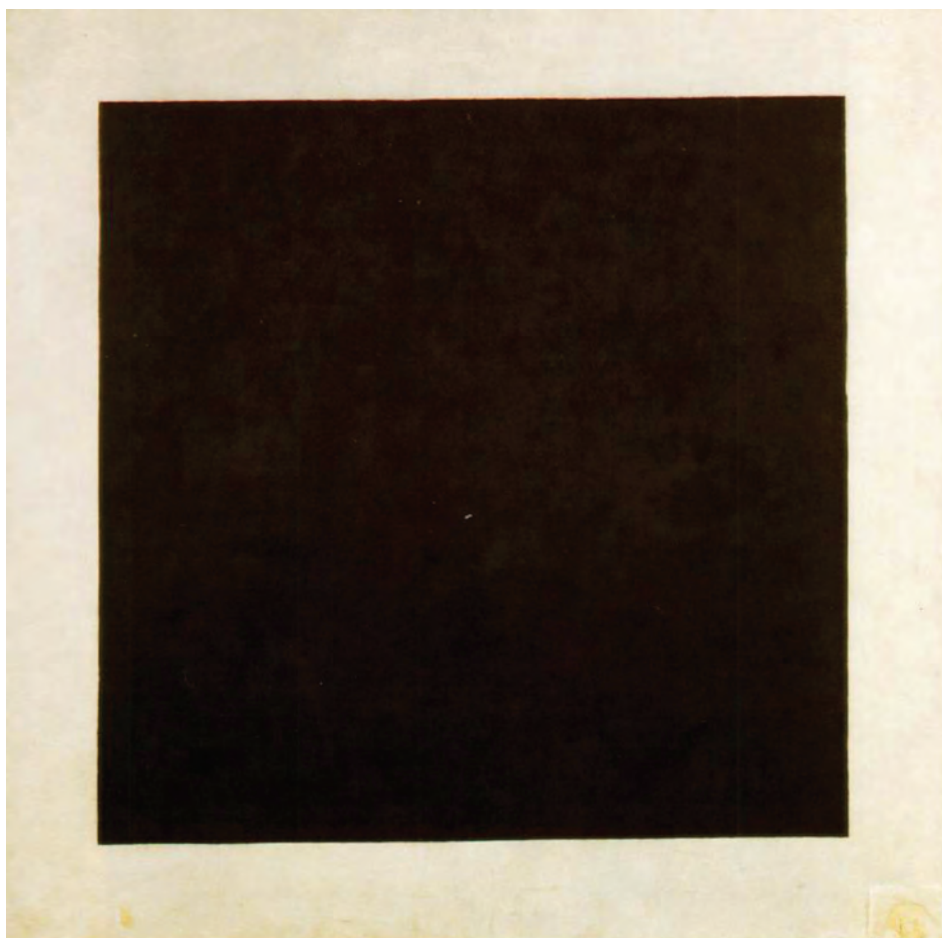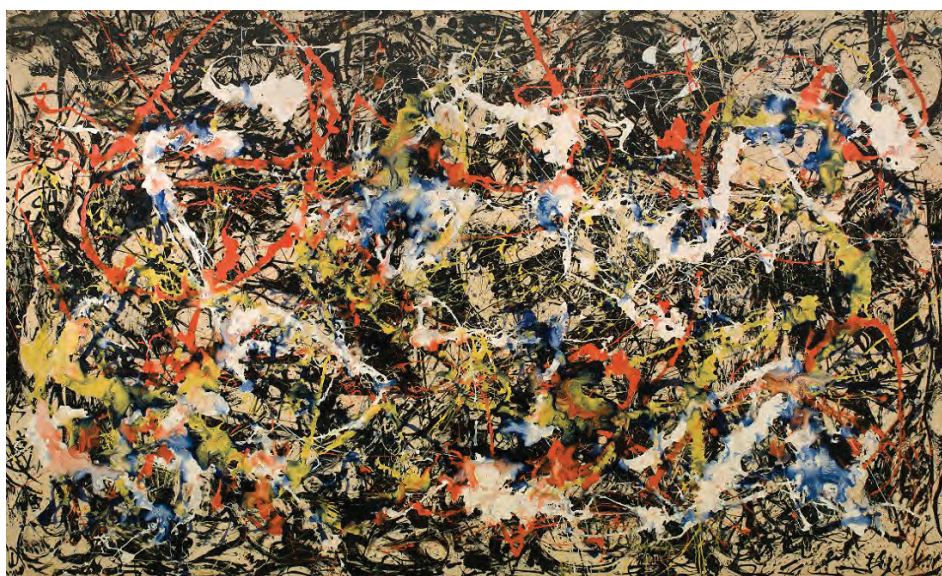
Plate 75 Kazimir Malevich: *Black Square*, 1915

Plate 76 Jackson Pollock: *Convergence*, 1952

Plate 77 Jun Murata: *House for Installation*, Osaka, Japan, 2014

state where the architectural subject is one of perhaps light striking a concrete wall with nothing else. Even if we can say with certainty that architectural expression is by nature abstract, or at the least not literal, then we must also say that it cannot and must not be abstracted from the field of life that it serves. Art, and architecture, can be abstracted down to the point of losing all serious subject matter and becoming meaningless as expressions of the greater human dream. It is the point where the idea of the work is something that no longer has any bearing on the experience of the work.

Imitation

The issue of imitation in the arts is one close to representation and it is a subject that has been considered since Plato. The question is whether it is the essential purpose of art to imitate. In some sense Plato is correct in that all acts of human creation are imitation in some way. The simple reason for this is that in imagining new objects one must draw on one's experiences. The experiences one has had, the things one has seen, touched, known, and understood, these experiences form the hard boundaries of what we are capable of imagining.

Perhaps we should divide the idea of imitation into two parts. One is realistic imitation in which you see a form or a phenomenon and seek to represent it as it is as closely as you can The second is the ideal or indirect form in which we look to

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Plate 78 William Morris, Wallpaper, 1887

the essential characteristics of life and of natural forces and draw from them in varying proportions (78). Consider for an example of the latter the Greek sculptures of the gods that represented natural forces and human values in idealized human forms. "Man will make of them formal gods, statues for the sea and for the rain, and even for the momentary lightning, eyeless statues of human stature" (79). We can further look to ornamentation in architecture and most particularly to stonework, where we can find many objectively lovely examples of fruitful imitation. Consider William Morris's work (plate 78) as well as the long tradition of stone carving from the Gothic (plate 79). When we look at these ornaments though, it is rare that we see them trying to look exactly like some piece of the natural world but rather we see them trying to be like a piece of the natural world. We may see carved vines climbing a pillar but these will rarely be meant to be representational of a specific living vine but rather an interpretation of a vine.

The realistic form of imitation is the more relevant question to our current interest. Do the arts find their purpose and satisfaction in the imitation of natural forms? That is to say should human creation be involved with the faithful reproduction of natural phenomena? There is certainly a foundational connection between the arts and nature in Hegel's thought. In his day painting was absorbing itself with copying nature in order to return to the core of art and as revolt against artificial

Plate 79 Frankish Columns, Toulouse, France, 5th-6th century

Plate 80 Jenny Sabin: *Branching Morphogenesis, 2008*

conventionalism (80). In architecture today we can find a similar drive to reconnect to nature through biomimicry (plate 80) and likely for the same reasons as a means of escaping from the sterile and abstract. At the face of it this is a reasonable approach. Pallasmaa approached biomimicry as a savior moving forward; however, this approach doesn't end up giving us much of value. Biomimetic approaches can help us, perhaps, to hone technical functions. As a giver of form it is as arbitrary as any approach we could name. The human social reality which architecture serves is already an organic thing and a strategy derived from some external biological reality, removed from our own existing organic reality, is quite worthless.

To look at the issue of naturalistic imitation more broadly, consider that if a painter sets out to produce a perfect rendition of, say, a field of flowers, then the resulting picture will always be less than the actual field. An actual field can be touched, smelled, or otherwise experienced and thus understanding of it will be deeper than relying on the picture. It is the measure of interpretation and idealism that is important. Nature gives us wonderful variety of experiences. It is not meaningful for art to poorly recreate these experiences but rather to filter them through the mind and imagination. Art in this form becomes a vehicle for greater understanding of the world and not just an incomplete understanding. In the words of Hegel, "Although external appearance in the shape of natural reality constitutes an essential condition of art, yet, nevertheless, neither is the given natural world its rule, nor is the mere imitation of external appearance as external its end" (81).

Proportion

What can we say about the importance of proportion to architecture. Certainly to the Greek, renaissance, and early modernist thinkers it was of the utmost importance. The attraction of the idea that proportional systems are key to our enjoyment of space lies in the possibility of then codifying such enjoyment because if a proportional system delights in one building it should do so in another. One could then lay enjoyment into a set of rules and architecture could be created from mathematical relationships. Proportional systems offer the idea of being able to scientifically approach architecture.

We can see this mentality throughout history. Alberti wrote extensively on this subject of proportional theory as a means of establishing coherence and agreement between parts and whole. This congruity was to Alberti the primary aim of architecture "by this she obtains her Beauty, Dignity and Value" (82). Pythagoras had shown the consistent and ordered pattern of numbers in nature and Alberti concluded from this that: "the same Numbers, by means of which the Agreement of Sounds affects our Ears with Delight, are the very same which please our Eyes and our Mind" . He made the connection between the general rules of musical harmony, of how differing tones should relate to one another, and architecture. He lays out simple rules for the relationships and interaction of numbers, 1:2, 2:3, 3:4, 3:5, 9:16 etc, the deployment of which we can best see in Palladian architecture (plate 81).

Corbusier similarly wrote about the idea of mathematics and calculation as the key to solving architectural problems and architectural enjoyment: "Rhythm is an equation" (83). In his work, one can see this fascination at all levels with geometry in general and with proportions, particularly the golden ratio, with the theory that the regularity of an equation lends itself to enjoyment, consider a city of towers.

The Baroque architects for their part laughed at this variety of preoccupation with proportion. This mentality came out of the resurgence of skeptic philosophy in that age. To follow along with the reasoning why, we should consider the basic aspect of human perception and the dynamic experience of a building. Something that is well proportioned from one angle may not necessarily be well proportioned from another. When we look at the means for proportioning a building it is through the medium of plan, section and elevation. The experience of architecture is generally not an experience of plan, section, and elevation excepting very few examples, typically facades, such as the Santa Maria Novella (refer back to plate 20). Unlike a mathematical equation, which can only be read in one way, architecture has to contend with all the senses in dynamic movement which means that our experience of mathematically defined proportion will be limited.
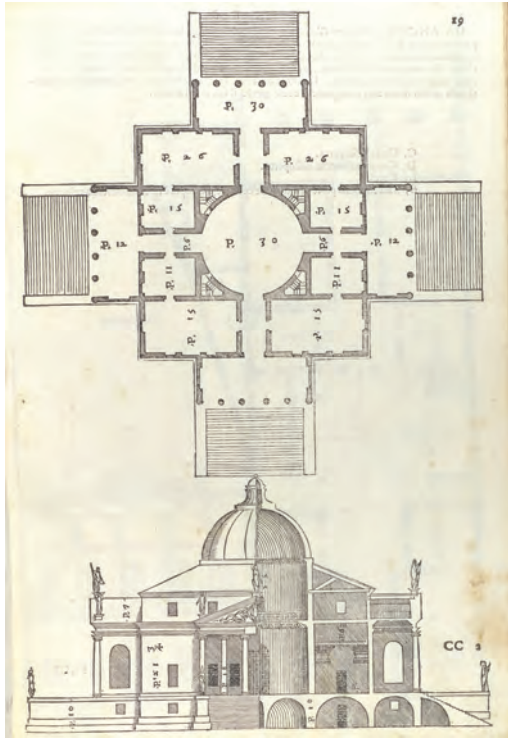
Plate 81 Andrea Palladio: *Villa La Rotonda*, Vicenza, Italy, 1592

Plate 82 Winchester Cathedral, England, 1079

A further objection that we might raise is that the effect of a very carefully mathematically proportioned facade might be ruined by the presence of an overly large stone composing the wall (84). (consider a wall from a cathedral for instance (plate 82). The material reality of the object can stand in opposition to a pure experience of numbers and lines and it is in this context that we can understand a part of the modernist urge to de-materialization. In order to approach mathematics as a key to content and enjoyment then you must necessarily cut away until it is the only source of enjoyment as the more chaotic aspects of craft and material can and will break the effect.

Arguably, a codified view of proportions is quite worthless and rather is something that should be approached with "a minimum in cunning and maximum of feeling," in the words of Adrian Stokes. To turn it into a set of rules is just another means of escaping from responsibility. Alberti in laying out his rules clarified that

A better means of approaching proportion is to consider whether the architecture gains from the presence of humans(85). While this is not a universal value, it is where the classical has much to recommend it. The classical is based on human proportions and human movements. The rhythm of the architecture is in line with and enhanced by the passage of a body. Without the presence of a human we might have lost view of this source of classical forms from the body and movement. These pieces of architecture want a humans moving through them.

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variety is necessary and that they can't overwhelm other considerations such as respect for history. Instead of thinking through an individual problem one can simply deploy a set of established numbers. If questioned on a decision one can say that they used this or that equation, which must be right after all, and if the result is less than ideal then that is hardly your fault. It seems to me that the deployment of mathematics in architecture starts to take on the aspect of mysticism: surrender to the numbers for numbers are never wrong. Apart from this, operating from the pure standpoint of numbers falls short of explaining architectural harmony and architectural order much less its value.

Detail

With the dream we can consider architecture as communicating the minds and values of past humans. What is it in architecture that communicates these things? Our apprehension of this meaning in architecture comes from a sense of detail as it is details that tell us of human activity. To borrow from Scruton's example of the subject, "One might think of a Romanesque cloister in terms in terms of the industrious piety of its former inhabitants: in terms of an historical identity, a way of life, with which this habit of building was associated"(86). By the very order of the architecture, the nature of its rhythms, and the character of its details (plate 83-84), this idea that we find in ourselves is neither subjective nor abstract but something that can be experienced in the details of the building.

The major architectural units such as are based on structural or bodily needs remain more or less static through time. A column is a column, a door a door, and the spaces of architecture are predominantly determined by external factors. The architectural whole will be more or less slaved to the needs of site and client. It is this characteristic that lead Ruskin to draw the distinction between architecture and building. "No one would call the laws architectural which determine the height of a breastwork or the position of a bastion. But if to the stone facing of that bastion be added an unnecessary feature, as a cable moulding, that is Architecture "(87). That is to say that architecture refers to everything technically useless in a building. This is not because the architect does not touch those technical aspect nor because the architecture, in this sense, is not dependent on those utilitarian aspects, rather it is because these aspects of building are dictated by forces outside the architect's control.

How shall we define here what a detail is? This can be difficult owing to broad field of attitudes and treatment of the detail. In the Renaissance they had a tendency to make their details very distinct, they would play a 'note' and let it hang

Plate 83 Saint Peter's Abbey, Moissac, France, 1100

Plate 84 Porto Cathedral, Portugal, 14th century

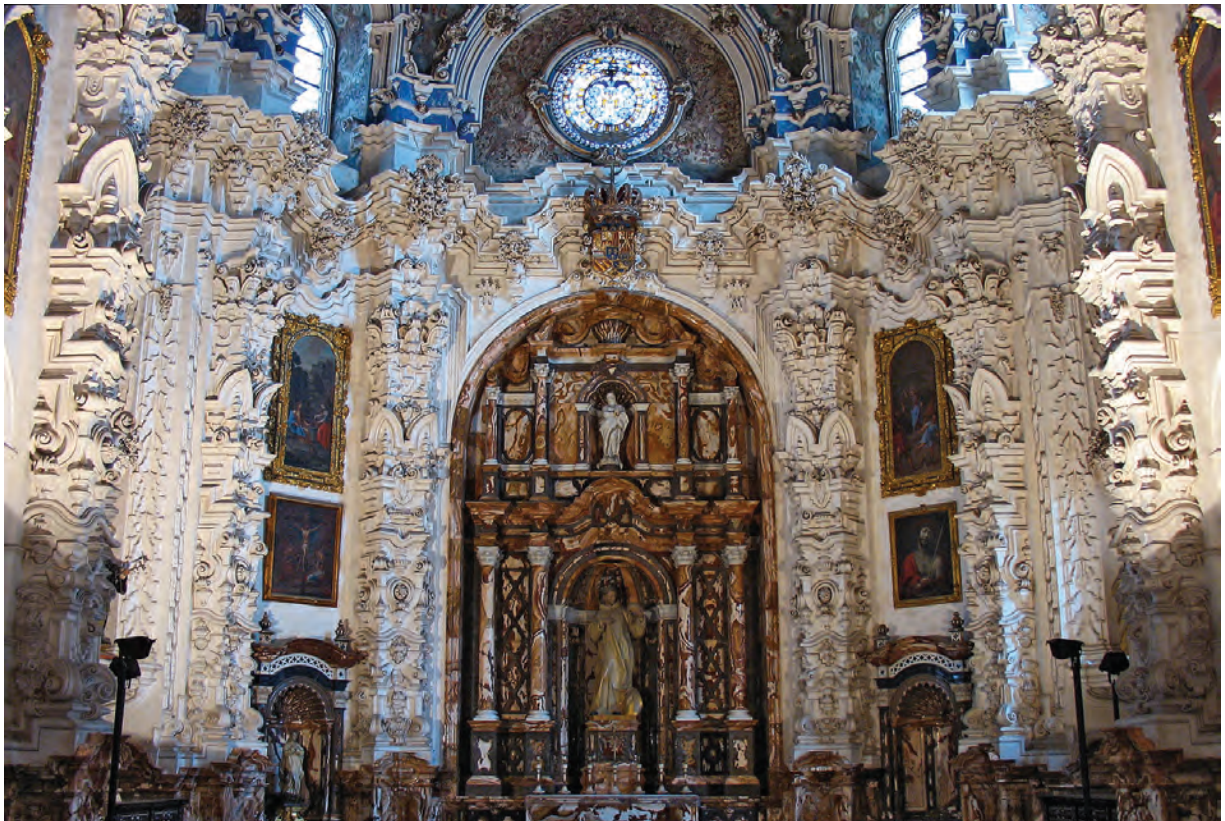**Plate 85**   Doge's Palace, Giant's Staircase, Venice, 1491

Plate 86   Granada Charterhouse, Spain, 1764

Plate 87 Mies van der Rohe: Farnsworth House, Plano, United States, 1951

a moment in the air before adding another (plate 85). It is this quality perhaps that lead Wolfflin to describe Renaissance art as "heavenly calm and content"(88). In the Baroque we find this calm replaced by a cacophony (plate 86) such that when distinguishing one detail from another we might be reminded of Loki's Wager, it is as determining where the head ends and the neck begins. An attempt at a solid definition would lead us down a philosophical rabbit hole and so perhaps as a generalized account we should think of details as those distinct elements bearing the mark of an individual mind and hand. This can take the form of consciously made decorations or simply the sense of material having been fitted together.

　　We should say that by detail we do not mean nonsensical and meaningless baubles attached to an otherwise functional frame as this would miss the point (89). Adrian stokes described both carving and structure as coming from a love of the inherent qualities of stone. They are two sides of a coin, which might be why he said that all architecture deserving of the name contains some carving. The process of carving, detailing, and ornamenting becomes not some meaningless enterprise but a vehicle for giving greater and greater possibilities for understanding and enjoyment. Alberti once said:

"Variety is without Dispute a very great Beauty in every Thing, when it joins and brings together, in a regular manner, Things different, but proportionable to each other; but it is rather shocking, if they are unsuitable and incoherent. For as in Musick, when the Base answers the Treble, and the Tenor agrees with both, there arises from that Variety of Sounds an harmonious and wonderful Union of Proportions which delights and enchants our Senses" (90)

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Plate 91 Luca Fancelli (possibly): Palazzo Pitti, Florence, Italy, 1458

It brings us closer to the thoughts of those involved in the architecture as well as the architecture itself. It would be difficult to reach an understanding of much of our architecture were detail removed. The detail in its authentic form can guide the mind to greater understanding of the technical aspects of architecture, its structure, its composition, and its material as well as bring us closer to a sensuous understanding of the minds of the builders. Consider the Doric column (refer back to plate70) in how its shape and capital, reminiscent of a squashed pillow, brings the mind to an awareness of the weight it bears, which would be all but invisible without these, technically unnecessary, details. We might further consider the Farnsworth house in how the treatment of the pillars (plate 87) bring to mind the idea of the building as a weightless thing, almost a fabric. We might also think of this in terms of the simple pleasure we gain from the apprehension of such features. Consider the Piazza del Campidoglio (plate 88) in how its pattern unites the piazza and offsets against the buildings (91). The experience of this interaction between pattern and architecture is pleasurable without any structural significance and this is enough to justify its existence. In order for this understanding to happen then the detail must be legible and so acting in a relationship between other details and a whole.

Ruskin said of details, or adornments, "the sight of them contributes to his mental health, power and pleasure"(92). The detail is pleasant and in itself. As Scruton put it, through detailing, which is well within the architect's control, one may turn an otherwise unpleasant building or situation into a charming and significant one (93). We do not always have an ideal situation to work with. We are willing to forgive an unfortunate situation for a building if its detailing is pleasant, consider the industrial sites of old (plate 89) where, despite their typically utilitarian nature, their detailing made them not just tolerable but pleasant additions to the city. A sense of detail brings a building down to a human level. The scale of the Seagram building or of a Gothic cathedral will not bother us as it will with a more contemporary skyscraper. The difference is in the presence of these treated parts, which give the eye rest, and familiar points we can attach to and use to understand the whole and lose sight of its massiveness. It is through detail primarily that we are able to turn matter into a depository of fantasy. In the words of Ruskin concerning forgotten builders:

"We know not for what they labored, and we see no evidence of their reward. Victory, wealth, authority, happiness—all have departed, though bought by many a bitter sacrifice. But of them, and their life, and their toil upon the earth, one reward, one evidence, is left to us in those gray heaps of deep-wrought stone. They have taken with them to the grave their powers, their honors, and their errors; but they have left us their adoration." (94)

To frame the question in another way consider Chillon Castle (plate 90). It is
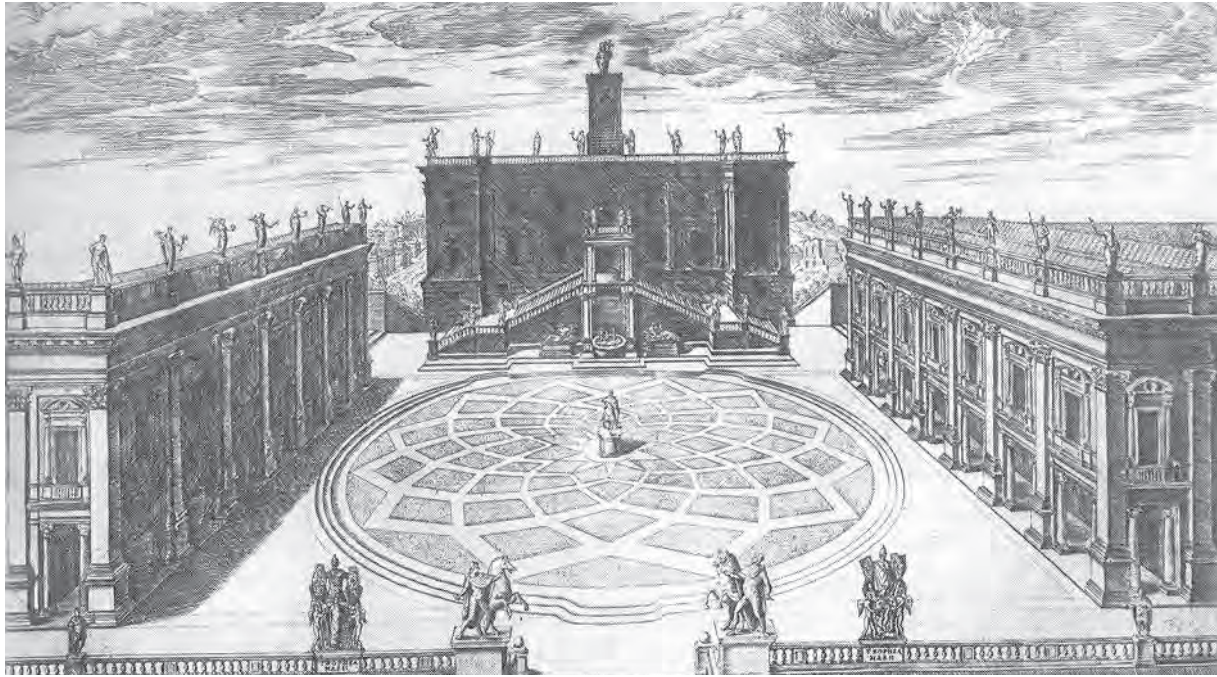
Plate 88   Michelangelo: Piazza del Campidoglio, Rome, Italy, 1546
Engraving by Étienne Dupérac, 1568

Plate 89   Textile Factory, Terrassa, Spain, 1909

Plate 90 Château de Chillon, Montreux, Switzerland, 12th century

not formally spectacular or sculpturally pleasing. Its proportions and shapes have been set by both site and purpose. It does not bear ornamentation as a decorated christmas tree. Yet it has a familiarity to it, a charm and grace that is perhaps difficult to describe. As an object it is not conceived as a work of art and yet it can seize our attention and hold sway over the imagination.

Now imagine this castle perfectly rendered in every formal detail in concrete. The effect is shattered and it becomes a monstrous alien terror lurking amidst the water. This brings us to the most important point concerning architectural content. It is the mark and substance of human labor that gives value to architecture more than any other piece of the puzzle. With it we can identify ourselves with the object to imagine ourselves as a part of its construction. With that it becomes an extension of us. Consider Pitti Palace (plate 91) as a further example of how aptly worked and fitted material, free from an pretense, can affect the architecture. It is what marks the difference between a hostile alien object and a familiar inspiring one.

7
Three Architects

In order to ground this theoretical discussion in reality, recent works of architecture should be discussed. Three architects, Carlo Scarpa, Giancarlo De Carlo, and Peter Zumthor, exhibit in varying degrees and measures, the practical deployment of these theories. By looking at these men we can draw ourselves back into the physical world and see the practical implications of otherwise abstract theory.

Carlo Scarpa's work (plate 92-95) is primarily marked by craft and by decoration with a particular historical character. One can look to his work and see the same Mediterranean spirit that animated the Renaissance. The particular poetic connection of stone and water, such as Adrian Stokes described, is large in this work. In water we find constant ephemeral movement, reflections, refractions, and shadows and the interaction of these effects with solid and stalwart man-placed stones has a captivating vivifying effect (95). The imaginative meanings of stone and water, always so important to Venice, are a key to Scarpa's work and further serve to give it a regional character. We might also look to the presence of detail and of decoration in Scarpa's work. Recall our previous discourse on architecture as frozen music. This idea is strongly manifested in this architecture to the point where I think the idea of a 'whole' in these works is altogether meaningless. Scarpa's work is a matter of small experiences, a journey through tiny details and small treatments of the material. It is a glimpse at extremely heterogeneous and yet unified pieces and with that it recalls a tradition of craft in its sense for very small problems, very small details, and a focus on the experience of the mind. We should look to this work then as a demonstration of the contemporary importance of detail, human experience of these details, of poetic material interactions, and, perhaps, the place of intuitive judgement.

One can find similar Mediterranean tendencies to Scarpa in Giancarlo De Carlo's work. The more striking factor of Giancarlo's work is its connection to broader social ideas and to landscape. One can clearly see this preoccupation with social realities and life in all of his works but the Villaggio Matteotti illustrates this very well (plate 96-99). Giancarlo developed aspects of the plan in constant contact with the residents, in keeping with his philosophy of participation, and worked to prepare it for future eventualities. He opened the development to creative use and individuality by crafting highly variable, fragmented and yet interconnected spaces. Further with respect to topography he left this unsolved in planning and allowed for spontaneous solutions to crop up in construction. We might futher look to Giancar-

lo's work in Urbino to see his interest in the evolving social realities of a city and how to work with them. Between these two projects I think we can see his consciousness of history and learning from it. The fabrics of old cities, and people themselves, will tell us a great deal about human behavior and human longing and Giancarlo was not one to ignore this as the central element of architecture.

With Peter Zumthor (plate 100-103) the primary aspect is material and its relationship to the elements. This is convenient because it points to an aspect of architecture that we have neglected thus far in its relationship to the imperceptible. Architecture in its capacity as 'space', though this term refers to as much a psychological effect as anything, gives the ability to bring to awareness effects that would usually pass us. A new understanding of light can come out of the experience of architecture. In other words it has a peculiar capacity to bring us into communion with the unseen. In Zumthor's case the focus is on material and in how it interacts with plays of effect. Light is a common theme but he also seems to understand the power that weathering has in imprinting new meanings on matter. One can see some importance given to craftsmanship, the material does bear the mark of the hand though it is subdued. Further, Zumthor seems have an awareness of human attention and of how small, visceral, effects can sharpen this. It is similar to Scarpa as far as creating little ephemeral moments from the architecture for the sake of moving minds. Where Scarpa does this with small details in the material, Zumthor does this with shafts of light or forced weathering.

With all of these works to varying degrees we can level the complaint that they are lacking in the mark of the human hand. Giancarlo stands out as having labored to correct this with the realization that architecture, when overly determined and slaved to a singular mind, ceases to be architecture. As admirable as they are in their own right, there is further work to be done.

The value of architecture is something that we can only weigh in terms of the human. In particular we are interested in two things: how humans form and use knowledge through experience and how we form a sense of 'self'. These are the processes we can use to determine good architecture from bad, as attending to these is what it means for architecture to be functional.

Architecture is connected deeply to this idea of the formation of a sense of 'self' When we consider art in the context Hegel places it, as a communicator of the spirit, a language with far greater reach than anything verbal, then what is architecture if not a felt language. Further, the effectiveness of architecture in this sense is largely dependent on the lower arts have always been experienced in terms of the framework given by architecture. Architecture in Hegel's thought is the first of the arts in that it "purified the external world"(96) that is it brings an understandable

order founded of the human mind to the chaos and chance of nature. With that it prepares an environment to which sculpture, the second of the arts, may enter and the forms of architecture founded of the mind then give concentration to the new forms of sculpture. In this way the rest of the arts take architecture and give energy and individuality to its otherwise inert masses. It is a recent phenomenon that we regard painting and sculpture as being divided from architecture. Architecture is in this sense the queen of the arts and its success is dependent upon its incorporation of these arts. Morris wrote on the subject of the dependency of architecture on the lower arts and of them on it, and since the Renaissance we have marched the path of dividing them. Armed with this sense of where architecture comes from and what its parts are, we can move from there to the more pressing aspect of its full value to us, how to achieve this, and the implications of failure.

Plate 92 Carlo Scarpa: Querini
Stampalia, Venice, 1959

Plate 93 Carlo Scarpa: Brion Tomb,
Treviso, Italy, 1970-78

Plate 94 Carlo Scarpa: Museo Cas-
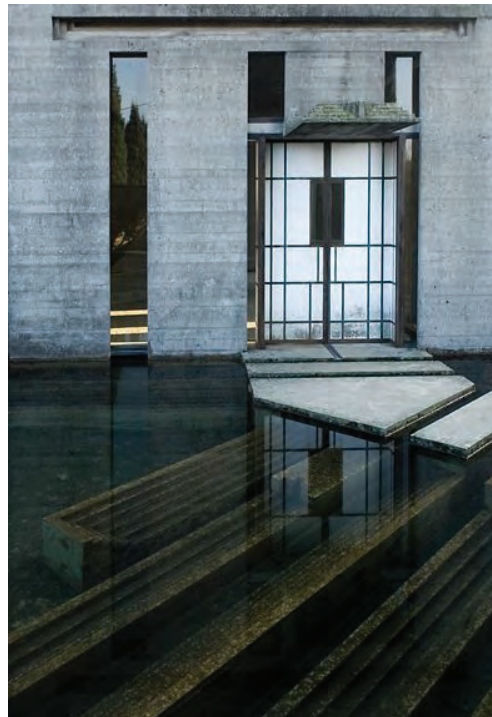telvecchio, Verona, 1958-74

Plate 95 Carlo Scarpa: Brion Tomb,
Treviso, Italy, 1970-78

Plate 96   Giancarlo de Carlo: Il Magistero Urbino, Italy, 1976

Plate 97   Giancarlo de Carlo: Collegio del Colle, Urbino, Italy, 1966

Plate 98 Giancarlo de Carlo: Villaggio Matteotti, Terni, Italy, 1969-75

Plate 99 Giancarlo de Carlo: Villaggio Matteotti, Terni, Italy, 1969-75

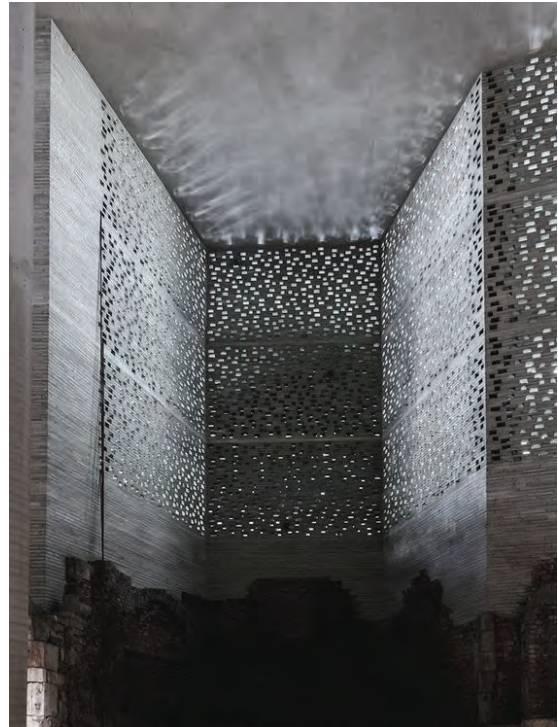**Plate 100** Peter Zumthor: Therme Vals, Graubünden, Switzerland, 1996

Plate 101 Peter Zumthor: Kolumba Museum, Cologne, Germany, 2007

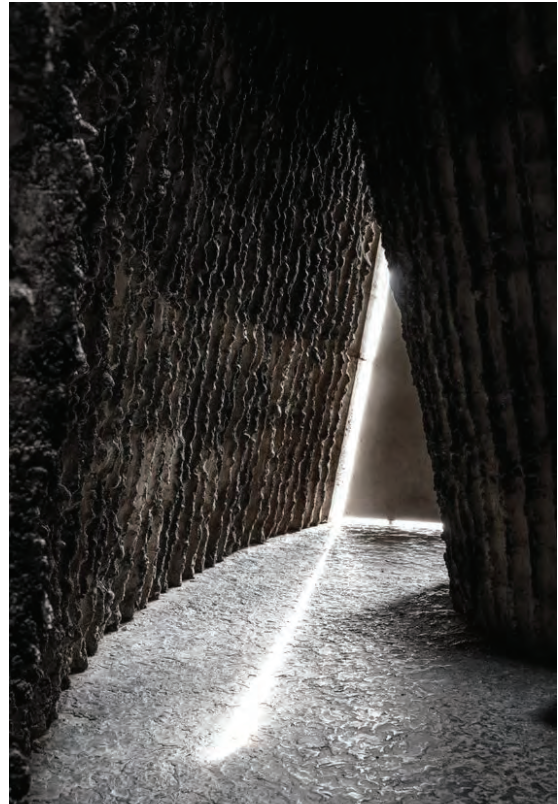**Plate 102** Peter Zumthor: Therme Vals, Graubünden, Switzerland, 1996

Plate 103 Peter Zumthor: Bruder Klaus Field Chapel, Mechernich, Germany, 2007

8
Freedom

Hegel once said that when art submits to be used for finite purposes, when it is determined by its external relations, it ceases to be real art(97). A work of architecture cannot be seen as some means to an end, an object whose meaning is defined by an external aim. This creates an environment where the labor of man is devoted to an abstract 'end' which is beyond an individual's adequate understanding. It robs the human of a real relationship with their work along with a sense of satisfaction of being a part of a living community and lonely alienation soon follows (98). When art is self determined in the same sphere as religion and philosophy, it may truly busy itself with its higher purpose as "a mode of revealing to consciousness and bringing to utterance the divine nature, the deepest interests of humanity, and the most comprehensive truths of the mind"(99) in the words of Hegel. Art in this state becomes the key to understanding the hearts of a nation and people, their wisdom and their ideas. Art reveals a higher reality born of the mind and possesses the ability to liberate us from the deception and lower order of this deeply flawed world. In Plato's philosophy, the truest reality is that of the mind and through art we can either reveal and communicate it or ignore it and shut out people from a deeper dialogue with one another. Art then is a pillar in humanity's pursuit of truth alongside philosophy, which relies on a purely conceptual pursuit of truth, and religion, which relies on representations of faith to aid in self understanding. Art reveals this truth through sensuous means and as such is the most accessible of the pillars.

Perhaps to understand this better we should look to the tendencies of artists that started at the turn of the last century. Art turned to abstracted geometric content owing to the rise of photography with the assertion that since cameras give us flawless pictures of what is then there was no more need for artists to paint the world. This I think demonstrates extreme and profound ignorance on the part of artists as to what their role even is and because of this they turned to simply producing what they thought people would buy. In order to fulfill its basic purpose, art must not be considered as a commodity or as some tool, it must be free.

When we look to the current practice of architecture do we see freedom? Perhaps to open up the issue we should consider the trajectory of architectural practice in relation to digital design as this represents the furthest extreme of current practice.

In digital or parametric design we find a drive for complexity. This pursued through biological models, emergent behavior, randomness,etc alongside mechanized fabrication techniques. The goal, and indeed the inevitable result of this drive is formal perfection, and in that perfection there is no room for interpretation or creative use, it can only create inert objects. There is no value inherent to a form, to complexity, or even to simplicity, the only way of evaluating value is in terms of the human. Currently we are more or less isolated to using computing to conceive of outlandish forms in an ongoing game of one upmanship internal to the profession. More often than not these forms fall into the trap that the vacuum of the computer presents and operate without regard to landscape, history, or any context at all. They turn to visual novelty in order to achieve an effect but it is nothing more than a game, a spiritless form that fails to speak to any deeper human motivations and thus falls short as an authentic expression of culture or of our mental reality. Now with the rapid expansion of 3d printing, architects are gaining the tools to expand this digital practice in the name of achieving greater complexity. Setting aside the obvious doubt of whether the world needs any more complexity, I would reiterate that there is no value inherent to it, only the novelty and false authority that we currently give to machine made objects.

Look to the utopian city visions that we concoct at present (plate 104-107). What do we see in these? Sheer vacuity. Grand formal gestures, flowing facades, bizarre shapes, and always with a at least a few trees growing out of the side of the building just so you know it is in fact environmentally friendly. Peer past the mountains of such distractions though and what you see are normal floor plates and the same clean white rooms we are so used to. They neither provide the possibility for individuality nor for community. They deny any possible public life for the architecture and turn the street into a lifeless artifact just as their predecessors. There is no reason for any of these formal arrangements to exist, other than to distract and to give the illusion of some sort of progress. Whatever forms they spit out to surround it with, the problems of life and the needs not just of the body but of the mind are largely ignored because what is important is the building itself and not the life that goes on within. Where some would look to these and see utopia, I see hell on earth, nondescript hives for the permanently faceless masses.

A machine may make a boundlessly complex object but such an object will inevitably remain just an object, a bauble, a spectacle, or at best a curiosity because it lacks the ability to inspire. There is nothing to the tools of its conception and making that are relatable to the human; it operates under rules outside of our sphere. We can talk about modeling the behavior of ants in building their colonies, the self-organization of cells but what does this actually give us? Human society considered as a whole is complex enough. As an outgrowth of this, architecture is already an organic idea without the need for evolutionary models to create it. Imag-

Plate 104 Urban Future Organization: *Cloud Citizens*

Plate 105 BIG Architects: *Hualien Masterplan*
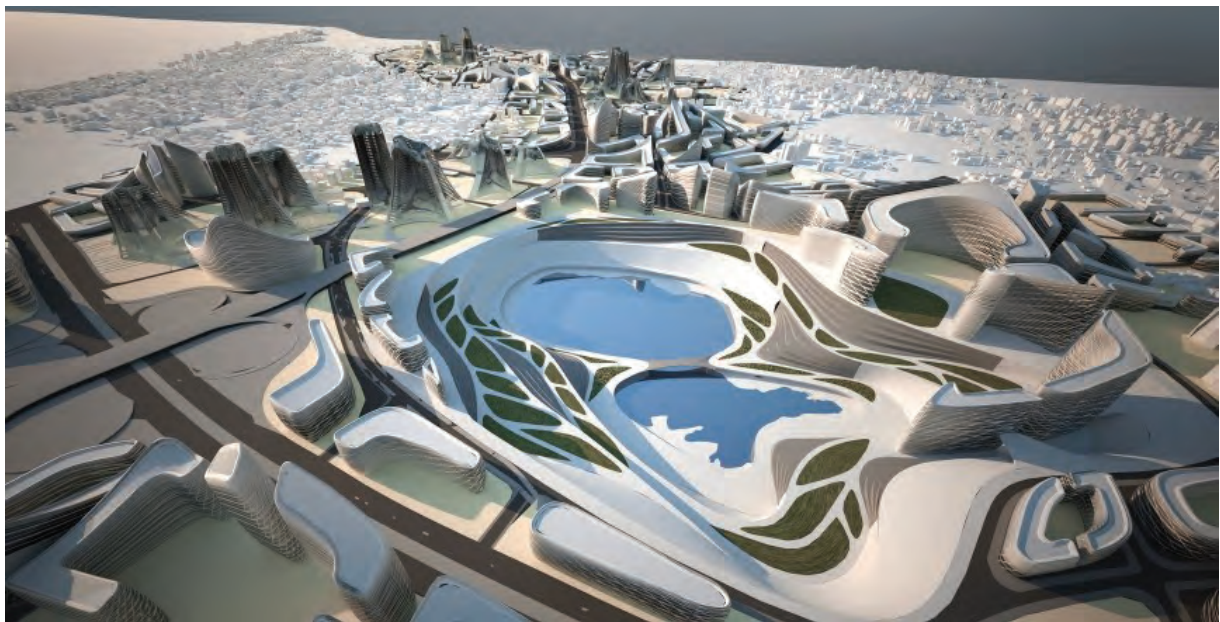
Plate 106 MAD Architects: *Shanshui City*

Plate 107 Zaha Hadid: *Kartal Masterplan*

Plate 108 Kekai Kotaki

ine for a moment a world filled with such disconnected objects, where nothing has seen the human hand. Humanity in such a scenario is reduced to the status of observer to our own environment, occupying but never owning our world. We would find ourselves trapped between meaningless gestures and mechanical efficiency. It would amount to a form of slavery being bound in what we see and how we live to unseen and unknowable rules, a gilded prison of the mind.

Digital practice need not resolve itself down to this point. There are many examples where our new tools unlock new potentials for human creative expression, the broad and growing field of digital painting being one (plate 108). The issue is when these tools are viewed as an end rather than in their proper place as a means. There is a point when the final expression of a building becomes solely an expression of the tools, where its conception as architecture is undivided from the algorithmic processes that birth it. It seems to me that the enjoyment of these objects will tend to be limited to a transient appreciation of the technical skill that went into making them rather than the architectural considerations of life. It need not be so however the current trends in our use are worrying enough that we should be very cautious in looking at their direct application to architecture.

We see two branches of thought in this tyranny, one concerned with utilitarianism (or functionalism I will use the words interchangeably) and the other wrapped up formalism. The formalistic branch is thoroughly manifested by para-

metric design and the connected pursuit of novelty.

The utilitarian branch of thought is actually not terribly dissimilar from the formalistic as far as what it produces but it is quite different in its explicit aims and so lets discuss it. The aim, such as has been floating around since the early modernists, and to a certain extent the Greeks (100), is to take the objectively observed manifestations of human behavior and then to design for those while ignoring the unpredictable subjective aspects of the human psyche. Architecture must go beyond utilitarian needs. If architecture is about the utilitarian, if we conceive of a home as being walls, a roof that will reliably stand up, shelter from the elements, and as spaces with the correct ventilation, heat, and lighting then, sad to say, there is no need for architects, now or ever, as an engineer may make such things better than an architect. To understand the need for architecture, above utilitarian concerns, we must ask, what is it that gives value to life? In a very general sense, it is creation and this may take many forms from children to high art. It is our creative efforts when directed at our own environments that are the most potent in this and that soften the terror of time. The work of the architect is to harness and give field to these energies of creation and to bring the great diversity of human creativity into harmony and focus. Architecture cannot merely concern itself with building but rather its concern is with life. This should also mark Corbusier's sentiment that the house is a tool, an operable machine, to be considered alongside the mechanical inventions of man (101) as utter nonsense. In the words of Ruskin "He is the greatest artist who has embodied, in the sum of his works, the greatest number of the greatest ideas". There is no room here for a merely mechanical approach or definition to the arts.

It is not so much that functionalism is a bad thing, far from it, it is that we have narrowed and warped our view of what it means for an object to be functional. Functionalism has been conflated with mechanistic utilitarianism as well as minimalism and come to denote a style rather than a deeper drive to make an object truly functional. In other words, when one says 'functional architecture' a very specific image will come to mind, one of white walls, "clean" lines and an open plan. When we say functional we are referring to a style, an aesthetic, such that their avoidance of ornament was in itself an ornamental act. Is this in fact functional? To answer this, think about this contemporary functionalist chair (plate 109). It is clean, simple, lightweight, and cheap so, from the standpoint of manufacturing, yes it is very functional. Now factor in the basic human behavior that it is meant to serve, sitting, and this chair allows for only a single way of sitting. It is a typical aspect of the act of sitting that we as humans like to change how we are positioned at intervals, it is uncomfortable for us to sit in one way for any length of time and yet this chair allows for only one form of use and if you deviate you will suffer. Lets say you wanted to change the angle of your back and not sit dead upright, well you would start to slide off the polished surface of the bottom. You might try and turn

Plate 109 IKEA: *SNILLE Swivel Chair*

Plate 110 Roberto Pennetta:
Armchair Concept

sideways but then the indentation in the seat would prove very uncomfortable never mind that you would have nowhere to rest your back. There is nowhere you may place your arms and so you may not lean while sitting. Take away the industrial mentality and replace it with a focus on human behavior and this chair goes from functional to nonfunctional. It is utilitarian in the way that it is concerned only with a single mode of use, and not a very good one at that, and any measure of freedom in human behavior is not something that it can tolerate. Its focus is on an aesthetic rather than the human. Formalism and 'functionalism' are then two sides of the same coin united in that their occupation is with an aesthetic. we can find all of these same issues we just outlined with formalist chairs (plate 110). They are machines for sitting or mere sculptures vaguely applying to a use to tenuously justify their existence but either way they are reduced to a single mode of operation. So it is also with architecture only where a chair concerns the acts of sitting, architecture concerns the acts of living (102).

Whether it has its root in utilitarianism or formalism, architecture is conceptualized as a whole when the user takes control of it. Perhaps the user would like to build something of their own out a window or perhaps they would like to decorate their dwelling and express their individualism to the street. This is prohibited both by the rules we put in place to govern behavior and by the architecture itself which is hostile to any such interruption in its 'harmony'. Perfection has rendered the human an alien object in a structure that he neither understands nor has any relationship to. It absorbs itself with a singular vision that manifests as clean pseudo functional forms or wild gestures. The means of living are handed down from on

high, pure geometries for the mass of human livestock to fill. Both user and builder are robbed of any creative impulse and we are left with an 'architecture' that is undeserving of the name. We reach our judgements of architecture in terms of the effect it has on our lives, on how readily it accepts our aims (103). If the architecture rejects this impulse then the human will reject it as alien. Architecture is not some pure whole to be handed down but rather it is an emergent idea that begins with the processes of life. Alvar Aalto once said: "It seems to me that there are many situations in life in which the organization is too brutal: it is the task of the architect to give life a gentler structure."(104) he also spoke of the trajectory of modernism ending in a kind of dictatorship(105). Aalto was correct and he was observing the symptoms of this fascination with the perfect.

Both of these branches broadly concern the idea of architecture as sculpture. To separate art, craft, and function in architecture is a fruitless exercise (106). To view architecture in a formalistic sense removes us to the point where we would view success in terms of purely expressive sculptural values. To sculptural architecture the fact of being inhabited is inconsequential and the standards for judging its success become artistic and self-referential. Its sole function becomes symbolic but not of any meaningful architectural values. It is artistic rather than architectural considerations that give rise to these forms, a distant vision on the part of an artist rather than real world considerations of life. To focus on function, we find ourselves in a similar cycle where our functional considerations cannot contend with the full field of what architecture requires. We are left with symbols for functionalism, sculptures of a different sort. When we look back on architecture history it is impossible to understand the architecture or its beauty without a knowledge of its utility, the technical developments allowing it, and the attitudes of the people surrounding it. The artistry and beauty of architecture stems from the life it serves in all its aspects.

We could perhaps relate to Reynolds's Eighth Discourse and the artistic pursuit of novelty, variety, and contrast. These are values in art but only when kept within certain bounds and to Reynolds this was a function of their effect on the mind. Novelty has the potential to eliminate the comfort and pleasure of familiar habits. Variety can break down the enjoyment of uniformity and repetition. Contrast can create jarring shifts in conditions that cannot be apprehended pleasurably. The point is that when taken to excess and deployed in isolation from their effects on the mind, the ultimate root of all such rules, then these values become destructive. On the subject of an artist pursuing simplicity solely for its own sake Reynolds said:

"for though he finds the world look at it with indifference or dislike, as being desti-

tute of every quality that can recreate or give pleasure to the mind, yet he consoles himself that it has simplicity, a beauty of too pure and chaste a nature to be relished by vulgar minds."(107)

Rules exist to be broken and not blindly followed. To design for the sake of designing is an empty proposition in much the same way it is empty to pursue distant extremes for their own sake. The values of architecture cannot be self referential as it is in service to the mind that we can find real justification.

How did it come to this? Perhaps from our study of history we should under-

9
Current Practice

stand that these tendencies of detached dogmatic purity lurk in the back of archi-tectural consciousness and every time we have purged them they come back later stronger than before. We cannot really say why this happened but we can talk about why this state of affairs persists. Lets endeavor to drag our current demons into the light for examination. Foremost is the obsession with perfection endemic to the practice of architecture the pursuit of which manifests in certain ways of designing and patterns of thought. There are I think three aspects that we can discuss.

Control

Control is something that needs to be addressed and to do this, we must affirm that an architect is not the absolute master of every little piece of a building. If the architect tries to be this then the result will be a loss of pieces, the architecture will necessarily be bland because the forced control will turn it into a homogeneous and bare piece. It takes a work of architecture from being a reflection of a society to being a reflection of an architect's ego. It seems that the ideal position for an archi-tect is as the conductor is to the orchestra: the architect is the harmonizing influ-ence that brings individual effort and creativity into concurrence with its fellows. Cooperation between architects then is mostly pointless with a far more fruitful creative partnership to be found by working with craftsmen, masons, builders, engi-neers, etc. To push the analogy consider a situation where there is no orchestra and the conductor is simply directing so much air. This is approximately the situation we are in now where it is just the architect making grand gestures in the air. It is not so much a cooperation to do the work of the architect, it is cooperation in the cause of creating the architecture. Consider brickwork of any notable character (plate 111), whether it is the basic bonding patterns or something more freeform (plate 112). Do we suppose that an architect is responsible for these? It would be foolish to think the architect considered the placement of every brick. This work is the product of a craftsman focusing with his mind and hands to solve a particular problem. Since our craftsman is not a machine, he will further employ his imagination in the task and engage himself to find a new way of doing it, if nothing else to keep from being bored. The architect, when faced with such a problem, and one can look around today and see infinite examples verifying this, will deploy the most basic or

Plate 111 Ducal Palace, Urbino, Italy, 1454

Plate 112

the laziest way. This is for the simple reason that the architect has other problems to then address and cannot commit to one such problem to the point of creating a truly interesting solution. We must reach a conception of a building as being formed of many pieces which are the product of many minds and the work of the architect is to bring this freedom of the hand and mind into cooperative harmony. Some distant vision of the architect must not be allowed to overwhelm the lower work.

This further points to an idea that dates from Vitruvius that an architect has to have a functioning knowledge of all the fields that this profession touches. If an architect does not have some understanding of all a building's parts and processes then there will be areas that he cannot touch and in that moment the scope of the architect is something less than the whole and chaos will ensue. The architect has to have knowledge to allow him to touch all the fields he works with but this should also come with the knowledge that a building formed of a single mind will at best be sculptural. Further, architecture in this state loses its relevance, it becomes a toy, and plaything of the moneyed classes, and at worst it becomes an oppressive monument to a distant mind slaved to the fleeting whims of fashion. There has to a surrender of control, a respect for the lower arts and for the craft of building and of making that goes into a building. When this happens it will not just be a single mind considering architecture in a vacuum, but many minds focused and united as individuals in solving physical and human problems at multiple scales while in harmonious community with one another and this is the root of invention and authentic cultural growth. The task of creating architecture cannot simply be a game played by architects.

Collaboration

There is an ongoing fascination with collaboration and design by committee in all areas of business and education but it has infected architectural practice and so must be addressed. The idea is that collaboration lends itself to innovation and to creativity but is it really so? First, consider the situation of a team of people that are tasked with putting their heads together to come up with an idea for a house. The conception is that since multiple minds are on the problem they will produce a better, more innovative idea, but this does not work out. They have to find common ground in understanding so the group will first look to existing ideas and then incrementally modify them (108). A group forces social conformity. Because its members will attempt to mimic others opinions in order to avoid social rejection, the result is a form of groupthink. This is also reinforced by the fact that a group will have greater confidence in their ideas and will be prone to reject outside information as a result rather than challenging the idea. This conformity will pro-

duce ideas that are safe, both because the group as a whole will not take the risks necessary for real innovation and because the only way to form consensus is by using existing examples of a house. "A great building must begin with the immeasurable, must go through measurable means when it is being designed, and in the end must be unmeasured,"(109) in the words of Louis Kahn but collaboration forces the beginning to be measurable and the end to be predictable. The final result will be a rehash of an existing idea rather than a new idea because unlike an individual, a group does not have the capacity to wander into the darkness and see what it will find. We should affirm one truth, that the inventions of man be they mechanical or artistic were first and foremost the product of an individual mind.

A second issue is that as soon as you create a group, you have people that are forced to focus on social issues, on dealing with the group, rather than the problem at hand. Solitude becomes a creative catalyst as it allows a mind to focus on a problem. In the words of Picasso, "Without great solitude, no serious work is possible"(110). Historically you will find this sentiment and psychological research points to creativity being the product of a solitary mind overcoming a problem in silence.

This is to say nothing of cooperation. If there is no value in two architects trying to come to an idea--Louis Kahn likened this to two painters working on a single portrait--then there is still a great deal of value in cooperation. Even when we acknowledge that ideas come out of solitary work, this is to say nothing of the process of coming out of solitude and testing these ideas against other minds. The product of the individual can be strengthened through cooperation if not by collaboration.

We have the worst variety of collaboration in architecture. Its ongoing insular collaboration means that ideas are not meaningfully challenged. We look to the profession and can see an endless mass of academics winking at one another over their papers. Ideas are reaffirmed and strengthened in an unending circular cycle with little in the way of external thought allowed in to break the false consensus. This, I believe, is why the profession continues to operate on such a dubious intellectual basis and stray so far from its own purpose.

Alienation

Architecture is a physical thing and above this it is a consequential thing. It is not something that floats alone in the void but effects environments and people. Yet we find ourselves in a situation where the architectural object is something that is conceived in the void. Architectural practice seems to have succumbed to confusion and I think this is merely the inevitable state of a profession that has lost sight of its
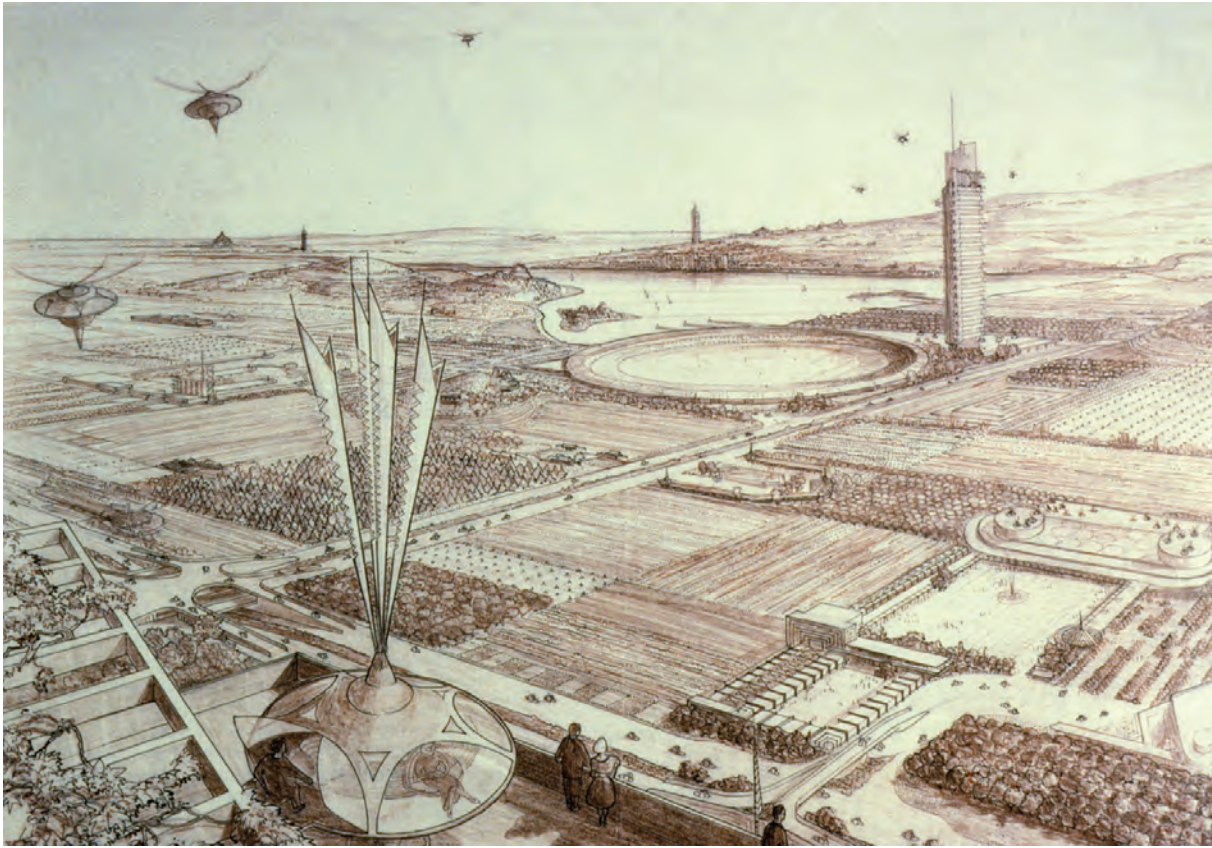
Plate 113 Frank Lloyd Wright: *Broadacre City,* 1932

impact. This state of alienation comes from and manifests in two primary ways.

One is the state of architecture as it is conceived apart from any material reality. We can look to much of current architecture and wonder, what is it responding to? We find so much that is at odds with the social and material aspects of place that we might be puzzled as to where it came from. The answer is reasonably simple, the digital sphere is the one place where one can make without thought to why. The place where there is no context, human or otherwise, just an endless void to which you may add your singular vision. Even the phenomenon of the digitized line with all its definiteness stands at odds to material reality. Straight lines are something in opposition of human and material reality, a symbol for the ongoing efforts of architects to sterilize life. I have seen so many projects that laid claim to designing around the landscape but it was not the landscape they designed around but the abstracted lines representing a site. Consider as a counter example Frank Lloyd Wright's Falling Water (plate 114). In this Wright mapped out every stone and every detail of the site, he came to know it personally and intimately, and this knowledge transferred into a design that incorporated the stones, the trees, the smallest details of place. This is the generative power that physical knowledge and real world considerations brings. Yet with current architects we find a habit of work-

ing solely from the safety of the digital realm and more and more often the final result is a render rather than a physical consequential object.

The other point concerns, among other things, economy. One can consider the efforts to rebuild in the aftermath of Hurricane Katrina. The Make It Right program invited contemporary architects to design housing for a very poor neighborhood in New Orleans. What resulted was a patchwork of expensive futuristic designs with no relationship to one another or to the environment (plate 115) which has meant that they have leaked and rotted(111). We have here a neighborhood that is socially and practically nonfunctional and this is the result of an architecture that is alienated from its effects. We might further consider Broadacre city (plate 113). This introduced the basic doctrine has lead to the massive suburban problems in America and beyond which incur huge costs in infrastructure. The economic and social costs, the two are tied together, of this variety of thoughtless experimentation are huge.

Perhaps most importantly architecture requires ideals, it is the province of dreamers. This profession touches and manifests life. This suggests a duty to strive to make life better because life and the condition of humanity are not things that improve unless they are willed to improve in a broad sense. It is not enough to simply drift along doing things. Alvar Aalto in his day regarded architecture as a public service. This idea of service is a necessary one. Architectural beauty is a consequential thing but a consequence of what? This 'what' revolves around the human and this demands a rigorous critical approach if not a scientific one to raise the standards of life. The consequences of failure to reckon with the basic aspects of human nature, or rather to enter into a fight with them, are dire.

Plate 114 Frank Lloyd Wright: *Falling Water*, Pennsylvania, *US*, 1935

Plate 115 Make it Right house, New Orleans, USA, 2007

10
The Moral Question of Architecture

Architecture is unique among the arts in that humans cannot escape from its influence. Thus architecture must be thought of as a moral imperative.

It seems that the profession of architecture has forgotten what its role is, what its duty is, and, with that, how to make real architecture. Art and architecture have become self referential and turned away from their own importance and the life they serve. In the words of Juhani Pallasma "Art seems to be about works of art instead of being about the world, and architecture about buildings, not about life"(112). One may look around at the current world and see very little of particular note. Art and architecture have become the province of academics and elitists and marked by meaningless gestures, social critiques, the self conscious pursuit of emblems and novel forms, and the rehashing ideas that were manifested better by their inventors long ago. Architecture more often than not comes into being by way of an assembly line with pieces drawn from many sources and forced together into the countless soulless objects that litter our places. The drive for perfection that started long ago has resolved itself into a need for control and invention has gone by the wayside as a result. Art and architecture have become distant things in their conception, objects handed down from on high by the 'genius' artists and with that, our cities have become rigid prisons, grey mirrors through which the human wanders alone passing between and through their fellows.

When I look around today I do not see real architecture. I am uncertain of what to call these objects that now litter our cities and towns. Perhaps it is best not to name them but to simply think of them as symbols for architecture, placeholders for the real thing. I should try and loosely define what I mean when I declare an object to not be architecture. In Vitruvian thought there is a multiplicity of architectural aims. Arguably there is a similar multiplicity in what constitutes architectural failure. We might consider the present disconnect from the material world and the impossible fight against time and organic use to evoke purity, we might look to our current separation from the rest of the arts and from the human hand, we could consider the economic and environmental costs of our sprawling cities which owe their existence to modernism's nonfunctional city visions, and we could further criticize the ongoing habit for architects to act as isolated academic artists with little regard for consequences. We could more simply say that what is not architecture is that which ignores the social contract which architecture serves. There is a point

when a work comes to represent merely a single mind and operates in defiance of the lives and aims of those around it and it is here that we can determine an object to not be architecture.

Some of these creations on the formalistic side can be beautiful in and of themselves and would be rather nice as sculptural pieces to sit on desks but this does not qualify them as architecture. We can look to our buildings and pavements and see a sea of synthetic materials dressed around armatures of steel. Rooms become simple and sheer with no place for the trappings of imagination. The modern world has lost its charge of imagination, where once we were surrounded by objects of deep imaginative import, now we have nothing more than plastic forms and artificial material(113). The effects that natural objects may even have on our minds are dulled, as the imagination can no longer connect that world to our built one. Architecture affects our conscious and unconscious mind and the process of creating and experiencing it, of unfolding our fantasies, becomes, to Adrian Stokes, a struggle to overcome fear, envy, guilt and to become part of a world of objective and measured value to which the human may belong(114). If the arts are approached on their own then their objective value is questionable but when viewed in terms of the human and the human life they serve then their value becomes objective. All the trapping of all the philosophers throughout the ages become moot along with all their talk of harmony and order as these are secondary to the highest order of architecture that is the formation of a sense of self. It is the key to our forging a sense of belonging and ownership, these are the basic characteristics of home.

I have alluded to some of these concepts of finding a self in our past discussion of content and so I may be repeating myself however the consequences of these ideas demands that I restate them here in the context of the moral life. Our satisfaction as rational beings comes from the realization of the self, the formation of values and an internal logic to our acts, feelings and perceptions. To Kant we are more than a bundle of impressions, desires and beliefs (116). There is a unity that constitutes the self that is more than the sum of our mental states. We reach a knowledge of this 'transcendental unity' in terms of our interaction with the world, it is through this interaction and an increasing understanding of our thoughts and feelings that we come closer to the self. Hegel considered that we exist to bring our individuality to our own consciousness and to that of others by giving this individuality a form and 'utterance' in phenomena (113). To Hegel we realize ourselves through practical activity, by stripping the world of its 'foreignness' and impressing upon it an external reality of our inner self and we will do this even to our own bodies when we reshape the outer world to our purposes and satisfaction (127). We will push our spirit

outward to introduce an order to the world.

Life is not about simply satisfying desires but of reflection, of determining what we want, what is important, and what is desirable and judging these things on an individual determination of lasting value. We learn what has value through our social connections. In much the same way that we find ideal beauty through study, we find our judgements and values of how life should be, the Ideal as Hegel put it, through our experience of others. Our self knowledge is dependent upon a rich experience of other beings; we find ourselves in a world that bears the marks of human action and human thought(67). It is only then, when we are able to relate ourselves and our labors to the world, that we may see ourselves as more than a means to an end but as imaginative, thinking agents, acting in accordance with our own values to shape a world to our own inner will.

Without the broad communication of the spirit by means of art then we are left to wonder whether we are surrounded by thinking creatures. After all we must take others at their word that they are rational imaginative creatures since we have no physical evidence for this being the case. We do not need these monstrous servants of the purely abstract, we do not need an architecture that purports to mimic some distant external biological or mathematical reality, and we certainly do not need the artificial strictures of a dead style. We have all that we need within ourselves in human imagination, human logic, and human spirit to produce a truly organic architecture. An architecture that is both an active participant in our realization of self and a projection of that realization of all that is good and beautiful in human life. The architecture becomes a formation of our values, beliefs, and search for truth in lasting form, the apprehension of which allows us to identify ourselves as a part of a greater whole. All that is necessary is the freedom to express it.

To attempt to bind humans to an alien way of living, to impose values, becomes a form of violence, an attack on the spirit. We must be able to find ourselves in our architecture, to perceive our most loved and hated attributes united in a whole that forms an extension of the self and an exploration of which becomes an expansion and affirmation of our own spirit. William Morris in the late 1800s wondered what affects the loss of the art of architecture would have and now in the modern age we are fully privy to what this loss betokens.

As should perhaps be understood at this point, the question we have in front of us is a social one at least as much as it is an architectural one. Consider for a moment the phenomenon of the Medieval cathedral. These were pieces that could easily take more than a century to complete along with a vast amount of resources and manpower. Why then were they built? What factors caused their people to commit so thoroughly to pouring themselves into their architecture? The simple answer is that their architecture reflected them, a cathedral was more than just an

Plate 116 Ernest Flagg, Singer Building, New York, 1908

Plate 117 SOM, One Liberty Plaza , New York, 1973

object it was reflection of the town, something that the population could take pride in as an extension of themselves both in their individual efforts and as a community. Earlier I answered that it is creation that gives value to life. This is something that I wholeheartedly believe but it is only part of the story. It answers this question only when we consider the individual on their own. Humans are not alone however, we dream together, we build together, and we die together. We are social creatures which gives another aspect to the value of our lives founded in the idea of service to one another, to our people. Community, service, and sacrifice are the foundational values of functional civilization in all its aspects not least of which is art. Take a look around in the west and does one see this spirit? For my part I do not. Rather I see a disconnect, a hyper individualist state. Where there was once community, shared identity and purpose, now there is a collection individuals occasionally bouncing off one another. In our modern world the social pattern we see comes out of the human's quest for personal and economic gain. Where once we see cooperation and shared identity at the heart of human endeavor, now we have nothing but competition and egotism to drive us. Any belief and any aspiration that goes higher than the pursuit of money or status is snuffed out by the state of this world. This condition of

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disconnect and alienation is understandable. After all to the individual walking the streets, this is not their world anymore and what follows is demoralization. The value of a human and the value of culture is weighed in money, existence is reduced to numbers. Consider the Singer building (plate 116) and its replacement (plate 117) or Penn Station in New York (plate 118) as illustrations of culture, of heritage, of a society's imagination and effort that were wiped away in service to money, to numbers. It has become a lonely world where where nothing is sacred and where all effort and all that we are is weighed against economy. We no longer have the option to belong and be a part of a greater enduring entity. We struggle to find home because home is not something that can be found midst the nothingness of the mechanized pandemonium that modern values have created. Is it any surprise that nihilism grows out of this state? Not only nihilism but a reversion, a decay of the spirit of man back to the state of the natural man of Hegel. When you are alone, when you are alienated from your world, when meaning has been stripped out of human activity in favor of money, then increasingly all that matters is your own enjoyment, pleasure allows an escape, and we see humanity start to decay. Humans start once again to view the world in terms of their individual 'wants'. The very idea of beauty becomes meaningless alongside the idea of community because beauty is timeless and it is not for us to pursue this state any longer. Take away community, take away purpose, take away values and there is nothing left. The motivations and aspirations of man are reduced to animalistic greed and pleasure. These are not values that lend themselves to healthy civilization in any of its aspects artistic or otherwise.

For all of our material wealth what do we have to show for it? In the words of Geddes: "growing infinitudes of mean streets, mean houses, mean back-yards, relieved more or less by bigger ones, too often even duller still"(119). Consider this excerpt from a letter by J.R.R Tolkien:

"Hump, well! I wonder (if we survive this war) if there will be any niche, even sufferance, left for reactionary back numbers like me and you. The bigger things get the smaller and duller or flatter the globe gets. It is getting to be all one blasted little provincial suburb. When they have introduced American sanitation, morale-pep, feminism, and mass production throughout the Near East, Middle Eat, Far East, U.S.S.R., Hither Further and Inner Mumbo-land, Gondhwanaland, Lhasa, and the villages of darkest Berkshire, how happy we shall be. At any rate it ought to cut down on travel. There will be nowhere to go. So people will (I opine) go all the faster. Collie Knox says 1/8 of the world's population speaks 'English', and that is the biggest language group. If true, damn shame-say I. May the curse of Babel strike all their tongues till they can only say 'baa baa'. It would mean much the same. I think I shall have to refuse to speak anything but Old Mercian"

Plate 118 McKim, Mead, and White: Pennsylvania Station, New York, 1910

-Letter to Christopher Tolkien, December 9 1943

For all our modern opportunities in leisure and consumption we find ourselves impoverished, the ever expanding markets do not translate into a real quality of life. We are beset on all sides by slums, some more dressed up than others (plate 119) but slums no less. Real economy and real progress of life has been snuffed out by the ever expanding appetite of finance and the consequent mismanagement of national resources towards wasteful consumption. As Ruskin put it: "there is no wealth but life" real wealth is not measured in terms of numbers but rather the character and capacity of a people and their dedication to one another, as these are the virtues that drive human progress. The only possession worth speaking about that we may have is found in people and community and we have lost it.

Architecture has contributed in no small way to this state of affairs, but it isn't enough to say that because, while architecture has a role in setting the con-

Plate 119 Zaha Hadid, apartment building, West Chelsea, New York

sciousness of a people, it is also a creation of this consciousness. Architecture will necessarily reflect the spirit of a community and people just as much as it builds it, people and architecture, human and culture, these are objects that are inextricably bound together. How do we go about reaching the art of architecture again? If I were to bring such ideas before a client they would likely ask "What's in it for me?" and what would follow is the usual formula of drawing out the maximum square footage for the minimum price for a structure that would last fifty years max. I am not advocating for extravagant, expensive, over the top, or pretentious architecture, quite the opposite in fact. What I am after in a word is freedom. An architecture that truly belongs to its place and to its people. An architecture that does not content itself with just answering the needs of living but one that seeks to enrich life, to open new possibilities, and to give a field of expression to the boundless capacities of the human imagination and spirit. It is not enough look for an architecture that responds to a social environment because architecture creates this environment. Architecture can make physical and knowable a dream of what our environment could be like if our social structure changed (120). Relatively small efforts on the part of the architect can create a feedback of transformation, a new Idea, and lead people to a new way of life. Without a sense of community, a consciousness of ourselves as individuals that are part of a whole, then we will never have the spirit that provides real architecture in any kind of scale. This attachment to one another can only occur when we deeply understand one another and this will only happen when the creative impulse is manifested. This community this sense of self must be built, or rather rebuilt, and architects may help or hinder this process but regardless

of what architects do, this state of alienation will not and cannot last. The shackles that have been placed on the minds of men will break eventually the only question is what role architects will have. Culture and architecture, the real variety that is, these are things that do not simply fall out of the sky nor are they passed down by a benevolent god or distant sage but rather grow from a population and one way or another the tyranny of this age will end. The task of seeing this come about is a question of survival for this profession and the key to restoring dignity and credibility to architecture.

The ongoing march of technology has given us a rare gift, or possibly a curse depending on how we approach it, in automation. In the coming decades we will see a situation where automation has put half of the population out of a job by no fault of their own. We will no longer need people working assembly lines, farming, and driving trucks even white collar work in law and medicine will disappear. This offers either an unprecedented economic catastrophe or a great opportunity. We will need to rethink what we view as productivity. We could view it as a point of making labor obsolete but this would strip away the last bastion of meaning in modern society where we can take pride in what we do. We can rethink productive labor and to bring creative enterprise into prominence, we can create a world where everyone may lay hands on their environment. Take away this labor, effort, struggle, and life becomes altogether meaningless. We lose the ability to imprint on the world and simply live as grazing cattle. We must be wary then of automation and letting it go too far, we can automate our production of goods, our food, and our transport and lose nothing but meaningless toil. As soon as we surrender our environment and our creativity to the machine is the moment we enslave ourselves and resolve to fully degrade to a natural state. If we cross this threshold then we are finished as a species. We would have destroyed the dream and there would be nothing more for us but to endlessly consume as slaves to desire.

The other side of this is that we can turn tech to work for us and create a system that allows us to take advantage of these tools. It offers us freedom from the demands of the assembly line, the drudgery of all the dull meaningless work humanity has dreamed of ridding itself of for millennia. It offers us the opportunity to create a new world, not some bright, clean, and regular utopia such as architects have envisioned for centuries but a world founded in the great diversity of human minds brought into harmony with the natural world. A place where the imagination may rule instead of money and the physical world then can be brought to be a closer approximation of the dream and the imagined life. In one of life's funny ironies, the machine hands us an opportunity to undo the mechanization of the world and to instead go about the business of humanizing it.

11
Imperfection and the Essence of Architecture

How do we fix this? What does it mean to go about the business of humanizing architecture? We are now pursuing the treacherous business of looking for an essence of architecture. We are looking to answer to the basic element that turns architecture from being about buildings to being about life.

Giancarlo de Carlo addressed it best when he called for an architecture of participation. We must narrow the gap between user, builder, and architect. Architects must make it possible for the user to imprint and creatively own their environment. Consider this student housing development in Munich (plate 120) as an example of the creative energy of users when the possibilities for expression are given.

This does not necessarily mean the architect is to bow down and give the user what they want. This would be in itself a dereliction of responsibility: when after all have normal people ever known ahead of time what they want? The architect is responsible for looking to the future and to the bigger picture, the task of imagining how life could be within an architecture. This basic responsibility depends not so much on surrendering to the user but rather to listen, to understand, and to then make judgements with the full field of human needs in mind side by side with the users. The architect, in short, must have a finger on the pulse of society, an understanding of its people, and above all critical and intuitive imagination concerning how life could be like within a structure.

Considering that human behavior and psychological reactions can never be fully predicted, and must never be corralled, the singular solutions of functionalism and formalism are insufficient as drivers in giving us forms. People and society as a whole must not accept to live as caged animals and instead seize back the responsibility and freedom that comes from truly owning the walls they live in. The job of seeing this come to pass is both too large and too important to be left solely to architects, particularly in light of the profession's impressive failure these past centuries.

The singular concept that this points to is imperfection as the key to understanding consequential architecture. Imperfection is a quality held by life, and by the human mind. It is the essential quality of anything organic and anything that exists

Plate 120 Heinle, Wischer und Partner: olympiadorf, Munich, Germany, 1972

in a state of evolution. By its nature it softens an object and invites contemplation. Imperfection stands for true freedom, it is the key to a truly organic architecture with the capacity to grow, to change, and to be connected to the people it serves.

To open the concept of imperfection consider the question of why we like old bricks? Why do these old materials hold such a particular fascination and attachment for us? It is because they are imperfect and in their genuine imperfection one can relate to them, the hands that went into making them, and the time that they have stood.

These old materials become an extension of the human in our own imperfection, a reflection of our imagination, abilities, and faults in shaping this world to our purpose. We can understand them and in some way the material gains a soul and an expressive voice in a wider human discourse. Further, buildings and the broader built environment become extensions of us when we can identify and relate to their means of production. We can look at an old brick building and intuitively understand it's construction.

In its imperfection and intuitive relatability, such a building gains the ability to confer new meanings, to be creatively reinterpreted, and above all to inspire. It becomes a living organ of the larger human societal organism and the human is

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anything but passive in his relationship to it.

To approach the question in another way. Imagine a face, the most perfect face that you can, free from blemishes or deformities. This picture of pure perfection will vary from person to person but what we find is not something that could really be looked at. Here we find something that is either alien or divine and it is uncomfortable to try and look, you find your gaze is forced to move away. Now take this vision and introduce a mark or blemish, however minuscule, and instantly we have something to grasp and focus our attention. We go from having the face of a god to having a human in front of us and something that can be studied in all of its features because that little blemish gives us a sense of familiarity.

Plate 121

We can find a knowledge of this phenomenon of uncanny perfection in 3D printing practices today(121), mostly in ceramics and artwork (plate 121). What we find is the knowledge that people tend to shy away from perfection. It is neither something that is relatable nor something that invites contemplation. So one finds people programming deliberate mistakes into their code in order to make the result seem like a made object or a human one. This is disingenuous, however, first because what we see are neither mistakes nor imperfections as a machine can give us neither of these but only what we ask of it. Second, the effect that these 'imperfections' have is predicated upon both self-deceit and ignorance on the part of the observer. The effect that these mistakes have can only last as long as one does not have a knowledge of their origin; once this knowledge is possessed then the effect disappears and these objects cease to be of interest. The enjoyment of these objects will tend to be limited to an appreciation of the technical skill that went into making them. They bring little value to the conversation and the potential for such objects to delight is fleeting at best.

All that one may see as beautiful is considered such in relation to the mind and the higher order of a mind striving for truth (122). The perceived beauty of nature then is merely a reflection of the beauty of the mind in its imperfection. Imperfection is a natural outgrowth of human activity. The product of the hand and mind will always necessarily be an imperfect thing. The apprehension of the imperfect will be a familiar experience in its connection to the flaws in our own base nature and capacities. Consider the idea of music and of digitally produced or reproduced music. When music is played via a physical process then there are

Plate 122 Ca' d'Oro, Venice, Italy, 1428-1430

always small imperfections in the notes, slight impurities that the ear and mind can detect. Take this away with digital production and immediately something will be wrong the purity of the sounds will stand in opposition to the physical apparatus by which we detect and understand these sounds. There is a clash between our sensory and mental processes and the inputs given to them. We detect the perfection and read it as uncanny, at a some level we will find the experience alien. Just as our example of the perfect face, a perfect experience is somewhat less than desirable and less than human.

In nature as in architecture, it is the small imperfections that catch the eye and heighten awareness of one's environment and the process of its formation. Ruskin described the phenomenon in his Lamp of Life. He described how the severity of architecture may be relieved by elements derived from fleeting fancy, accident, and carelessness of measurement (123). These small mistakes bring us closer to the thoughts underlying a building, away from the sterility that absolute precision brings. Ruskin described his enjoyment of the Cathedral of Pisa with its pillars that are not vertical, its floors that have sunk to varying heights, and its leaning western wall which the builders tried to conceal as leaning. We can also find decorations flawed and distorted while being worked but instead of diminishing the

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work, these imperfections heighten it. Perhaps this conversation should be understood as a needed addition to our past one on detail. The marks of the living process for the realization of a building in its accidents can bring a greater architectural enjoyment that cannot be explained by abstract mathematics or numbers. Consider the Ca' d'Oro (plate 122). There is nothing in its grace that can be rationally explained. There is vitality to be found in this variety of imperfection and with that we should consider the ruler and the millimeter in their appropriate place as sterilizing influences. We find in the Medieval era a scorn for accuracy, they had their ideas on proportioning objects and mathematically relating objects together, however when it came down to building they permitted organic variation. They did not slave everything to measures, they allowed the happy exercise of workmanship and solved problems as they came. This quality of happy imprecise workmanship is apparent and responsible for much of the charm of the Gothic by breathing minute life into its forms.

We can find this quality in the work of Bruce Goff. Consider the Bavinger House (plate 123-124). The stone composing it was gathered and transported by the Bavingers and its central mast was salvaged from an oil rig. The house was constructed by the Bavingers over the course of five years. Goff was open to the aspect of chance and the unpredictability of found material. He also worked with an architecture that could absorb the whimsical fancies of its users.

Architecture is not a static thing and if we are to consider an object as effective architecture it must be capable of attaining a gradual life. It is an outgrowth of the energies of the human mind, hand, and imagination acting on the world. This action gives voice to the inanimate, imbues objects with a living soul of their own, and connects humanity together. Through this humans may draw out and make explicit the unseen aspects of what they are. Whether it is stone, wood, canvas, or iron, architecture, and sculpture to an extent, gain another element of life in their capacity for change. The Smithsons described the phenomenon in terms of layering (124). The continuous use of objects as they are re-purposed adds new and unexpected meanings. Recall also our description of the wall and the phenomenon that Adrian Stokes calls the sculpture of touch (plate 125).

We can consider this question of human effects from a different angle and expand the scope of our thoughts. We may say that humans are a great many things and there is little in the way of absolutes but we can state that humans live, that our lives and minds conform to the environment around us, and that we are imperfect not just in our forms but in our behavior. No two humans are the same. We are not machines, so why would we ever submit to mechanical mindset in shaping our lives.

Plate 123-124 Bruce Goff: Bavinger House, Norman, US, 1955

Plate 125 Steps in the tower of Pisa

This question becomes ever more imperative as the city becomes a larger and larger part of human life.

The base foundation of an organic city is in a social interaction guided by landscape. One could imagine a crossroads where travelers from differing areas might happen to meet. From this interaction comes a need, and there is the nucleus of the city, to solidify and serve these social interactions. If we look to a resultant city fabric we might be inclined to see it as something forbidding, at least when we consider it in plan, but it isn't when one explores it on foot. The structure of these old cities is downright intuitive and inviting to the explorer. The organic structure that we observe comes out of human to human and human to landscape interac-

tions and this forms a tangled order. The characteristics of social interactions, the nature of the topography, of the climate, and of resources, these are the drivers of the continuous life and form of the city.

Consider the old town of Edinburgh from 1745 (plate 126) or any other organic city (plate 127). We are looking at an organism. It has its broad arteries, it's capillaries, and its chambers. The biological analogy cannot be stressed enough we are looking at a sort of body with humanity as its circulating blood. Its nerves are optic cables carrying pulses of ideas and the highways and railroad are its arteries (125).

What follows from this though? As with all our questions we must place the human at the center of our thought and consider what the human gains or loses from the city.

Perhaps to understand this we should look at the modern city. We find in our modern cities objects dictated by industrial and mechanical forces. This has grown from the need to move masses of workers to their workplaces whether the factories of old or current office blocks. The utility of movement has come to dominate with broad lanes for cars, little sidewalks for pedestrians and a grid structure to facilitate efficiency. When the human steps out from their living space they immediately detach into a distracted state and move to their goal. The modern city is not a place to wander idly or for the simple enjoyment of exploration, presuming of course there is anything to discover.

We could also point to the segmented quality of the modern city. We have a strict division of the areas where we work, where we play, and where we live. Owing to this we massive clumps of housing blocks and similarly large areas devoted solely to commerce and leisure. human activity is put in little controlled boxes. Further, we can find the same segmented quality in social strata with the rich in their own, usually gated, clumps of housing and the poor in their own designated neighbor-hoods. The possibilities for constructive interaction between activities and ideas are cut off. Purpose has overwhelmed the city and fractured it into small, tidy, and easily monetized pieces.

The primary value of a city is founded in its diverse qualities as they are connected to its lived experience. Social groupings, economic activity, and layered built spaces combine in an unstable and dynamic fashion to give a dense fabric of meanings and possibilities(126). The city, as a work of architecture, is not a tidy object. The physical structure of our spaces both guides and informs our social interactions. The organic city in its chaotic structure allows unexpected and unfamil-iar interactions as well as serving the irrational elements of human behavior, play as Quentin Stevens puts it (127). Consider the organic city in terms of the dream. We find layer upon layer of old and new jumbled together without control, the symbols and structural memory of an entire culture (128). A resident in our city must view

Plate 126 Edinburgh old town, 1742

Plate 127 Marrakech, Morocco

themselves as part of an enduring entity, they have the evidence all around them. From there it is for them to enjoy and remember, to create anew with past and present values brought to keen awareness. The very disorder of this city fosters creativity that may only come from being confronted with an overwhelming multitude of meanings.

We might further consider this in terms of the Smithson's discussion on territory (129). In describing an organic city and its spaces we are not in fact talking about things that are imprecise or unplanned. It is a composition of very precise, purposeful, and, with that, small spaces. The possibilities of these spaces lies in the fact that they were made for the people that would use them in a specific manner without the broad strokes that characterize the, often unused, green spaces and standardized slums (130) we find today. The specific nature of the spaces and the diverse quality of a fabric of them lends itself to varying qualities of privacy, light, etc. We will then find, when they are open to such interaction and pleasant to the senses, that such spaces invite humans to appropriate them to use them in often unexpected ways. The Smithsons described Urbino with children at play around its piazza, kite flying on its citadel, and youths kissing on the duke's private ramp.

We can understand imperfection in pertaining not just to how we react to objects but in how we operate socially at a large scale.

An imperfect object does not mind being used in different ways, it does not mind being changed, and it does not mind being added to. It is an object permanently awaiting its full realization and in any moment it is both complete and incomplete as with any evolving organism. By its nature imperfection invites contemplation of new possibilities and thus it is catalyst for human creativity. Perhaps you would like to place a window in a strange spot in a wall or perhaps you would like to decorate the wall to suit your mood. If the wall is imperfect you may do all these things and more because imperfection is synonymous with freedom. Its basic nature stokes the intellectual and creative energies of the population it serves and it becomes more than just an object. Architecture in this state can return to its proper place as a reflection of our living spirit.

12
Summary and Conclusion

I have attempted to broadly explore the roots of architecture as an art. In this attempt we have tapped into a varied basis of knowledge and the thoughts of artists, architects, and philosophers. We have at the end a mix of philosophy and practical theory.

We began our first chapter and search for the source with history. Our interest was not in in the concrete objects nor an exploration of stylistic inclinations. The root of our concern was in how social pressures, along with thoughts and philosophies, can affect the arts. If we understand past tendencies and why they happened in relation to broader social trends then we can come closer to understanding the root of value. There are a few lessons I think we can glean from such a study. One is that there are certain cyclical tendencies within the craft of architecture, essentially a doctrinal tug and pull since the Renaissance between abstracted academic purity and naturalistic imitation. The second point is that since the Renaissance, architecture seems to have been to varying degrees, lost, and self consciously searching for an intellectual and moral basis for its own practice. This has come to a head in our times we find an architecture that is intellectually impoverished and, puzzlingly enough, proud of it. So many of the doctrines of modernism are built upon deeply incomplete reasoning or outright offensive elitism. Despite the heroic efforts of architects in the post war years, we are still stuck with these attitudes now. With this knowledge that something is wrong it came to us to define exactly what that is. We proceeded with chapter two to begin defining the problem at hand and to do this we had to look at the factors that define architecture at its core. Specifically that architecture has a purpose, that architecture cannot be understood by means of reduction, and that architecture demands the attention and engagement of humans. Equipped with this sense of what architecture is in a basic way we could move on to its deeper aspects.

In chapter three we began drawing from our discovery of Hegel's principles to come to a preliminary discussion on the value and root of art in terms of the human. Specifically we were interested in the account of the natural man and the position of art in relation to conceptual knowledge including an idea of beauty. This has further implications concerning the need for our built

environment to both bear the marks of human activity and to accept and reward human attention. Thus in chapter four we then explored for the experience of architecture. There are three primary aspects of architectural experience. The first is purely sensuous in that a significant architectural experience is multi-sensory and there is a significant tactile dimension to how we come to understand our environments. This stands at odds with the dominant focus of our time which is on the visual side of experience to the detriment of all else. The second is architectural experience in its relationship to the mind and knowledge. The process of apprehending architecture is an imaginative one. This means that the experience is open to modification by argument and reasoning. Architecture is something that is understood and experienced in a way that is unified with our concepts on the object. The third, really a subcategory of the second, concerns the temporality of architectural experience in its similarity to the experience of music. The argument goes that, like music, architecture cannot be experienced in a single moment but must be considered as a sequence of experiences across time. This means that the whole of these experiences exists solely in memory. It is the product of imaginative attention that we reach a concept of the whole.

From this new basis in experience we could then turn to explore the root of what the concrete architectural object is and what it represents in chapter five. The primary aspect of this concerns the metaphysical idea that the arts manifest a secondary world. Art and architecture are in this way a reflection of imagination and an outgrowth of yearning that translates into new ways for people to live their lives. The imagined world we create has an effect on the real world as we try and bring it to approximate the dream. From this position we tried to explain, and in some cases dismiss, other more concrete drivers of architecture.

Functionalism was considered and summarily dismissed since the many, and often contradictory, aims of architecture make it impossible to adequately determine which problems to give preference to as well as measure the effect that one's 'solution' might have. A purely rationalistic approach to architecture as a type of problem solving must operate in a grossly reductionist manner in relation to the nature of those problems which renders functionalism as both a mere style and as critically impoverished in relation to the questions of architecture.

Material is what we might consider to be the most potent driver of content. It connects to human fantasy in its base, often unconscious attributes,

and can thus give direction to our creative thoughts. Further, in its characteristics and limitations, material has historically been a major driver for architectural content with certain new forms and inventions being made possible solely by the characteristics of available material.

From here we tried to investigate other possible drivers and expressive devices in their effect on architecture and art. Time, emotions, representation, imitation, proportion, and finally detail. The latter discussion less than being a category of content in itself is more the measure of how these other elements may find expression.

With chapter six, in order to take our theory and ground it back in reality, as well as show its applicable merits, we looked to three reasonably contemporary architects in their relationship to our discussed principles. Between Carlo Scarpa, Giancarlo de Carlo, and Peter Zumthor we have to varying degrees and with varying effectiveness, a vision of where architecture comes from. Once we had more complete picture of what we were dealing with we could come to a discussion of the full value of the object in chapter seven. Hegel regarded freedom as very necessary element of art both in how it is conceived and in what it represents. The experience of freedom that the arts offer is a vital component of meaningful human life. In considering this aspect of freedom we are left to wonder whether architecture is free and the simple answer is that no it isn't. Architecture has been shackled to the twinned tyrannical ideas of formalism and utilitarianism. These reductive approaches to architecture have succeeded in flattening it to either a crude vision of mechanical and economic logic or of meaningless egoistic gestural novelty. In chapter eight we then had to try and identify why this state of affairs persists. To try and understand we looked to three trends in practice that play a part in perpetuating the destructive ideas we had discussed earlier. One is the attitude of control where the architect conceives of himself as absolute master of all parts of a building which necessarily means that the architects reach will shrink into irrelevance. The second concerns collaboration internal to the profession. Essentially there is an insular and arrogant attitude within the profession that is sustained by unproductive collaboration and leaves an undeserved confidence in highly dubious practices.

We then find ourselves with the moral question at hand in chapter nine. This concerns the enunciation of the mechanisms for finding the self and the consequences of failure. The social dynamic changes in an environment that one cannot relate to. In the modern world we see a decay in the values of man

and the degeneration of life to revolve around individuality and the pursuit of pleasure. We in part owe architecture for this state of affairs, it has ignored its social contract and brought about the alienation of man simply by gross incompetence. Finally, with chapter ten we turn ourselves to the better question of how to fix our current state of affairs. How does one undo alienation and bring the human back into a constructive relationship to his material and fellows? Giancarlo de Carlo gives us some of the puzzle in his ideas concerning participation. More fundamentally we need an architecture that is consciously imperfect. This very simple concept is the key, the basic characteristic that turns an object from being an alien imposing force to a familiar welcoming one. It is the central core of a truly organic form of architecture that absorbs the happy creativity of its users with ease. Just as a child throws a stone into the water and observes the ripples he creates with satisfaction so can architecture open itself to the satisfying imprint of human imagination.

It is through its representation of human life that architecture gains its value. Beauty is evidenced by the mind in its action upon the world. The pursuit of beauty is nothing less than the pursuit of the highest capacity and ideals of the human. It comes from the free expression of the mind and body. All else, such that comes from alien places with alien aims standing at odds with human life, exists solely to be cast aside. Architecture is an expression of humanity in our urge to imprint ourselves upon the world. It connects us to one another in a rippling discourse across time and plays no small part in crafting our identity and sense of self and home. Architecture is not a passive entity in relation to us, it is a cornerstone in giving value to life. It speaks to us, tells us how to live, shows us new worlds, and whispers the thoughts and spirit of those that built it.

We can see the far reaching importance of the constructive impulse in human life. It is the primary means by which we learn, about ourselves, about the world around us, and, through the experience of this learning, others. It is through this impulse that culture grows and has meaning. Without it the arts decay and retreat into academicism and with them the life of man in its highest aspirations withers. We have also seen how the pursuit of perfection across history has necessarily placed shackles on the broad creative impulse and how this state of affairs has reached intolerable levels in our modern world.

Art is not something that exists in any meaningful way outside of everyday life. It is not the domain of academics still less the economic elite and neither does it stand for superfluous ornament to be discarded by the practical human. The end of art is a social thing and this is where its value lies not as a commodity. The material beauty of our environments, as they embody material knowledge and understanding, this is the real measure of our wealth. The renewed beauty and vigor of our environments means nothing less than an expanded understanding of ourselves and others within our social framework. The psychological value of artistic creation cannot be overstated as through it, the free exercise of creativity, we can change attitudes towards our agency in society and turn work from being an exercise in meaningless drudgery to a happy affair. This can head off the collapse of spirit at the heart of western society. We can again pick up the torch of myth and fantasy and create a physical world with a new-found spark of imagination.

This all points towards a singular duty for the architect moving forward namely to set aside all illusions of control and all elitist delusions of godhood, and to come down and join our fellow man in the dirt and muck of the real world. If we are to come back to making real architecture and real art then as a whole we should be asking the devil's question "It's pretty, but is it art?". Whether this will happen is another question, perhaps it is in human nature to value an existence as a sad king on a decaying throne over a better existence as a normal man. This step is necessary though if we are to go about the process of bringing human significance back to our world. Art cannot be allowed to remain dead and its reconstruction, the process of giving life a new affirmation of value, will mean building and exercising the happy energies of creation and intellect from the broad mass of the people. This is our greatest task and greatest opportunity of this century.

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