

Analysis to Synthesis: An Integrated Approach to Design in the Urban Environment

While a global movement electronically connects all places and cultures in a continuous time-place fusion, the opposite tendency coexists in the uprising of local cultures and expression of place. In these two forces -one a kind of expansion, the other a kind of contraction - new types of space are being formed.

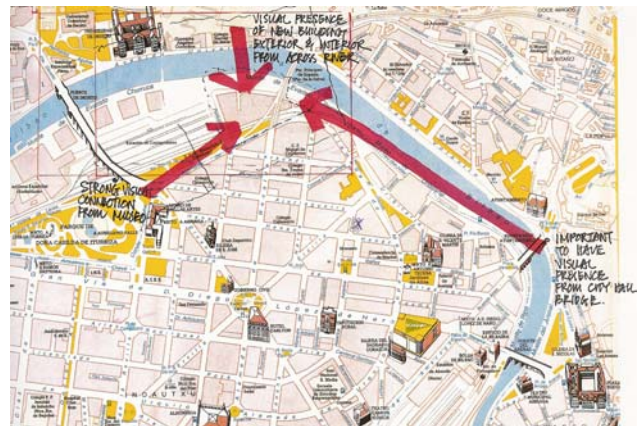
In the locus of this field of expansion and its counterpoints of contraction we can attempt a new architecture or remain victims of the nervous impulse of media and homogenization to minimize and slacken the spirit. Undirected expansion of technology leads to a soullessness, oblivious to location and individual. To simply mirror fragmenting and conflicting forces is a style of architecture for a trend in time rather than a particular program and place. **"A new architecture must be formed that is simultaneously aligned with transcultural continuity and with the poetic expression of individual situation and communities."** Steven Holl

What needs to be done to correct inhumane urban form?

Communities that are livable have strong, vibrant economies that encourage local enterprise, serve the needs of residents and promote stable employment. Livable communities also encourage economic development to increase social equity and nurture the natural environment.

A central component of the human intellect is the ability to establish connections. Connections between ideas result in a better understanding of nature. Recognizing patterns that are hidden to the casual observer is key to an architectural approach that promotes social capital.

Although we typically think of the museum that Gehry designed in Bilbao Spain it is really his genius and understanding of the City that made the final project so brilliant. He recognized that the proposed site and building was not adequate nor properly positioned within the context of the City.



Understanding Nature

"Look deep, deep into nature, and then you will understand everything better." Albert Einstein

"We do not seek to imitate nature, but rather to find the principles she uses" – Buckminster Fuller

"Don't create an object, create a site when you are working... the site will not remain the same, for your design will create a new site and a new landscape."
Mikko Heikkinen



Finnish Embassy Washington D.C. Mikko Heikkinen & Markku Komonen



What is Architecture?

For us to be able to develop a meaningful architecture we need to come to an understanding of what architecture is. Architecture as noted above has many components. The importance or hierarchy of these is often problem specific.

When we experience a great work of architecture we are not only enjoying something that provides a visual delight but generally all of our senses are being stimulated. Great works need not be monumental; in fact some of the most delightful are small and intimate reacting to circumstances in such a way as to delight. The light, acoustical quality, spatial appropriateness, finishes etc. have all been resolved with utmost care. Under careful scrutiny one often will see that the designer carried a concept without compromise from initiation of spatial definition to construction detail.

Vitruvius said it best: "*Architecture is Commodity, Firmness and Delight.*"

Ingredients of Architecture

Concept

1. A general idea derived or inferred from specific instances or occurrences.
2. Something formed in the mind; a thought or notion, a scheme or plan.
3. A broad abstract idea or a guiding principle, such as one that determines how a person or culture behaves, or how nature, reality, or events are perceived.

The concept is what the architect owns in the project. Architecture is such that through codes, context, structural systems, etc. many parts have become almost constants. It is the concept that the architect brings to the project that organizes the "constants" in a way that is unique. It is what makes the architecture.

Context

1. **The situation** within which something exists or happens, and that can help explain it.
2. **The circumstances** of events that form the environment within which something exists or takes place

"All an architect does is make spaces. It is the quiet and thoughtful arrangement of these spaces that makes houses, neighborhoods, streets and environments. Good architecture never shouts. It is like a well-mannered lady that is polite to its neighbors. The order and progression of the street is more important than the individual buildings" Hugh Newell Jacobsen

Light

1. **Energy producing brightness:** the energy producing a sensation of brightness that makes seeing possible.
2. **Quality of light:** a particular kind or quality of brightness
3. **Daylight:** the condition of brightness created by the rays of the sun during the day

"Architecture is the masterly, correct and magnificent play of masses brought together in light. Our eyes are made to see forms in light; light and shade reveal forms: cubes, cones, spheres cylinders, or pyramids are the great primary forms which light reveals to advantage." Le Corbusier



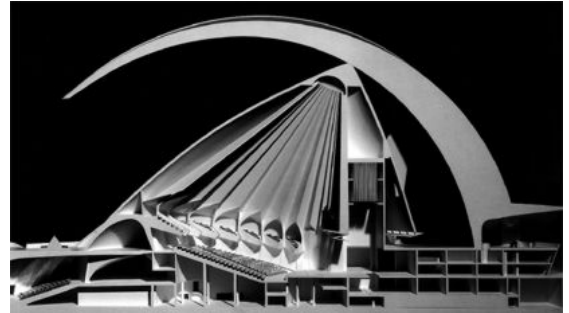
The Skin & Bones: Giving form to concept

The *skin and bones* of all animate objects are a direct response to a specific set of phenomena that the organism must overcome through time to stay viable. Whether we are talking about a jackrabbit or an oak tree the structure, skin, and other support systems form themselves and adapt to the circumstances that they will normally encounter. Architecture should be no different. In fact we can and should take our cues from nature.

The eloquence in the language of architecture is measured by how a building is put together. The joining of materials in a manner that retains the integrity of each part, while assigning a function compatible and advantageous to its nature, has always been a measure of "seriousness" in architecture. Hugh Newell Jacobsen

Structure

1. **Something built or erected:** a building, bridge, framework, or other object that has been put together from many different parts
2. **Orderly system of parts:** a system or organization made up of interrelated parts functioning as an orderly whole
3. **Way that parts link or function:** the way in which the different parts of something link or work together, or the fact of being linked together



"In understanding the world of architecture, the language of geometry is as important as the language of structure. Both are significant sources of inspiration for me, along with the properties of materials and the world of nature". Santiago Calatrava

Materiality

1. The substance used to make things
2. Relating to or consisting of solid physical matter

"To me, there are two overriding principles to be found in nature which are most appropriate for building: one is the optimal use of material; the other is the capacity of organisms to change shape, to grow, and to move." Santiago Calatrava



The Studio and Seminar

The yearlong studio and the fall seminar are intended to:

1. Help the student recognize a problem, to create a statement that shows intent to correct the problem, and then to provide the means to a successful solution
2. Help student generate and initiate a strong design concept that has a clear focus on the intent of the problem.
3. Help the student develop a design through the strength of their concept.
4. Help the student strengthen the concept through the initiation and development of the design.

Proposed Projects

Proposed projects should be urban in nature. They should be in areas that the student can either visit or have a good connection with someone who resides in the area. The problem will be solved so as to go past the normal considerations of architecture, i.e. form, materiality, etc. They must make an enhancement to the "neighborhood" they are situated in. They will provide an architectural response to a specific set of circumstances, the culmination of which will provide a relief of, or enrichment to the problem. The suggested scale of projects should be between 25,000 and 200,000 SF. It may be a new project, addition or renovation to an existing project. Any typology is acceptable with the exception of single family residential.

The Year

Spring - Acceptance

The student needs to evaluate to what level they are willing to accept the responsibility of the problem.

What can you bring to the problem?

What do you want to get out of the problem?

What time commitment can you give?

What else are you doing that can be a benefit to the project?

Summer -Analysis

Students should reconfirm their commitment to the problem.

Students should select a preliminary topic and site location, i.e. a geographical or urban setting (site analysis firmly depends on site visitation)

Students should be gathering data

What is the problem?

Why is it needed?

Who are the users?

Where is located?

What does it want to achieve?

What does the site provide?

What does the community need?

(Suggested Reading to follow)

Fall – Problem Definition - Project Book

The thesis – stating the problem

Research – from analysis to synthesis

Social issues

Cultural issues

Economical issues

Context

Site

Typology

Materiality

Program – What's it going to be?

Focused design charettes

Winter – Project Ideation

Analysis / synthesis – an ongoing process

Architectural vocabulary exploration

Conceptual design *ideas*

Giving meaning to the idea

Winter –Idea Selection

What are the pros and cons of the various solutions?

What best solves the problem?

Can ideas from one be brought forward to another to strengthen the whole?

Spring – Project Implementation

Keeping your eye on the ball

Strengthening the concept through development of the design

Putting ideas through the filter

Spring – Project Presentation and Evaluation

It will be displayed for the whole world to see and for your peers and personal critics to comment

The Journey

Field trips

Throughout the year there will be class fieldtrips to the larger urban areas in California, in particular LA, San Francisco, and San Diego. The intent of the field trip will be to visit important architectural sites and interesting architectural offices

Group discussions

Architecture needs to be put into a dialogue.

Dialogue

- 1. Formal discussion:** a formal discussion or negotiation, especially between opposing sides in a political or international context
- 2. Conversation:** talk of any kind between two or more people

During the three quarters students will be expected to initiate and participate in both formal and informal architectural conversations.

Mentoring

Each student will be responsible for getting mentors who will be willing to engage themselves in your project for the duration. These mentors can be past or present instructors, architectural employers, or other people you admire in the architectural field. At a minimum the mentors will need to make a commitment of 2 formal meetings per quarter.