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## YOKOHAMA REDUX

The occasion of the Yokohama Port Terminal competition in 1995 was a watershed for the discipline in many respects. A new generation of architects and theorists across the globe seized it as a platform to explore emerging modalities in design, design technology, and delivery which would in the ensuing decades become the medium through which and against which much of contemporary practice plays out. To understand this shift is to recognize that Yokohama elicited changes not simply in one architectural register but across almost all of the disciplinary and sub-disciplinary categories that involve the conception and practice of design.

Yokohama came at a threshold moment when design concepts submitted to the jury: from typology to historicist post modernism, to neo-modernism, to deconstruction came up against proponents of fluent geometry, topology, single surface projects, and a host of emerging design models inspired by philosophical concepts of becoming (Deleuze), complexity theory, non-linear dynamics, etc. For this new group architecture would break its venerable pact with ideality and plunge into the material world and the 'real' through alliances with disciplines as disparate yet materially rooted as structural engineering, biology, and network theory. All of this being underwritten and sustained by then emerging technologies of the digital which while not a necessarily a cause of this work certainly made it possible. Finally and crucially, for the purposes of this studio, almost all the practicing proponents of architecture as a speculative discipline either directly or indirectly took part or had a hand in this competition; through word, influence, creative action or deed.

The disciplinary significance of this competition and the built project that ultimately emerged was remarkable in a number of ways. First the very fact that it was a competition meant that it would be possible to premiate and to realize a large scale commission based upon a speculative architectural project by an, as yet, untested partnership afterwards known as Foreign Office Architects (FOA) The work it may be argued did not emerge in a vacuum but, retrospectively, emerged in the confluence of prefiguring projects from OMA on the one hand and the architects, engineers, and theorists working in and between the Architectural Association in London and Columbia University in New York. Yokohama was exemplary because it was among the first in that period to pass the reality test from conception to implementation and in doing so redefined territories for both the speculative projects that followed and their ramifications in practice.

One of the guiding tropes from this period was the notion that architecture should involve itself in models of continuity and coherence: spatial, surface, programmatic, etc. as opposed to models of discreteness and boundedness: objects, collage, disjunction, etc. The power of continuity was that it seemed to apply to radically different approaches to architecture irrespective of ideology. So, for example, a "representational" argument for continuity like that made by FOA insisted that architecture should mirror the zeitgeist. They like Rem Koolhaas argued that since the reach of Neo-Liberal economy respects no regional or national boundaries and identities, so too must the architecture. Thus an ideological reason would govern the choice of models. There were other more formally inclined practices motivated less by rhetoric than effects who would explore the selfsame models because they opened up 'ossified formal categories' available to the disciple and offered a vastly expanded spectrum of formal and organizational possibilities. Similarly the zeitgeist arguments post 9/11, the rise of regional and religious conflicts, etc. has now shifted towards architectural concepts of boundedness, containment, channeling, bubbles (Sloterdijk), objects (Harmon), etc.

This studio will reengage Yokohama with neither nostalgia nor negativity. With the passage of twenty years the 'shake out' has occurred. Following Kipnis' exhortation that we regard the best of the last twenty years not as a history of failure (as Tafuri regarded modernism) but (given realistically what architecture is capable of affecting) a history of success. Indeed it may be argued that some of the best work being done today freely combines models of continuity with those of the discrete; the problem lies not in the models but in the obligation to justify them in purely ideological or representational terms and thus perpetuating the specious argument that continuity and discreteness are mutually opposed categories.

This studio will undertake the Yokohama Port Terminal competition twenty years out based upon the accumulated knowledge gleaned from the salient speculative projects to emerge out of the competition and the subsequent trajectory of those ideas in the field. The work will proceed in three phases. First all students will undertake a formal analysis of a significant entry in the competition. This will involve not only analysis of the project itself but immediate antecedents to the project as well. The second phase involves taking the design principles derived from the analysis and creating a design model that will become the basis for your proposal. This involves a shift from the analytical mode to the projective mode. This model will factor in subsequent developments related to that model over time as shown in projects and design research that followed. The third phase will be the deliberate introduction, at three distinct scales and using three different systems, of discrete programmatic elements into the continuous models analyzed in the previous phases. This final phase brings us to projects and problems that are actively being worked through today. As such they are open ended. Assuming you take this material as seriously as your professional colleagues your successes and failures, will be vital contributions to the field.

Selected material from the studio will be presented next year in symposia at Tokyo University and Princeton University, celebrating the 20<sup>th</sup> anniversary of the Yokohama Port Terminal Competition and in a planned publication.

## **PROGRAM**

The footprint of the site is 63m x 412m and includes the following program:

• Four shipping berths	
• Departure and arrival hall	2,000 m <sup>2</sup>
• C.I.Q (Custom, Immigration, Quarantine)	2,500 m <sup>2</sup>
• Cruise Deck	3,000 m <sup>2</sup>
• Visitors Deck	4,000 m <sup>2</sup>
• Machine rooms and storage	2,500 m <sup>2</sup>
• Parking	13,500 m <sup>2</sup>
• <b>The Tower</b>	
• Lobby	600 m <sup>2</sup>
• Port Service Center	700 m <sup>2</sup>
• Offices	8,500 m <sup>2</sup>
• <b>Osanbashi Hall</b>	2,000 m <sup>2</sup>
• <b>Restaurant / Café</b>	3,000 m <sup>2</sup>

**Total 42,300 m<sup>2</sup>**

## **ASSIGNMENTS**

### **1: CRUDE TYPES: The Original Entries**

Research the entries of the 1995 competition. Consider the constraints of footprint, section and program, as well as the deliberate reactions of each competitor, whether layered datum (FOA), shed building comprised of three hinged arches (RUR), or giant sushi (Greg Lynn). Analyzing the original entries, develop several volumetric extractions that reinterpret the projects and their principles.

## 2: THE VESSEL: The New Universal Space / Space of Ubiquitous Difference

Our initial studies will deal with the solid/void and material composition of specific masses. At this stage, the focus of the explorations will be the patterns of solid, void, color, and opacity in terms of grain, directionality, and orientation. These configurations will become the basis for further transformations that will also be evaluated relative to specific issues of building performance, ie. environmental, transparency, structure, access, and circulation.

Beginning with a reusable mold at least 32"x6"x3", we will produce a series of castings, systematically filling the mold with homogeneous or heterogeneous objects that can be removed after casting. Flexible rubber or plastic components are recommended (spaghetti balloons, inflatables, toys, etc). Each student should produce 3 castings: A repetitive system with inclusions, a completely heterogeneous system (all inclusions), and a composite of the repetitive system & the heterogeneous system.

In contrast to the classical tectonic model, where structure, glazing, infill, etc are articulated as assemblies, we will explore the development of a material assemblage or mixture which will locally assume the various roles formerly assigned to a system of tectonics (ie. structure, transparency/opacity, thermal performance etc.) As an entry into this expanded concept of solidity, we will assume that the casting media itself will not be monolithic, but a compound or mixture. This could be through the inclusion of a finer grain material into the mixture that will produce transparency, changes in color, etc. What we are after is a dynamic interaction between the void forms mentioned and the fluid medium which will calculate a fine pattern of organization as it flows around the void forms.

## 3: THE VOLUME

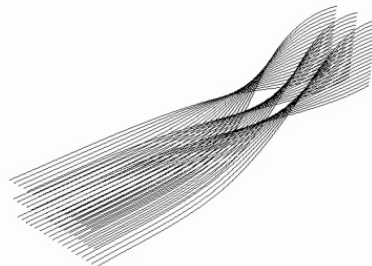
Taking the geometry of the castings as flexible systems that be deployed at various scales and to varied effect, we will apply the specific forms & logics of the castings to a thickened volume. This will entail consideration of how the systems are scaled, stacked, repeated, chopped, or combined both vertically and horizontally. As opposed to the clear-span tectonic of the volume, we will conceive of the roof, floor, and facade planes as thickened zones that may intersect and overlap to such an extent that the interior volume is expressed as full rather than empty.

## 4: TECTONIC AND STEREOTOMIC

In *The Four Elements of Architecture*, Gottfried Semper makes a radical distinction between tectonics, an architecture of parts comprising linear matrices, and stereotomy as an assembly of solid units conceived as a solid form. To this point, we have been dealing primarily with stereotomic (solid) models. Aimed at producing a different kind of composite, each model should be re-interpreted tectonically, either in full or in part. For example, some portion of the solid geometries may be maintained as a bone-like structure, while others will be imagined as frame or infill. Surface articulations and actual component divisions may widely diverge. Implicit in this shift toward tectonics are qualitative issues of materiality such as transparency/translucency, polychrome, etc. Work with the application of patterns to develop a logic that could be at once both structural and decorative. Consider three methods of deployment of a unit on you topological model:



Planar



Linear

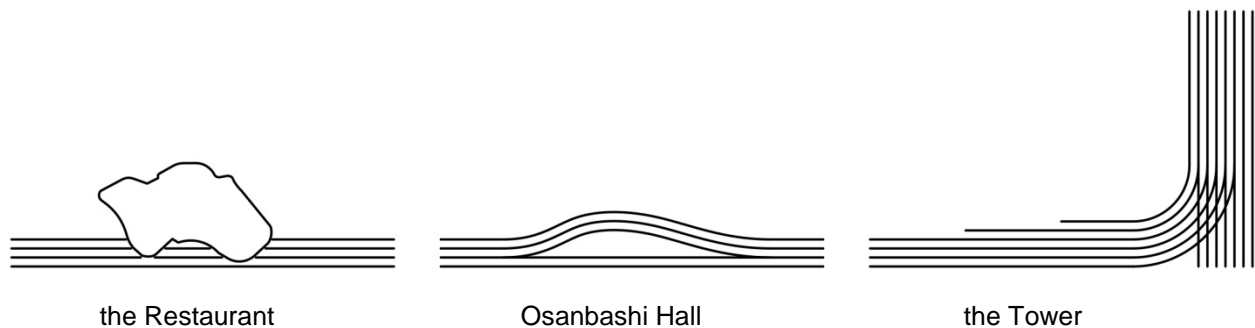


Punctual

## 5: FIGURES AND FIELDS

Three programmatic elements: the restaurant, Osanbashi Hall and the tower will be utilized to explore how discrete architectural elements may be placed into relationships with continuous systems. We will explore three types of discrete inclusions:

- The Restaurant** will be a discrete object entirely independent of the field it is deployed in (the field around it however may react with a boundary organization).
- Osanbashi Hall** will derive its objecthood from the field itself: the field will be manipulated to produce a localized singularity which will define the boundaries of the hall
- The Tower**, rivaling in scale and physical magnitude the terminal itself, may be considered a compound object sharing traits of both the discrete object and the singularity. Three elements of the building system which are typically discrete i.e. the structure, the envelope, and the floor plates may each subscribe to the aforementioned systems (a & b) while having to work together.



## 6: ACROSS SCALES

Working from the composite system, we will develop a design model across all three scales. Associated with the exploration of a model across scales is the realization that a change in scale will have both quantitative and qualitative consequences. This will likely entail shifts in the initial model as it is developed in its parallel forms. The final project will be a suite of drawings & models exploring the architectural consequences of each system, ranging from the very small to the very large.

