Design Studies for Fire Island

1. Building in Sand: Materials and Their Fabrication
2. Fire Island – Constructed from Memory
3. Five Interventions in the Town of Summer Club

CYNTHIA JARA
University of Minnesota

OVERVIEW

"Design Studies for Fire Island" was a ten-week studio problem conducted at the University of Minnesota; this studio occurred at the beginning of the third year in a four-year design sequence. According to the curriculum then in effect at our school, undergraduates and graduates working toward their first professional degree participated together in the studio.' At the time, third year was the last complete design year prior to thesis; it was viewed as an opportunity for incorporating theoretical constructs that could both broaden and deepen the students' identity as designers. The intention of this studio, generally, was to achieve that goal.

The objectives of the problem were relatively straightforward. Fire Island is a barrier island off the coast of Long Island in New York. Beginning in the 1920s, the development of seasonal resort bungalows resulted in the formation of several distinct towns throughout the length of the island. Originally unconnected and still accessible only by ferry boat, over time many of the towns have grown together in clusters.[2] The studio focused on the new town of Summer Club, a relatively unpopulated segment bordering an area of saturated development.' According to an imaginary program, the residents of Summer Club had banded together to form a land covenant.[4] These property owners were seeking help in devising a long-term strategy for community growth that would be both ecologically sound and could occur without loss to their existing "quality of life." The studio was charged with the responsibility of studying the town and proposing such a master plan.

Following an initial introduction to the location, history, and ecology of the island, the students worked in three phases. The first involved a study of "Building in Sand." Narrative methods were used in the second phase, "Fire Island — Constructed from Memory," to generate a model representing what came to be termed the "zero" condition. The "zero model" then served as the basis for the third phase in which students proposed five sequential interventions essentially defining the master plan.

Relative to the structure and mechanics of the studio, the quarter began with model-building and group discussions; the format gradually moved toward more intense cycles of board crits. During the course of the ten-week period, the students were evaluated through interim juries. Their grade for the term, however, was primarily based on their presentation to a panel of guest critics at a final, formal review of the last phase of the problem.

1. BUILDING IN SAND:
MATERIALS AND THEIR CONSTRUCTION

During the first phase of the problem, "Building in Sand: Materials and Their Construction," students studied the problem of building on the shifting topography of a barrier island. They soon discovered that factors of biology, climate, ocean physics, and ecology must be confronted before any construction could be proposed. This realization led the students to question their assumptions about the relationship between design and building.

The process was exemplified in the students' investigation of the dune bridge. Because foot traffic disturbs vegetation, setting off a cycle of erosion that ultimately threatens the existence of any barrier island, access to the beach by means of a a dune bridge is desirable.' As the students examined how such an artifact might best be fabricated, practicalities of construction such as the bridge's footing in the sand, its rise above the dune, and the landing of the stair on a shifting surface posed immediate problems whose resolution transformed their understanding of the design task. In working through the fabrication of the dune bridge, students also became aware of parallel systems of construction that are necessary to support human habitation on the island. Among these are the sea wall, harbor, and ferry dock; boardwalks, concrete paths, and driven piles which serve as foundations for the summer cottages become pertinent as one moves inland.

"Building in Sand" required students to question their assumptions and be conscious of the validity of their thinking. The element of scientific discipline is crucial: it is an indispensible lesson for the architect, who is often expected
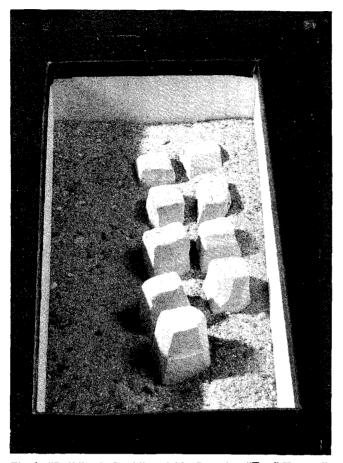
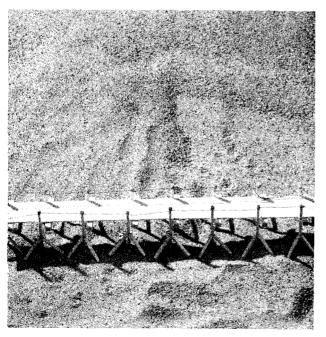Fig. 1. "Building in Sand," model by Panagiota "Tota" Kouroudi, Fall '92.

Fig. 2. "Building in Sand," model by Aki Ishida, Fall '92.

to respond to situations that are unfamiliar or unknown. At its most direct level, this phase of the problem enabled students to develop sensibilites about design relative to the
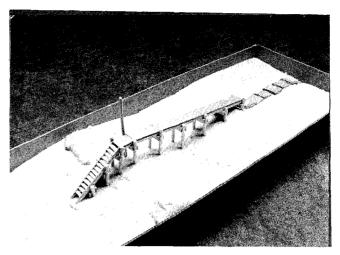

Fig. 3. "Building in Sand," model by Julie Oseid MacLeod, Fall '90 (photographed by Rob Levine).

use of materials and the pragmatics of building in an idiosyncratic environment; by sensitizing them to the importance of uncovering essential parameters through observation and experimentation, it also helped prepare them for their role as designers on a broader scale. This role was taken up in the succeeding phase.

2. FIRE ISLAND — CONSTRUCTED FROM MEMORY

In the second phase of the problem, "Fire Island — Constructed from Memory," the students were charged with developing representations of Fire Island and the town of Summer Club as it currently existed. Their work began with a typical analysis of background material — which included an aerial photograph, a USGS map, tourist information from the U.S. Park Service and National Seashore, ferry schedules, post cards, and a film shot on location at Fire Island.[6]

As studio critic and author of the design program I had been attracted by both the beauty and the romance of the island, with which I was personally familiar. Responding to pressure for development within the town of Summer Club could, I reasoned, form the basis of a provocative design problem; but I was also aware that students distanced 1,200 miles from a location they had never seen would quickly exhaust the means available for understanding and interpreting this site. Experimentation with a more classic design investigation, the reconstruction of the Laurentian villa belonging to the Roman statesmen Pliny the Younger (c. 100 AD), ultimately influenced my decision to pursue the Fire Island problem. The older study is based on a letter written by Pliny; this communication describes the layout and pleasures of the villa which has resisted efforts at archaeological discovery.' The Fire Island study differed from the problem of reconstructing Pliny's villa in three essential ways: its contemporary setting, the availability of tangible documentation — in-
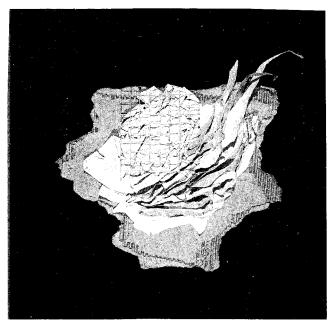
Fig. 4. "Fire Island—Constructed from Memory," model by Jane Hession, Fall '92.
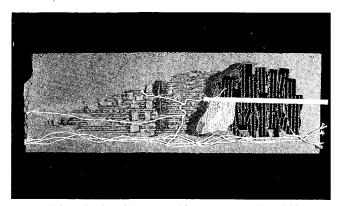

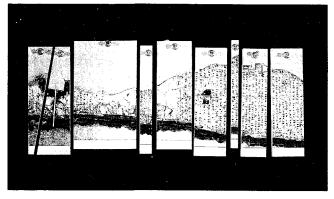Fig. 5. "Fire Island—Constructed from Memory," model by Jane Hession, Fall '92

Fig. 6. "Fire Island — Constructed from Memory," model by Deborah Duncan, Fall '92.

cluding photographic images as well as technical maps and surveys, and the interactive potential of its narrative.

The initial task of narrating Fire Island was descriptive; insofar as the information supplied was comparable to what can be gleaned from Pliny's letter, this was the point at which the contemporary study most closely paralleled the older problem. As the students engaged the narrative by representing it, however, it became increasingly apparent that the authenticity of their work was dependent on the accuracy of the narrator's memory. The possibility of bias was both called into question and enhanced through a resonating correspondence between the imagery saturating the students' models and the elaboration of the narrative being recounted. In the end, desire to gain closure on the "story" prolonged the exercise beyond the period originally intended for this phase.

3. FIVE INTERVENTIONS IN THE TOWN OF SUMMER CLUB

For the last phase of the project, "Five Interventions in the Town of Summer Club," students proposed a master plan for development of an existing community on Fire Island — the town of Summer Club. The master plan had to consist of five discrete interventions.

As a background to their proposals, students reviewed the sixteenth century plan of Pope Sixtus V for the development of Rome, as well as other historical precedents such as Biagio Rossetti's proposal for an addition to the Italian city of Ferrara.[8] Aldo Rossi's discussion of urban artifacts in *The Architecture of the City* also proved relevant.[9]

During this phase, earlier experimentation with materials and construction re-emerged as an important technological component affecting the direction of the students' work. Generally, students were encouraged to consider a range of scales and types for their interventions — including sidewalks, paths, planting, fences, gates, bridges, docks, districts, public buildings, and outdoor structures.

An unexpected result that surfaced during this phase was the critical role played by the "zero" condition. A term that developed within the studio, the "zero" condition described the representation of the site with which each student had concluded the previous phase: success in proposing an effective sequence of interventions proved dependent on each student's ability to carry over a creditable "zero model" from the previous phase. The zero condition came to be understood as a complete, summary representation of all that is known at the moment design occurs. Although the discovery of the zero model's importance was in some ways surprising, the idea of design as a process of finding or interpreting is consistent with statements made by LeCorbusier, Aldo Rossi, and Alvaro Siza, and reinforces the significance of hermeneutics as a model for design.[10]

From the "zero model," each student produced a sequence of five models, progressively incorporating the previous interventions, at a scale of 500' = 1". The final presentation included a 100' = 1" scale plan with sections and a model. Students were encouraged to depict individual interventions at scales of 50' = 1", 20' = 1", and 10' = 1" — thus bringing the problem full circle through its return to the larger-scaled studies of the first phase.

ZERO + 5

In the illustrated example, the zero model depicts the town of Summer Club in its existing state. The town is located at a point where the width of the island has begun to narrow dramatically. The shoreline along the Great South Bay is overgrown with plant material. The scattered houses of the town are organized by two concrete paths generally running from the dune towards the bay, although the second of these halts at the "Midway" — a concrete walk connecting Summer Club with the towns of Ocean Beach, Seaview, and Ocean Bay Park. "Corneille Estates,"a section of houses that are not generally visible, buffers Summer Club from the densely built town of Ocean Beach. A stretch of land that is completely undeveloped lies between the built portion of Summer Club and the residents of Robbin's Rest.

The master plan represents the accumulation of five distinct interventions. In the first intervention, the end of the Midway is marked with a sand pit; a parti-wall structure, intended to house commercial activity, is inserted along the path the Midway would have taken if extended. Some type of low-rise housing is visualized across from the parti-wall structure, on its inland side. The second intervention engages the town of Robbin's Rest; this community is invited to extend

Fig. 8. "Five Interventions"in the Town of Summer Club on Fire Island, New York. Cumulative model by Laurel Ulland, Fall '89 (photographed by Rob Levine).

one of its walkways along the inner side of the dune. Dune bridges and the platting of dune lots are included as part of this second intervention; allowance is also made for interior platting with access along the new walkway. According to the third intervention, a row of outdoor showers is inserted parallel to the dune, marking the most interior portion of the site: temporary or nomadic dwelling can be accommodated at this location. The fourth intervention involves the construction of a ferry dock that connects with the commercial zone. The fifth intervention calls for the construction of housing along the bay shore in association with a marina; this development also connects with the commercial area.

The scheme acknowledges the traditional isolation of the town through planned disjunction; at the same time, subtle connections encourage a series of complex linkages. The plan creates discrete neighborhoods within the community, allowing for development while maintaining privacy and preserving open space.

AFTERVIEW

The Fire Island study was pursued in studios I conducted in 1989, 1990, and again in 1992. According to my original plan in writing the problem, the three phases were concep-
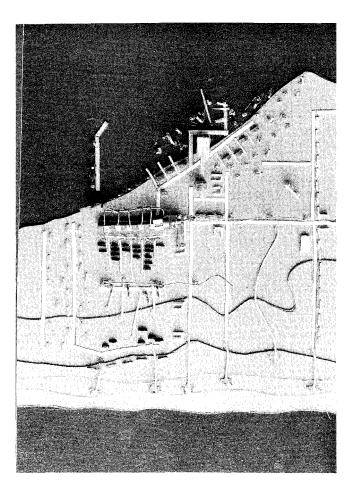

Fig. 7. The "Zero Condition" representing the existing state of the Town of Summer Club on Fire Island, New York. Project model by Laurel Ulland, Fall '89 (photographed by Rob Levine).
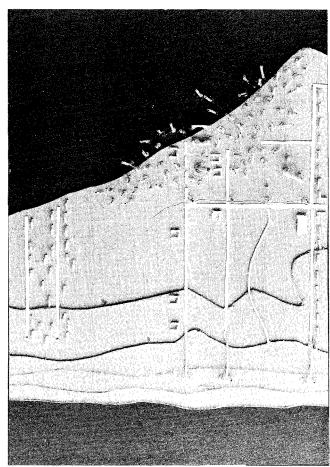
tually related. Despite its emphasis on simple structures, the first phase placed the students within a realm where their knowledge of construction had to be questioned. Through the process of inquiring how to inhabit this realm, their understanding of the relationship between design and building was altered. In the second phase, the real problems of building gave way to a fantasy world that offered students an opportunity to ponder the accessibility of imagination relative to experience. Methods governing the second phase were rooted in the classic problem of reconstructing Pliny's villa which provided a basis for comparison and evaluation. Similarly, the third phase was derived from a historic precedent, Sixtus V's Plan for Rome; nevertheless, the success of the third phase proved less dependent on an understanding of Sixtus V's techniques than on the students' earlier involvement with the "zero model." Using the zero model as a starting condition, students made design choices based on a process of discovery. Finally, in order to develop a master plan for the town of Summer Club, students returned to the practical concerns of the original phase of the problem, proposing five concrete interventions.

At the time the studios were initially taught, both memory and imagination, although recognized as important elements within the design process, were considered difficult topics for direct study. As a result, "poetic" representation was often treated as though it were magic, the product of some innate skill or talent that could not be scrutinized. By contrast, "Design Studies for Fire Island" served to demystify the elusive qualities of memory and imagination by demonstrating that the ability to conceive or recall an image and then use that image as part of a deliberate, creative strategy was a critical sensibility that could be refined and developed.

In trying to further assess the dynamics that contributed to this investigation, I am impressed by my determination to separate the students from their work. Without doubt, my intention was to force the students to relinquish their belief in their ability to control the things they design. My method was to replace the idea of control with a conversation arising between my narrative and their repesentations. Validation for this pedagogical impulse can be found in an article by Andrea Kahn entitled "Disclosure: Approaching Architecture." In the article, Kahn states: "A conversation involves letting go of expectations in order to entertain other possibilities. It requires relinquishing control."[11] Kahn goes on to say, specifically with regard to representation:

> When a drawing is considered the residuum of an already formed mental construct, or when it is regarded as the description of a construction yet to be, the possibility of utilizing drawing as a critically distinct aspect of architectural research, and interpreting it as a sufficient form of knowledge, is foreclosed.'*

Kahn's warning against "foreclosure" is apposite to my

intent in teaching the Fire Island problem. Within the context of the study, the role of narrator served to externalize a discussion that every designer must ultimately internalize. As the arbiter of memory, I was able to keep the conversation going, so to speak: my interference served to defend the autonomy of the students' creations. In the actual working through of the Fire Island problem, students were able to recognize the potential for dialogue implicit within the design process — this experience proved revelatory for many of them.

CREDITS

NOTES

1 Beginning with the academic year '94-'95, the College of Architecture and Landscape Architecture at the University of Minnesota offers a three-year M.Arch as its sole, first professional degree.
2 Following a winter of particularly severe storms, the *New York Times Magazine* (Sunday, July 11, 1993) featured a cover story on Fire Island; the island's history and a prognosis for its survival are discussed.
3 Attention was drawn to the town through the publication of a house designed by Peter Wilson for his wife, see *GA Houses* (March 1983, no. 13), pp. 146-51; also Martin Filler, "Where House and Garden Are One: Summer House, Fire Island, New York" in *House and Garden* 154 (March 1982), pp. 110-16; and "Peitzke House, Fire Island, New York" in *Architectural Record* 170 (Mid-May 1982, no. 7), pp. 75-78.
4 The town of Summer Club is in fact bound by a land covenant.
5 The students' ecological reference was a book by Bill Perry, *Discovering Fire Island: The Young Naturalist's Guide to the World of the Barrier Beach* (U.S. Department of the Interior: National Parks Service, 1978).
6 The film viewed was *Last Summer* (1969), directed by Frank Perry with Richard Thomas, Barbara Hershey, Bruce Davison, and Cathy Bums.
7 A recent French competition, won by Leon Krier, is documented along with a historical section describing proposed solutions beginning with Scamozzi: Institut Français d'Architecture, *La Laurentine et l'invention de la villa romaine* (Paris: Editions du Moniteur, 1982). Among traditional resources is Helen H. Tanzer, *The Villas of Pliny the Younger* (New York: Columbia University Press, 1924); an excellent translation of the letter occurs in William Melmoth, *The Epistles of Pliny the Younger* (Boston: Bibliophile Society, 1925), pp. 84-91.
8 In *The Architecture of the City* (Cambridge: MIT Press, 1985), pp. 124-25, Aldo Rossi praises Sigfried Giedion's account of the plan of Sixtus V, see *Space, Time and Architecture* (Cambridge: Harvard University Press, 1980), pp. 93, 96-98; an interesting comparison can be made between the diagram, p. 79, with which Giedion plots the plan and the mapped analysis by Edmund Bacon in *The Design of Cities* (New York: Penguin, 1974), pp. 130-55. Rossetti's work in Ferarra is reviewed by Christian Norberg-Schulz, *Meaning in Western Architecture* (New York: Praeger, 1975), pp. 245, 248-50.

[9] Rossi, *Architecture of the City,* p. 106 and *passim.*

[10] Compare LeCorbusier's position in *Vers une Architecture* (1923; first published in England, 1927) with Aldo Rossi, *A Scientific Autobiography* (Cambridge: *MIT,* 1981); Ken Frampton has quoted Siza as saying, "Architects don't invent anything; they transform reality," *Journal of Architectural Education 45* (July 1992, no. 4), p. 196. On hermeneutics, see Hans-Georg Gadamer, *Philosophical Hermeneutics* (Berkeley: Univ. of California, 1976), and also *Truth and Method* (New York: Continuum, 1994).

[11] Andrea Kahn, "Disclosure: Approaching Architecture," *Harvard Architectural Review* 8 (New York: Rizzoli, 1992) p. 18-19.

[12] Kahn, "Disclosure," p. 19.