

GROUND RULES: ORIENTATION & GRAVITY

PREFACE AS PRIMER

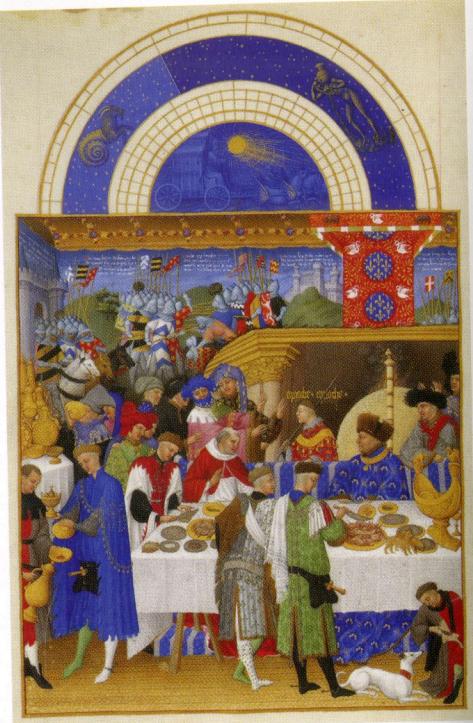
When Recurrent Dualities Become Seminal Dialogues

One of the author's favorite images, "January," the opening plate of the Duc de Berry's *Book of Seasons*, is an overburdened banquet table in one of his chateaux in 15th-century central France. The resplendent Duc presides with clergy, other nobles, a vast array of those who till the land and serve as shepherds and hunters of every manner of wild and domesticated beast. It is a parallel notation of Noah's Ark as an archaic regenerative project where topographical and archeological imaginations resonate with dialogues between citizens and strangers assembled herein in the voices of old world Brodsky and Buber, New World Saroyan and Solnit, both pairs mediated by the ever-present chorus of Raphael in his *School of Athens*. This resultant banquet table and the so called cacophony of Bruegel's *Tower of Babel* are resonated in the intense collages of the author's constructed practice and heuristic urban narratives for surveyors, nomads, and lunatics. The evolution of this project, "The Word Made Flesh"¹ can be traced from Waldman's pedagogic pre-occupation with literally and then metaphorically quarrying the earth to articulate the ground rules of architecture. This architect certifiably was infected in his adolescence by both *Genesis* and *Guernica* and considers himself a journeyman with the Sun and the Moon.

Commencing as Michael Graves's teaching assistant in 1969, in his first decade of teaching at Princeton, Waldman taught studios entirely, from foundation through thesis on the undergraduate and graduate levels. No seminars, no lecture courses were initiated, and his instructive capacities focused on weekly didactic studio assignments stressing an incremental if not linear design process based on recurrent dualities across transcultural/trans-chronological time frames. Curiously, as rigorous as this pedagogic method pretended to be, there accompanied these briefs a parallel heuristic narrative preface of lost boys and lonely dogs. Coincidentally, Waldman, son of orphaned immigrants, was reading Saroyan's *A*

Human Comedy, Tanazaki's *In Praise of Shadows*, prefaced by Saigyo's *Mirror for the Moon* as he sought to ground architecture in this New World Arcadia for his students as an on-going construction of self. This song was whispered first as *Four Strong Winds* (Ian and Sylvia) and later *Both Sides Now* (Joni Mitchell) in his pivotal pauses between Princeton and Peru, again in Cincinnati and Rice, and, finally settling down to muse, no break ground in the villa, village and vastness of Jefferson's immense imagination.

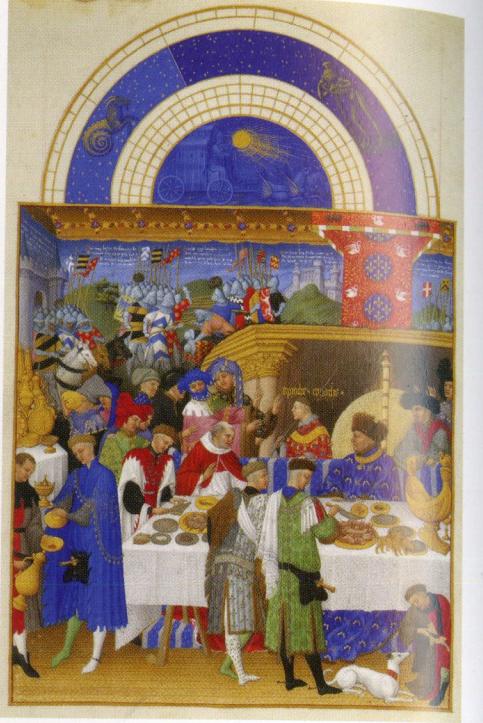
That inherited course from Graves on "Form & Composition," often renamed by students as the "Elements of Point, Line, and Plane," was a Bauhaus derived syllabus of studio exercises of hybrid accountable makings of black assertions on a stable white field to be then tensioned with speculative collages to challenge both the field and the assumed order of meter. Taught through the curiously jolted lens of cubist painting, and white on white planar models, this studio sequence had a singular reference text, a deep focus on Colin Rowe's essay "On Literal and Phenomenal Transparency."² In those early years celebrating liminal abstraction, we all delighted in the students' capacity to make abstract, if not occupy, spatial layering, curiously without scale or resonant materiality. A syntax of structure was achieved invisibly through the magic of Elmer's glue, but, for a few, we realized sunlight produced unintended manifestations. Much of the work was realized under fluorescent light late at night and the archaic program of approximating Stonehenge was not mentioned in the program briefs. The form making was sublime but without human agency. Consequently, these same students failed to inform their subsequent studio projects with their capacity to promenade through these landscapes of curtains and seemed paralyzed afloat in a totally spatial softie as if gravity and orientation were irrelevant.



Peter Waldman, at this point in Princeton's foundational curriculum, had the opportunity to reconsider this course after two years as Michael Graves moved his previous course to the final thesis year based on thematic architecture and painting. Waldman's revision took the form a didactic first the articulation of an object oriented ontology, on the secret lives distinguishing outside & inside articulated by the structural paradigms of tent, with the proposition of the dialectical megaron as a syntax of windows & windows, attics and basements. The final lesson at the time were an exercise on center and edge as the only compositional pre-requisites for individuals and groups aided only by the rod and the compass. Later, in the shadow of Jefferson's Arcadian imagination did Waldman add yet another way to begin, as "Forward and Preface: The Preconditions of the Site" visible as building as a verb, and closed down, no pausing by the escapist terms of transformation and change. The Virginia decades still attempted to articulate the ground rules for beginning made the author aware that what was not imaginable for some as J.B. Jackson's voice resonates in *The New Ruins* (1980). Herein this forward is the motivation or apology for "The Word Made Flesh".

At Princeton, from the start of this revised foundation on phenomenology in settings, a fictionalized context was also offered for the entire semester in the far off cultural cross-roads of Malta, an urban piazza haunted by St. John's Knights and Malatesta was an event space for singular monks and a myriad of misfits.





Peter Waldman, at this point in Princeton's foundational curriculum, had the opportunity to reconsider this course after two years as Michael Graves moved his previous course to the final thesis year based on thematic studies in architecture and painting. Waldman's revision took the form a didactic primer: first the articulation of an object oriented ontology, on the secret lives of buildings distinguishing outside & inside articulated by the structural paradigms of cave and tent, with the proposition of the dialectical megaron as a syntax of structure, followed by the easy pieces of architecture with incremental lectures on doors & windows, attics and basements. The final lesson at the time were a simplified exercise on center and edge as the only compositional pre-requisites for individuals and groups aided only by the rod and the compass. Later, at Virginia, in the shadow of Jefferson's Arcadian imagination did Waldman add yet another new way to begin, as "Forward and Preface: The Preconditions of the Site," rendered visible as building as a verb, and closed down, no pausing by the eschatological terms of transformation and change. The Virginia decades still attempting to articulate the ground rules for beginning made the author aware that ending is not imaginable for some as J.B. Jackson's voice resonates in *The Necessity for Ruins* (1980). Herein this forward is the motivation or apology for "The Word Made Flesh".

At Princeton, from the start of this revised foundation on phenomenological settings, a fictionalized context was also offered for the entire semester's work: the far off cultural cross-roads of Malta, an urban piazza haunted by Sigismondo Malatesta was an event space for singular monks and a myriad of magicians.

Ki's *In Praise of Shadows*, prefaced by Saigyo's *Mirror* to ground architecture in this New World Arcadia for construction of self. This song was whispered first as (and Sylvia) and later *Both Sides Now* (Joni Mitchell) in his Princeton and Peru, again in Cincinnati and Rice, and, use, no break ground in the villa, village and vastness of imagination.

Michael Graves on "Form & Composition," often renamed by students as "Point, Line, and Plane," was a Bauhaus derived series of hybrid accountable makings of black assertions to be then tensioned with speculative collages to challenge the assumed order of meter. Taught through the curiously jolted red and white on white planar models, this studio sequence was, a deep focus on Colin Rowe's essay "On Literal and Figural." In those early years celebrating liminal abstraction, students' capacity to make abstract, if not occupy, spatial scale or resonant materiality. A syntax of structure was the magic of Elmer's glue, but, for a few, we realized extended manifestations. Much of the work was realized at night and the archaic program of approximating positioned in the program briefs. The form making was an agency. Consequently, these same students failed to engage projects with their capacity to promenade through them and seemed paralyzed afloat in a totally spatial soffit which were irrelevant.

Walking in and looking out, was framed by both celestial soffits and deep, deep grottoes. This foundational studio sequence was envisioned as both a primer of easy pieces accompanied by typological narratives in his JAE 1981 essay herein, evidencing Waldman's appetite for heuristic thinking evolving in his current focus on the utility of seminal dialogues between citizens and strangers. Since these early pedagogical briefs at Princeton, they evolved into Waldman's first pedagogical project on the construction site in the Parasol House developed in his essay on Cincinnati: "Utopia," on his way to hot, humid Houston giving measure to another climatic decade now relocated to Rice. Here the seminal dialogues with students (Quilan, Rixey, and Genik) formed spatial tales of origin determined by specifications for construction.

Waldman thought of himself first as an architect who happened to teach from the lessons articulated in his constructed practice, and later evolved into a teacher seeking in his new Piedmont condition to reveal archaic ground rules of the American nomadic condition in the prismatic light the Academical Village around the campfires of surveyors, nomads and lunatics. This foreword then briefly explains the author's youthful character of pretending to be didactically precise, yet, from the start, relishing in his capacity to help students discover new territories of the imagination when one turns the project upside down and inside out. There are many characters called forth in this forward as well as over the decades but they are all imagined by the architect as the myriad of voices of this cacophonous heuristic thinker in this Whitman's "Song to Myself."



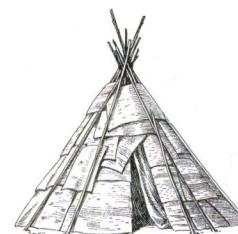
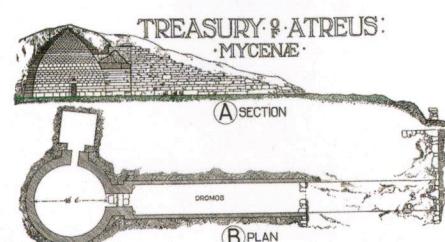
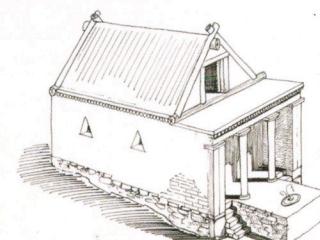
A PRIMER OF EASY PIECES (1980): Teaching through Typological Narrative

The “primer” format is associated with a step-by-step approach to elementary education. A primer is traditionally composed of two parts: a basic vocabulary and a basic grammar. Architecture can be considered as made up of a typology of “easy pieces,” and a particular “syntax of structure” might provide the basis of composing them into an “accommodating whole.” To these ends, therefore, a form primer initially served as my model for developing an approach to the fundamentals of the introductory design studios at Princeton University, 1969-1980. For a decade my interests were elemental and later with the self-conscious temporal agenda of building as a verb these benchmarks became ground rules, then foundational prioritizing gravity and the totemic vertex located deep, deep within generative basements as inaugural grottoes. The celestial soffit of the Sun and the Moon have always been there, before architecture attempted to frame them in the arcs of the Sun and the Moon the approximations of archaic Stonehenge and contemporary *Guernica*.

The exercises comprising the primer, which constituted the application of this step-by-step approach, began with the structural notion of the cave and the tent and then proceeded to establish the megaron as the model for accommodating a frictional unity, inventing the space between recurrent dualities. To this simple structural space (the megaron) projected by the students as permutations for a deliberately fictitious site on the Isle of Malta were added, in an incremental sequence, one door and then one window, one attic and one basement. Now the well and the hearth come first as an encampment for surveyors, nomads and ever-present lunatics. The idea of space was changed to place through typological elements which were made to respond, in general, not so much to program requirements but to the narrative characteristics of the actor. The actors-monks and musicians, mayors and maidens-all appeared and reappeared in these exercises in the role of the self-confident inhabitant as well as the self-conscious guest. The “Mythology of the Place”³ was reinforced in terms of the urban piazza to the north and the garden retreat to the south by considering the properties of porch and patio, façade and fence. The final exercise required a simultaneous reconsideration, a kind of minuet if you will, involving separate typological elements in an immediate and adjacent context to the School⁴ known users and for familiar tasks. The rituals of public space evolve in the final exercise into the articulation of the most routine - the passage of time.

Of Megarons

The megaron, an early Greek building type, is a particularly useful model by which to establish the notion of a syntax of structure. In a discipline which now celebrates the making of rooms, as opposed to another generation’s fascination with space, the megaron offers a provocative testament to both positions working in useful harmony. The megaron combines both the cella, a walled enclosure, with the trabeated portico, a framing system, to produce two clear zones of spatial demarcation, plus one apparently ambiguously one in-between. The



Course Website, Lessons of the Lawn. 2000

inside is private, the outside is public and, importantly, the realm-in-between is architectural, the potential place of significant spatial depth measured by what I would like to term here social narrative, or what some call heuristic thinking.

An investigation of the two systems in isolation, the wall (cave) and the frame (tent), suggests an extensive range of didactic oppositions that seem generously accommodated without compromise in the megaron model. An analytic investigation of the phenomenon of the megaron throughout history, from animistic Karnak to polemical *Maison Cook*, suggests a response to the dilemma of space and place for students today. Such a structural and spatial analysis constitutes the first priming exercise for the puzzle-like synthesis, exercises to follow.

Of Malta

Children’s fairytales begin with “long, long ago, and far, far away . . .”, at once removing the readers from the immediacy of time and place, while reconnecting their nascent consciousness with the notion of history and the value of memory, understood as arising from a distant but common heritage. The form primer is specifically and intentionally modeled after the notion of an architectural fairytale. That is, it places great value in the establishment of a distant but primal context, in a sense of time that is both ancient as well as current, and in a cast of characters all at once comfortably familiar and exotically estranged. Malta becomes the fabled isle (and the fictitious site) both removed from the immediate experience of most students but reconstructed as a “mythology of the place,”⁵ as the locus, or cross-roads of all of humankind’s most primal spatial myths.

From the program statement:

The myth of Malta is as old as the story of Noah. Because Malta is an island, humans first came ashore as a guest before they would linger as inhabitants. It has consequently developed as a quiet, deeply introverted island retreat for the native populations of the entire Mediterranean basin and recalls a long and curious history. First a pleasure garden of sorts, the only permanent settlement was founded by Aeneas with pre-Cartesian logic as a rest and recreation refuge en route to and from encounters with Dido. Years later, the Romans came to Didoville, among them Anthony and Cleopatra, and left their marks upon the city with obelisks and correspondent deep snake pits. Malta’s life and urban form were regularized along a Caesarian sense of cardinal orientations reconstructing in particular the four gates and town center to accommodate an Egyptian sensibility to the Sun in general and Cleopatra’s obsession with obelisks in particular. In the

8th century CE the young Mohammed, following Hannibal from Carthage to Sardinia reoriented himself repeatedly in and then open-ended garden after another leaving a cover again here and now. Since then, the Maltese have developed in the midst of paradise. The people of Malta have developed attitude in the institutions that reflect their social forms. How thanks to Mohammed, that all building projects have one g

Of Monks and Musicians

The idea of a continuum-in this case, a continuity of general types and particular but familiar personalities-is critical to the as fairytale. Dick and Jane and Spot are ingrained within the generations of Americans as the cast of characters of our primer. At Princeton my perennial cast were Sigismundo Malcontenta, along with ever-present Mortimer, later joined cousin Seymour Hinge. These apocryphal figures were integrated into the young designer’s mind and spirit with those of the participants to provide shelter.

In the very first exercise, a mythology of the place (context) characters (users) were identified and substantiated through exercises. Curiously at that time I had no notion of those who labored to provide resources, or those who maintained spaces and places for private individuals. Monks and musicians were the individual and the group, private acts and public responsibilities, celebration, routines and introspection, the opportunity for Above all, the concept of singular monks and multiple musicians idea for architecture for the inhabitant as well as the guest, coming in, for public places as well as private gardens, for

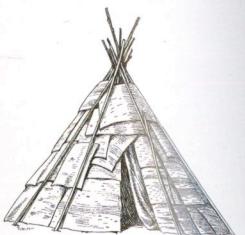
Dualism and Easy Pieces

Doors and windows, attics and basements describe the easy architecture is formed. These components constitute an ensemble of generic problems, values, and solutions which are inclusive of human themes within the disciplined reconsideration of the necessities.

From the program:

The door as threshold,
the window as frame,
the basement as the place of engagement with the earth,
and the attic as the spatial resolution (now understood)
the ceiling and the roof and describes a sheltering space beneath the sky.

These exercises permitted an awareness of not only the visual prerequisites for mass.



Lawn. 2000

importantly, the realm-in-between is
ant spatial depth measured by what I
what some call heuristic thinking.

cation, the wall (cave) and the frame
actic oppositions that seem generously
the megaron model. An analytic
megaron throughout history, from animistic
ts a response to the dilemma of space
tural and spatial analysis constitutes the
thesis, exercises to follow.

ago, and far, far away ...”, at once
of time and place, while reconnecting
n of history and the value of memory,
ommon heritage. The form primer is
the notion of an architectural fairytale.
ment of a distant but primal context, in
as current, and in a cast of characters
ally estranged. Malta becomes the
oved from the immediate experience of
iology of the place,”⁵ as the locus, or
nal spatial myths.

Noah. Because Malta is an island,
e they would linger as inhabitants.
deeply introverted island retreat for
ean basin and recalls a long and
orts, the only permanent settlement
logic as a rest and recreation refuge.
Years later, the Romans came to
tra, and left their marks upon the city
ke pits. Malta's life and urban form
of cardinal orientations reconstructing in
to accommodate an Egyptian sensibility
ssion with obelisks in particular. In the

8th century CE the young Mohammed, following Hannibal's footsteps in route from Carthage to Sardinia reoriented himself repeatedly in one walled-in court and then open-ended garden after another leaving a covenant with the world, again here and now. Since then, the Maltese have developed a citadel tradition in the midst of paradise. The people of Malta have developed a defensive, insular attitude in the institutions that reflect their social forms. However, they insist, thanks to Mohammed, that all building projects have one good window.

Of Monks and Musicians

The idea of a continuum-in this case, a continuity of generalized character types and particular but familiar personalities-is critical to the primer format as fairytale. Dick and Jane and Spot are ingrained within the memory of generations of Americans as the cast of characters of our best known reading primer. At Princeton my perennial cast were Sigismundo Malatesta and his Lady Malcontenta, along with ever-present Mortimor, later joined at Rice by a distant cousin Seymour Hinge. These apocryphal figures were intended to engage the young designer's mind and spirit with those of the participants for whom they were to provide shelter.

In the very first exercise, a mythology of the place (context) as well as a cast of characters (users) were identified and substantiated through the subsequent exercises. Curiously at that time I had no notion of those who build, those who labored to provide resources, or those who maintained spaces for public events and places for private individuals. Monks and musicians were used to identify the individual and the group, private acts and public responsibilities, ritual and celebration, routines and introspection, the opportunity for both place and space. Above all, the concept of singular monks and multiple musicians proposed the idea for architecture for the inhabitant as well as the guest, for going out as well as coming in, for public places as well as private gardens, for work as well as labor.

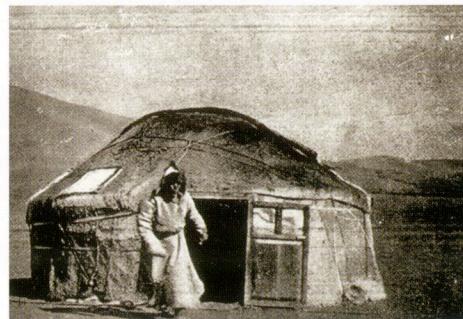
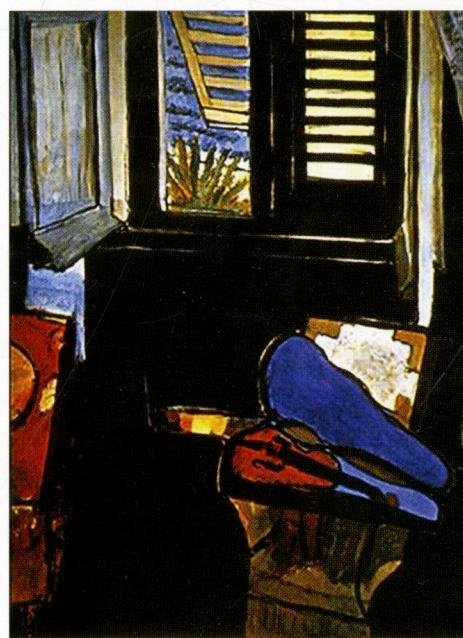
Dualism and Easy Pieces

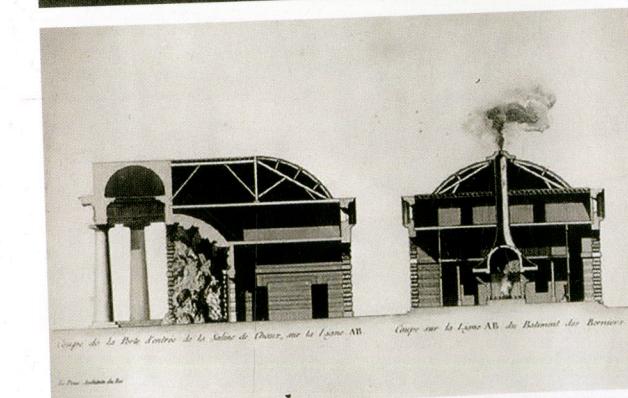
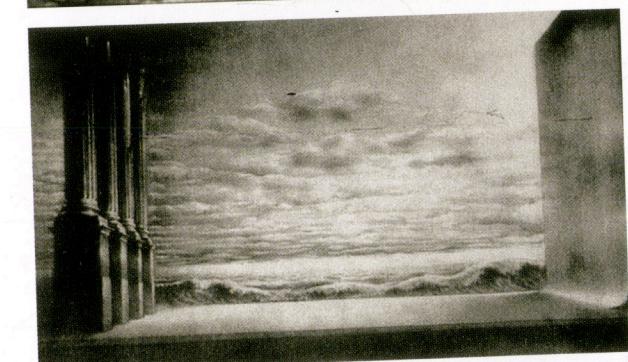
Doors and windows, attics and basements describe the *easy pieces* by which architecture is formed. These components constitute an elementary typology of generic problems, values, and solutions which are inclusive of a wide range of human themes within the disciplined reconsideration of the four sheltering necessities.

From the program:

The door as threshold,
the window as frame,
the basement as the place of engagement with the ground,
and the attic as the spatial resolution (now understood as frictional site), of
the ceiling and the roof and describes a sheltering space for hierophancy
beneath the sky.

These exercises permitted an awareness of not only the visibility of space but also the prerequisites for mass.





The specific application for this typological approach to introductory design education might be a "two-step." That is, each topical step was intended to develop a constructive understanding of our environment in terms of recurrent dualities. In philosophy, dualism is the theory that the world is ultimately composed of or explicable in terms of (a series of) two basic but interrelated entities, and in theology the doctrine that there are mutually related but juxtaposed principles in the universe.

The form primer did not pretend, of course, to be philosophical theory or theological doctrine. Rather, it offered a fundamental proposition that perhaps our constructed world might be understood more simply, appreciated more richly, and rearranged more aggressively, if conceived in terms of specific and recurrent dualities.

Each student was to understand the forces of gravity upon shelter in terms of two structural systems: the bearing wall and the frame. Subsequently, the easy pieces of architecture—the doors and the windows, the attics and the basements—were assembled to satisfy elemental human needs (as well as aspirations) for the inhabitant (as well as the guest). The more difficult issue of context was addressed in the dualism of urban street and private garden. The ultimate strategy was to understand architectural invention as occurring between dual realms and to appreciate it as presenting the conjunction itself.

Students were presented with a series of dual options intended to comprise such basic design issues as structural enclosures and site constraints. For example, structural enclosures could be thought of as gravity and the totemic vertex, the cave and the tent, the megaron and the basilica, the arch and the lintel, the vault and the frame, the membrane and the grid, the free plan and free section. User requirements were seen as characteristics of the actor, the individual and the group, rites and responsibilities, private and public, cellular and fragmented spaces. Site constraints were thought of in terms of house and garden, temple and paradise, floor and ground, symmetry and dynamic balance, scale and size.

Core Exercises

What follows is a description of four introductory puzzles and one synthetic problem that were given as a core of a series of lecture and design sessions. The lectures attempted to demonstrate the richness of experience inherent in very simple, fundamental human activities and became the models for the inclusive considerations inherent in each student exercise. The first exercise dealt with the following narrative:

Not so long ago, but very far away there was a young lad named Mortimor Philander, a second year student of architecture, who, while on summer holiday, devised a scheme to transform his uncle Sigismundo's Maltese estate, Cartesian Fields into a resort wonderland. However, Sigismundo was rather wary of young Mortimor's extravagant intentions and approved only one initial project: a tourist information center.

The tourist center is to be designed by Mortimor (the student) as one large room

20'x40' running south to north in the long direction to display concerning events, institutions, restaurants, and hotel accom

Entry is possible along the entire southern edge of the property on an urban piazza with framing obelisks; and there is a magn to the north star which all islanders place their trust in enduring darkness of night.

The first exercise or puzzle dealt with juxtaposed context. To the establishment of the aging Lady Malatesta, nee Malconte estranged wife. Immediately to the west is the house of a my maidens who perform sirenian miracles for lost sailors and sun kind of traveler's aid society.

In this ideal and tranquil setting, Sigismundo Malatesta, as lan insists on reigning over the center as chief receptionist. An ad Mortimor is the inclusion of a specific stair to permit Sigismu ascend to the flat roof terrace to survey to the north and to the reaches of his domain. Being an election year he also wishes throngs of his most loyal subjects who will gather in the piazz is that the designs presented by Mortimor should entice the i support the members of the two building trades on the island the masons and a timber column and beam framing system

Framing plans are required, with spans up to 16'-0" for 2x12 maximum cantilevers 4'-0". Composite wood/steel columns to cruciform steel joints. Three solutions were required: one v the second with framing systems; and the third the megaron eschew either-or and favor both and.

The objective of this exercise was to investigate the qualities two juxtaposed structural and spatial systems, given program the exhibition of information for anonymous groups, and an a individual can address his constituency. The juxtaposed struc stairway may be used to transform or to tension by modulat cube volume. Doors and windows are to be specified only b location for this idealized climate. Above all, students were to exercise that architecture can be made not only from the sim stair to structure, of structure to party wall, but that the two s have the potential for establishing the notion of a dialectic ba

The second exercise, or puzzle, dealt with user requirements the following heuristic sequential setting:

Hard times have fallen upon the isle of Malta. The construction center has drained the royal treasury and Sigismundo has been into a monastic order. Curiously, his monastic cell is to be his tourist center that Mortimor designed has now caused his trou Sigismundo has literally closed the non-existent doors by er south and has converted the space into a closed monk's cell use of furniture: a daybed, a table, and a myriad of veils. His three old musician friends join with him to form the Maltese

ological approach to introductory design
That is, each topical step was intended to
ing of our environment in terms of recurrent
the theory that the world is ultimately composed
s of two basic but interrelated entities, and in
e mutually related but juxtaposed principles in

of course, to be philosophical theory or
ed a fundamental proposition that perhaps our
stood more simply, appreciated more richly,
if conceived in terms of specific and recurrent

the forces of gravity upon shelter in terms of
wall and the frame. Subsequently, the easy
d the windows, the attics and the basements-
al human needs (as well as aspirations) for the
the more difficult issue of context was addressed
private garden. The ultimate strategy was
on as occurring between dual realms and to
unction itself.

series of dual options intended to comprise such
enclosures and site constraints. For example,
thought of as gravity and the totemic vertex, the
and the basilica, the arch and the lintel, the
and the grid, the free plan and free section.
characteristics of the actor, the individual and
private and public, cellular and fragmented
ight of in terms of house and garden, temple
metry and dynamic balance, scale and size.

for introductory puzzles and one synthetic
of a series of lecture and design sessions. The
the richness of experience inherent in very
es and became the models for the inclusive
udent exercise. The first exercise dealt with
“The Cave and The Tent.” It was introduced

there was a young lad named Mortimor
architecture, who, while on summer holiday,
uncle Sigismundo's Maltese estate, Cartesian
ever, Sigismundo was rather wary of young
nd approved only one initial project: a tourist

by Mortimor (the student) as one large room

20'x40' running south to north in the long direction to display information
concerning events, institutions, restaurants, and hotel accommodations. All
information is two-dimensional and is to be displayed on the 20' high party walls.

Entry is possible along the entire southern edge of the property which is centered
on an urban piazza with framing obelisks; and there is a magnificent view directly
to the north star which all islanders place their trust in enduring orientation in the
darkness of night.

The first exercise or puzzle dealt with juxtaposed context. To the east is located
the establishment of the aging Lady Malatesta, nee Malcontenta, Sigismundo's
estranged wife. Immediately to the west is the house of a myriad of Moroccan
maidens who perform sirenian miracles for lost sailors and summering students, a
kind of traveler's aid society.

In this ideal and tranquil setting, Sigismundo Malatesta, as landlord and mayor,
insists on reigning over the center as chief receptionist. An additional task for
Mortimor is the inclusion of a specific stair to permit Sigismundo Malatesta to
ascend to the flat roof terrace to survey to the north and to the south the far
reaches of his domain. Being an election year he also wishes a place to address
thronghs of his most loyal subjects who will gather in the piazza. The final condition
is that the designs presented by Mortimor should entice the interest and to
support the members of the two building trades on the island: bearing walls for
the masons and a timber column and beam framing system for the carpenters.

Framing plans are required, with spans up to 16'-0" for 2x12s 16" o.c. pemitting
maximum cantilevers 4'-0". Composite wood/steel columns 4x4s cross-bolted
to cruciform steel joints. Three solutions were required: one with bearing walls;
the second with framing systems; and the third the megaron hybrid. They learn to
eschew either-or and favor both and.

The objective of this exercise was to investigate the qualities inherent in the
two juxtaposed structural and spatial systems, given program requirements for
the exhibition of information for anonymous groups, and an arena in which an
individual can address his constituency. The juxtaposed structures and specific
stairway may be used to transform or to tension by modulating the simple double
cube volume. Doors and windows are to be specified only by structure and stair
location for this idealized climate. Above all, students were to realize in this first
exercise that architecture can be made not only from the simple relationship from
stair to structure, of structure to party wall, but that the two separate solutions
have the potential for establishing the notion of a dialectic based on type.

The second exercise, or puzzle, dealt with user requirements and was initiated by
the following heuristic sequential setting:

Hard times have fallen upon the isle of Malta. The construction of the tourist
center has drained the royal treasury and Sigismundo has been forced to flee
into a monastic order. Curiously, his monastic cell is to be his purgatory: the very
tourist center that Mortimor designed has now caused his tragic end. Now Fra.
Sigismundo has literally closed the non-existent doors by erecting a wall to the
south and has converted the space into a closed monk's cell by his most sparing
use of furniture: a daybed, a table, and a myriad of veils. However, once a week,
three old musician friends join with him to form the Maltese Chamber Group. The

three guest musicians arrive early Sunday morning by descending from Lady
Malcontenta's roof terrace down Sigi's private stair and join in prayer, practice, and
a Bacchanalian brunch followed by a short snooze suspended in singular space of
solitude in cloud like hammocks.

The objective of this puzzle was to take the resultant plan of the first exercise,
allowing the student to select one or a composite of one's previous structural
solutions, and to prepare two arrangements: one for the individual and one for the
group. In both plan arrangements the student was to accommodate the same set
of activities for each different "actor-variable." These activities involved rest, repast,
research, and recreation. Each student was to make an arrangement of places
within the given space with furniture elements in two distinct plans which satisfied
the individual and collective needs of the actors.

The arrangement for the monk was to be a connective landscape of furniture
elements with the given structurally articulated spatial bounds. That is, the furniture
elements were to have been combined in what might be described as a massive
whole or configuration with at least one of the sides of each furniture element in
contact with another such element. The arrangement for each of the musicians
was to be articulated as separate figures joined by a field condition of one banquet
table, with none of the sides of the furniture in contact across a distributive field.

The given space was to have been described as cellular and/or gridded.
Characteristics of the individual were best described as associated with the ideas
of privacy, closure, and cellular retreat. The furniture configuration was to have
consisted of a diagram of a composite linear arrangement. Characteristics of the
group were best described by those associated with celebration, communication,
openness, and gridded extension. The furniture composition of this group was to
have been a diagram of a centered and dynamic spatial arrangement.

The third exercise was introduced as follows:

Suddenly, things are looking better for monk Malatesta and the now morose
Mortimor. Two Maltese institutions have sought to sponsor some major
renovations of the former tourist center/monks' retreat. Lady Malcontenta will now
sponsor a new threshold for Sigismundo to encourage him to get out more often
and join his friends in music. Malcontenta asks Mortimor to provide the design of
three doors in one porch: one public portico to accommodate the musicians and
two private passages for re-acquaintance and renewal. Another institution, the
Maltese friends of Matisse wish to sponsor Sigismundo's real need for one good
window to the north and also asked Mortimor to coordinate his efforts on the door
to the south with the proposition of a window made in the wall to the north. Each
student was to investigate the potential characteristics and form configurations of
door and window for the cell of the monk using previous structural systems and
furniture arrangements. Dual themes, such as passage and perspective, seal and
ventilation, closure and opening, threshold and shutter, were established as the
basic characteristics of those activities associated with doors and windows. Each
student was to transform these drawings into a set of specific drawings describing
these elements as a frontal elevation and a lateral section. The intention of pairing
elevation and section for the first time in the course was to establish a sympathetic
relationship, a useful harmony, between implied spatial depth in elevation as
illusion, and the dimensional specification of massive and spatial thickness in
section as inhabitation. More precisely, the objective was to have each student

exercise a capacity to suggest depth in a shallow window frame and to suggest a flat or frontal plane in a potentially deep exterior porch. The premise behind the exercise itself was that the mode of inquiry we define as architecture implies speculative as well as productive space and mass. It was each student's task to project into the investigation of composite doors and windows the potential depth of this dual meaning.

Attics and Basements

The fourth exercise was introduced with the following narrative extending heuristic thinking later understood as the necessity of "The Word Made Flesh," as eschatological specifications for construction, or the spatial tales of origin for the city.

Recent events in Malta have produced some dramatic challenges for Malatesta. An earthquake has destroyed the ancient piazza, but the resistive wall like façades of this former square have been spared. Sigismundo has offered to return to the world of public politics and private pleasures. Under the guise of a town gardener, Malatesta requests that Mortimor come up with a site plan and section to enhance the newly re-opened tourist center with specific elements. This tourist center complete now with doors and windows is to front the major town piazza, which measures 60'x120', running from the short side of the Moroccan maidens house to Malcontenta Tea House, and axially facing the twin churches of Santa Theresa and San Bartolomeo, each with 25' fronts that allows for the 10'-wide Aenean Way directly in between, connecting the Piazza with the rest of the town. The west side of the piazza is porous, a market agora with a 20'-high, 120'-long colonnade of trimmed cedars of Lebanon screening a reciprocally scaled double arcade. To the east are open fields providing a long vista of a memorable horizon tensioned by Cleopatra's paired obelisks as totemic vertices dancing along with dynamic pedestrian meanders as trespassers moving across this platonic precinct.

In the midst of Sigismundo's short spiritual retreat, he had failed to notice that a volcanic eruption had raised a terraced garden from the sea depths to extend the rear of the now transformed tourist center. This garden measures precisely 20'x60' and is to be a place of inaugural delight. Only the gardener may tend this paradise, reaching it by a stair or ramp that will connect Sigismundo's rooftop speaker's balcony to the south with his garden refuge to the north. Mortimor has redefined the tourist center/monks' retreat in terms of landscape and skyscape, in terms of bottom and top, in terms of basements and attics, or grottos and celestial soffits. A place of public ceremony and private retreat is to be made exclusively with elements of the context in terms of urban conventions and private idiosyncrasies in the memory of Matisse, whose Maltese friends have donated their full support for this project.

The student task in this exercise was to offer alternative strategies for the public piazza and private paradise through the use of the following landscape elements: a subtractive amphitheater and elevated performance platform, two obelisks (each 6' in diameter and 30' high) an olive orchard of 32' trees @ 8' center, a boxwood maze consisting of 12' diameter exedrae for religious images plus a contemplative promenade connecting them, a vineyard of 64 vines with arbors @ 4' centers, a statue of Matisse and a bust of Malatesta, a triumphal arch of no more, or less, than 30' in height, a stone mosaic 20' in diameter and, finally, a moat, a well and a

fountain connected by an irrigation system.

The End of a Tale

The fifth and final exercise was intended to serve as the culmination for the preceding four. This narrative serves as a postscript:

It has been a remarkable year for Sigismundo Malatesta. From lord mayor to monk, he has experienced the heights of leadership and involvement at the depths of isolation and retreat. He has made the decision to accept an invitation to become a professor of landscape architecture for a full calendar year to teach and to reside within the precinct of a new school garden. The garden is to be articulated with campus grounds adjacent to a school of architecture. You are asked to replace Mortimor and to design in a four week exercise the garden precinct and to locate and recall the Tempio di Sigismundo Malatesta di Rimini as a guest studio within its bounds. The garden is to be used exclusively by the school of architecture with access directly from the existing building and with walls proposed to keep the rest of the campus out but serve as mirrors for the Moon. The studio is a pavilion detached from the building but accessible from it.

The garden and studiolo were intended to enable students to develop the notion of mutual interdependence, in order to achieve unity and order as well as discrete articulation of the specific events and places developed in the course up to that point established as collective memory, some value as recurrent dualities. The garden component had three parts: places for student celebration, faculty contemplation and a guest's inhabitation. The studiolo was to have two parts: a space for public interaction and a space for private retreat. The space requirements of the garden were of a general nature; to make clear the distinction between landscape and paradise. The spatial requirements of the studiolo were more specific: a celebratory space (no more than 400 sq.ft.) where students, faculty, and seminarians could gather to include a source of water, a hearth, and a table, only one door, one window, and one oculus. The private retreat (no more than 200 sq.ft.) was a room where Sigismundo might rest, bathe, and dress. It was to have been marked by both the rising of the Sun and the setting of the Moon, and to have included a bed, a table, and appropriate sanitary fixtures with two doors, two windows and two oculi. The memory of the megaron was to haunt this dwelling.

In this course I have attempted to introduce students to some elements of buildings and landscapes, to some attitudes of composition, and to various modes of representation. I see the value of this course as one of acquiring an attitude rather than the development of skills. This attitude has been encouraged by the basic narrative. The insistence on the sequential statements on establishing the primacy of a narrative in specific human terms was predicated upon the belief that architecture is responsible for the location of the individual with respect to one's world. It assumes that a spatial tale of origin is the responsibility of the educated architect and not the license of the spirited designer. Above all, students were asked to translate dreams into fables-into architecture by means of discipline and a delight in speculative meandering, predicting a later appreciation of *A Field Guide for Getting Lost*. In the end, architecture must serve as a covenant with the world.