Amanda D. Fritz

THE SHIDELER RESIDENCE

Albany, Indiana

A Design/Build Experience

May 1995

Department of Architecture
College of Architecture and Planning
Ball State University

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Albany, Indiana

A Design/Build Experience

Bachelor of Architecture Degree Program
Thesis Design

Thesis Design Committee

Bruce Meyer • Professor of Architecture • Thesis Studio Critic

L. Rod Underwood • Professor of Architecture • Thesis Critic

Pamela Harwood • Professor of Architecture • Thesis Critic

Michele Chiuini • Professor of Architecure • Thesis Critic

This thesis is dedicated to my fellow Barnitects who have given me an experience I will not soon forget. Thanks for your dedication to the project!

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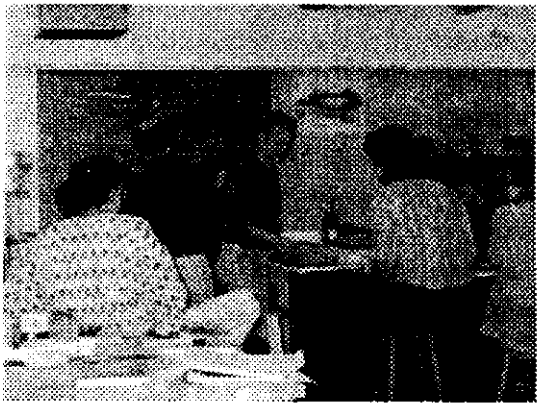
INTRODUCTION

In the Spring of 1994, a mid-ninteenth century residence in Albany, Indiana was sadly lost to an electrical fire. Little did its inhabitants know that less than one year later, amidst the country landscape, a group of college students would spend countless hours in the family's adjacent barn pounding away to bring new life to the historic property.

The process for conversion of Tony and Suzanne Shideler's Dutch bank barn into a residence for the couple and their son began with the commencement of 1994-95 thesis studios as 13 students were organized under the guidance of Professor Bruce Meyer. Gathered with the expectation of obtaining a design/build experience, the students were enlightened to the Shideler's situation -- a connection made through Meyer's friendship with the couple -- and began seriously pursuing the project vision.

Through frequent meetings with both Tony and Suzanne beginning in September of the school year, information was gathered and ideas began to churn.
After much communication and design, permission was granted to begin construction in November with a tentative completion date of May.

The following is a documentation both of this process and of the resulting product . . .



Above: The studio celebrates the news of permission to proceed with the Barnitecture project.

ACKNOWLEDGEMENTS

This project would not have been possible were it not for the generous help of professionals and the cooperation of the college.

My utmost gratitude goes out to Tony and Suzanne Shideler for their faith in our studio. They have made possible an educational experience that could not have been more rewarding. Tony taught me everything I now know about electrical wiring, and Suzanne cooked many a meal for our hungry crew. I thank you both.

I wish to thank Bruce Meyer for his patience and confidence in an inexperienced but talented group of students. His encouragement and optimism have never failed to provide inspiration.

Thanks to the volunteering of selfless individuals such as Mark and John Kemble who so graciously finished our concrete slab; and Larry the considerate neighbor who served as our excavator; and Tom Needler, our plumber, who so patiently shared his wealth of knowledge with us.

In addition I thank the university for its cooperation and support.

Thank you to all companies who helped us out on budget by supplying materials at special prices as well as to all companies from whom we rented tools. We most definitely could not have worked without you!

And lastly, my appreciation goes out to my fellow Barnitects for the shared knowledge, skill, and time.

THESIS PREMISE

In a world where most of the buildings designed by architects are at a fairly large scale and time is most often scarce, the role of the architect as master builder rarely comes into play. Too often societal demands and human limitations restrict that possibility. The most frequent scenario would put the architect in tight control until the point of construction during which he/she steps back and hands over the reigns to a party whose interest proves little beyond quality of self, time, and money. In light of the size and programmatic needs of some of today's building types in addition to strict budgetary needs of many clients, this is probably more often than not the most feasible setup. However, in this 'civilized' world, we have lost something in this compromise.

Though there do exist economical benefits to separating the design team from the construction team, the inherent lack of omniscience regarding a specific project carries with it negative consequences as well. For instance, the manner in which one perceives a design on paper may not directly corellate to the way it is perceived once it is manifest in a built form. The ability to continue the design process through to completion via continued reception to small changes and new details can result in a product of much higher quality. It becomes a 'design as you go' approach. One benefit is that one designs more directly in response to context -- both existing and that which is simultaneously being created as part of the project. When the creator is separated from his her work to allow another to make certain that the details work out, ideas and quality are at risk. Not to say that quality cannot result from the current architect vs. contractor relationship. However, a conflict of interest can often prohibit the very best architectural results.

I have witnessed architects struggling with this scenario. They struggle to uphold their values on a project while the contracting company does the same for its own interests. Generally, the passion towards the specific design of the project is not, as I have seen it, shared by the party involved in the actual construction. I would not expect that since in the traditional role, the actual builder has not lived through the process of achieving that design. This exclusive relationship only promotes conflict in the desired outcome of the project.

Though the separation of the role of architect and builder is often necessary in this age, often the separation is too much defined. The problem is heightened because many times architect and builder are pulling for different teams. It currently seems to be the exception rather than the norm that architects and construction crews work under the same leadership -- for the same company. By this voluntary division, we are conveying that a close relationship is not necessary. When in fact, we very much depend on the other to accomplish our goals. What is needed is a more concerted effort. We need to see teams not of just architects and engineers and interior designers and landscape architects and planners . . . but of construction crews as well.

Another problem with the separation of architect and builder is the sometimes lack of understanding on the part of the architect regarding the reality of the situations he/she has designed. I have overheard many a complaint from those involved in the construction end that architects do not understand how

materials come together. Architects are often accused of creating complex or challenging conditions for the realization of the design. This is, in my eyes, to be expected if we continue to avoid becoming directly involved to that end. If one has never been forced to follow through the steps to achieving the actualized vision, then a certain degree of naivety is to be expected. Only through experience does this information become learned.

Currently, the education process does not mandate practical experience in constructing designs to full scale. This is not good. The level of project development most prevalent in schools today is that of schematic design. It is mandatory. One cannot escape the hallowed halls of architectural education without having experience in this area. It is necessary to perform well in the profession. We seem to have some misconception that all we need to know about construction can be learned from pretty drawings and diagrams. I realize that there are exceptions to this in some cases, but from my own experience this seems to be the general rule. By assuming this, we are already separating ourselves from the construction of our designs. I cannot conceive of how we can truly understand the efforts needed to achieve certain design goals if we have never felt them firsthand. It seems to me that requiring some experience in a hands-on setting can only improve future professional relations between disciplines in that it may increase understanding between parties.

Current approaches to handling the actualization of architects' designs seem to more often than not encourage a hands-off role. In this sense, that idea of master builder has gone by the wayside. It is a change related to modern times that is to an extent necessary. However, architects do miss out on some degree of opportunity. There is a level of design exploration and resolution that is generally not reached when the task of building is passed off. There is something to be gained by the design/build approach that is too often ignored today.

This thesis was meant as a personal investigation of the benefits, skill, understanding and quality gained by following a project through as designers playing an active role in the construction process.

THE STUDENT TEAM

PROF. MEYER

MATT DOUHAN

AMANDA FRITZ

JEN GILMER

AARON HASCHELL

BOB HARMEYER

JEANNIE KEMBLE

TIM MACY

SARAH MARSHALL

PHIL MATTON

TROY MILLER

KELLY MULDER

ROLLAND RESURRECTION

MATT WOODRUFF

** NOT PICTURED: JEFF BOGLE (Involved in the design phase only)*

** Photo of Amanda Fritz taken by Kurt Hostetler of the Muncie Star*

CONTEXTUAL INFORMATION

The site of the barn is located on the same property as the Shideler's Previous residence which was lost to a fire last spring. It consists of 25+ acres of land amidst the agricultural countryside of Albany, Indiana. A fairly large pond is located on site as well-- just south of the existing barn. It is a Dutch-built bank barn opening up to the south with an existing heavy timber hand-hewn structure.

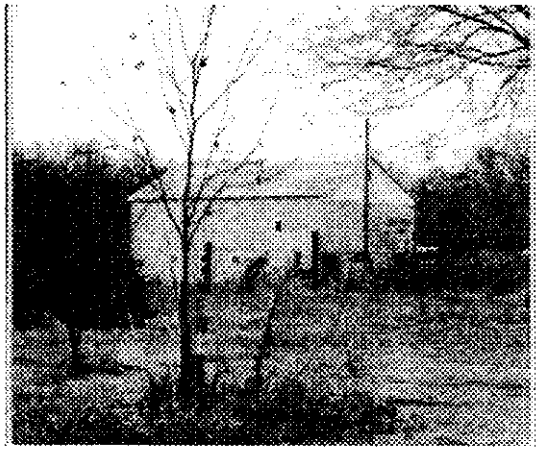
The residents of this new facility will be Tony and Suzanne Shideler and their fourteen year old son T.J. Though the three of them will be the only users the majority of the time, the couple both have grown children from previous marriages who visit occationally.

Tony is a Purdue University faculty member teaching at Ball State. Suzanne is an insurance salesperson. Both enjoy cooking, entertaining, reading, and cross country skiing. The couple possesses a fairly extensive collection of books and a small amount of art work as well. T.J. is a junior high student who enjoys sports including such activities as soccer and basketball.

Western approach to the existing barn.

View from the southwest.

Interior view of existing lower level.



View from the southeast.

DESIGN CRITERIA

Through conversations with the client, it has become evident that the value of family time is highly regarded amongst the Shidelers. The family owns no television, and reading is a shared favorite pastime.

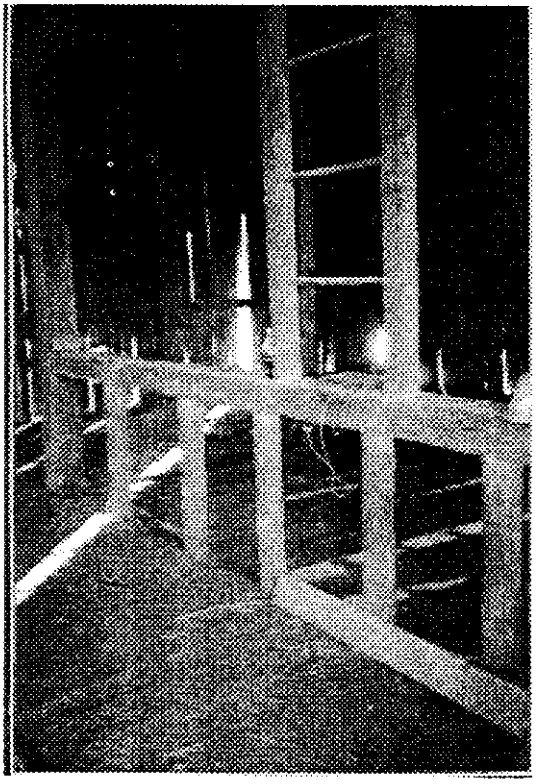
Cooking and entertaining dinner guests are important to this family as well. Both Tony and Suzanne have emphasized the importance of their kitchen not only as a place for food preparation but for interaction of the host with the guest or family before, during, and after mealtime. Both enjoy spending time in their kitchen.

Since family guests are a common occurrence with the visitation of the children and their families, the housing of additional individuals is another need that must be met. Consideration must be given to sleeping, bathing, visiting, and dining as well.

Externally, the facility sits back quite a bit from the road. Consequently, the entry drive approach must be considered. There should then be a distinction internally that relates to this idea of the 'public face'. Since it will be situated adjacent to the pond, views, which are nost pleasant from this side, and external conditions such as summer breezes coming off the pond should be influential as well. The issue of entertaining also becomes a consideration here, for in the warmer months, grilling and outdoor family functions should ideally take advantage of the water's edge and the seasonal comfort and visual pleasantry the pond provides.

PROGRAMME

The following pages are the result of a single group-compiled program. The spaces were divided up into zones with teams of two assigned to programming one each. The information was compiled in mid-September and presented to Tony and Suzanne in a studio meeting -- allowing for questions to be asked both by students and clients to maximize understanding of the needs and desires. This is a copy of the material presented at that meeting. Any hand-written notes found within were written by the clients...



Existing interior (main level).

DESIGN PROGRAM

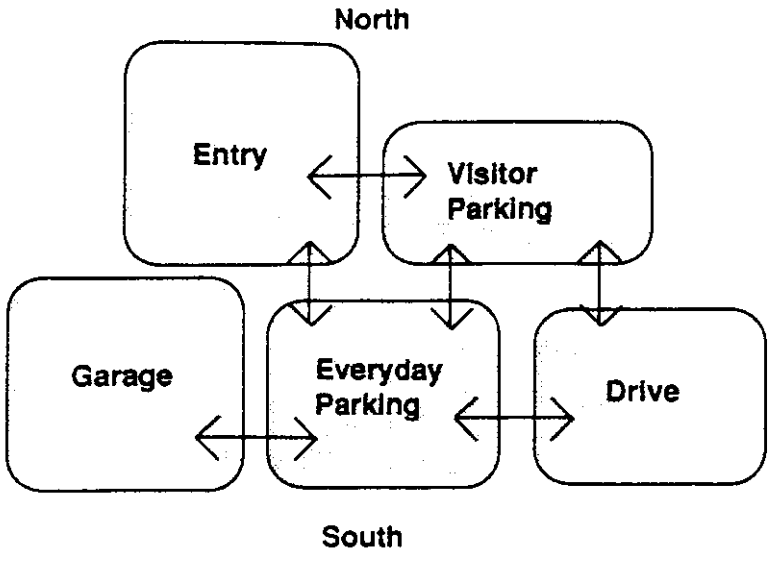
SHIDILER RESIDENCE
Albany, Indiana

DRAFT
DESIGN PROGRAM
September 16, 1994

Thesis Design/Build Studio

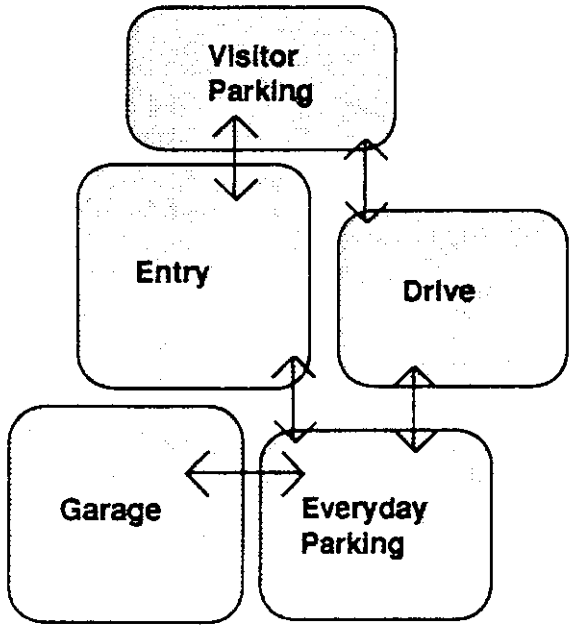
Prof. Bruce Meyer
Jeff Bogle
Matt Douhan
Amanda Fritz
Jennifer Gilmer
Aaron Haschel
Bob Harmeyer
Jeannie Kemble
Tim Macy
Sarah Marshall
Phil Matton
Troy Miller
Kelly Mulder
Roland Resurreccion
Matt Woodruff

BarchNitecture



Alternate 1(a)
Alternate 2(a) - Mirror image of above

Visitor Parking
up to 20 cars
car court-double turn-around
(plaza)



Everyday Parkir
2-3 cars
visual barriers

Garage
2 cars
people door

Alternate 1(b)
Alternate 2(b) - Mirror image of above

Access ⟷

View →

DRIVEWAY/PARKING ZONE

DRIVEWAY

Alternative 1(a)

Extend original drive to east side of house and create a 'car court'
Garage entrance would then be on east (southeast) side (2 door)
Requires the use of a retaining wall in some fashion
Main (formal) entry would be on east side through a walkway system, door located at NE, E, SE

pros

+Economic benefit by reusing existing driveway
+Procession in approach sequence provides an experience of the whole before point of entry
+Future potential for service drive to other barns (shoot off existing)
+Least amount of site disruption
+Possible use of other barns for parking facilities
+East side is more protected from the elements (snow, winter winds)

cons

-Conflicts with (but does not control) the privacy and morning light requirements of the master bedroom, and the entry zone
-Does not provide for an easy public to private flow in the plan

Alternative 1(b)

Place 'car court' (parking) to the north for a north main level entry (as a formal, main entry)

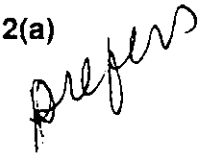
pros

+Retains original entry with two big doors
+Easy access to the main level for pedestrian travel
+More usage of a back entry

cons

-Disrupts view and green space opportunities
-Adds extra paving sq. footage ($ & time)
-North wind (but can be designed around for comfort)

Alternate 2(a)



Create paved (gravel) drive entry from the west side of pond
Garage entrance on west (southwest) side (2 door), with visitor parking and retaining wall as required
Main (formal) entry west side with side porch or other walkway

pros

+Works well with the public to private aspects of the house plan
+View around the pond (close up)
+New house, new driveway apart from the old
+Definite front door/back door relationship to site

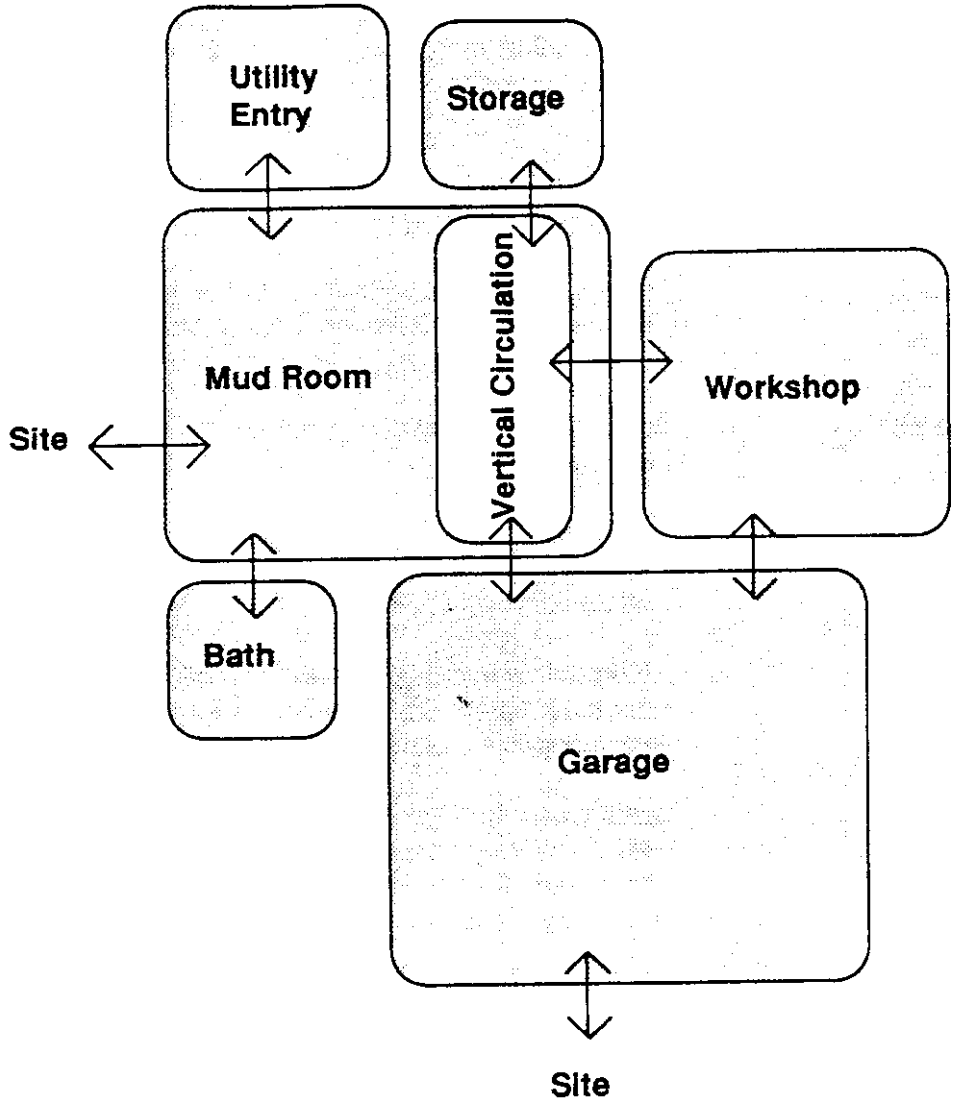
cons

-Economics, costs more
-Weather, flooding of pond, winter conditions (drifts, ice, etc.)
-Construction considerations-time, buidling up above pond level & compaction
-More steps up to the main level, west entry requires move movement of earth
-At a west entry the weather is a greater negative determinant in design

Alternative 2(b)

Place 'car court' (parking) to the north for a north main level entry (as a formal, main entry)

Pros and Cons same as for Alternative 1(b)


Utility Entry
Storage
Mud Room
Vertical Circulation
Workshop
Site
Bath
Garage
Site

Access ⟷

View →

GARAGE

Characteristics	Ground level entry from east or west, adequate room for 2 cars and storage for car and garden equipment
Floor	poured concrete, with drain
Walls	2 ply gyp. board for 2 hour fire rating; painted
Ceiling	painted gyp. board
Windows	1 or 2 small windows
Doors	aluminum, 2 hr. fire rating to interior; garage doors
Base	
Lighting	overhead
Furnishings/Cabinetry	shelves and cabinets for equipment storage
Equipment	garage door opener
Electrical	standard
Plumbing	floor drain
Special	
Primary Relationships	Vertical circulation Workshop
Notes	

WORKSHOP

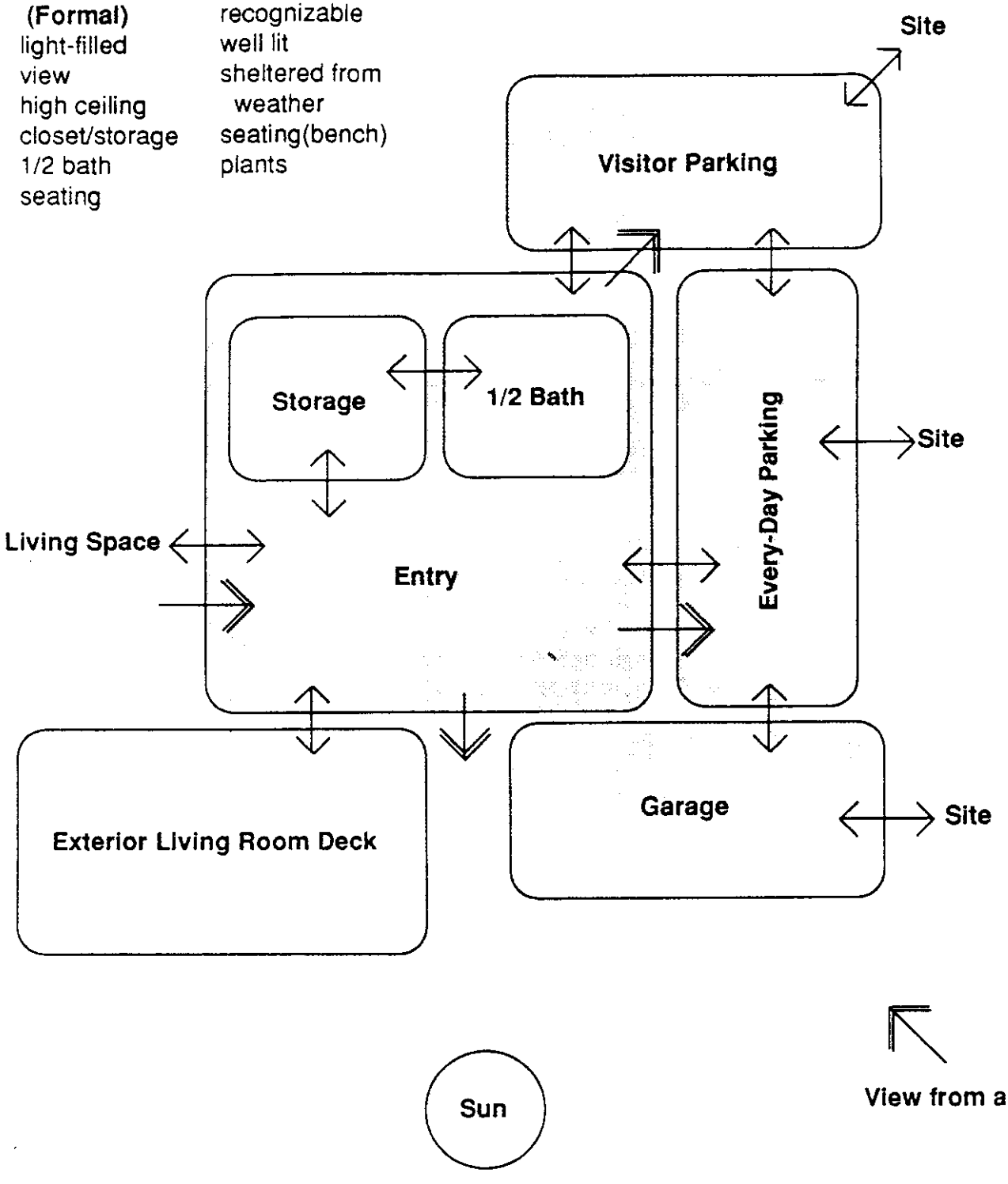
Characteristics	approx. 20' x 20' room with adequate access for supplies
Floor	poured concrete
Walls	painted gyp. board
Ceiling	painted gyp. board
Windows	not necessary, possibly 1 or 2 small windows
Doors	aluminum
Base	
Lighting	overhead, flourescent
Furnishings/Cabinetry	countertops, cabinets
Eqipment	
Electrical	standard
Telephone	possibly one outlet
Plumbing	floor drain
Special	
Primary Relationships	Garage Vertical circulation
Notes	Ventilation system

UTILITIES & STORAGE

Notes	Freezer enclosed in block utility core also enclosed in block ground level pantry for long-term storage yes

Entry/Interior
(Formal)
light-filled
view
high ceiling
closet/storage
1/2 bath
seating

EntryExterior
recognizable
well lit
sheltered from
weather
seating(bench)
plants



ENTRY ZONE

ENTRY (FORMAL)

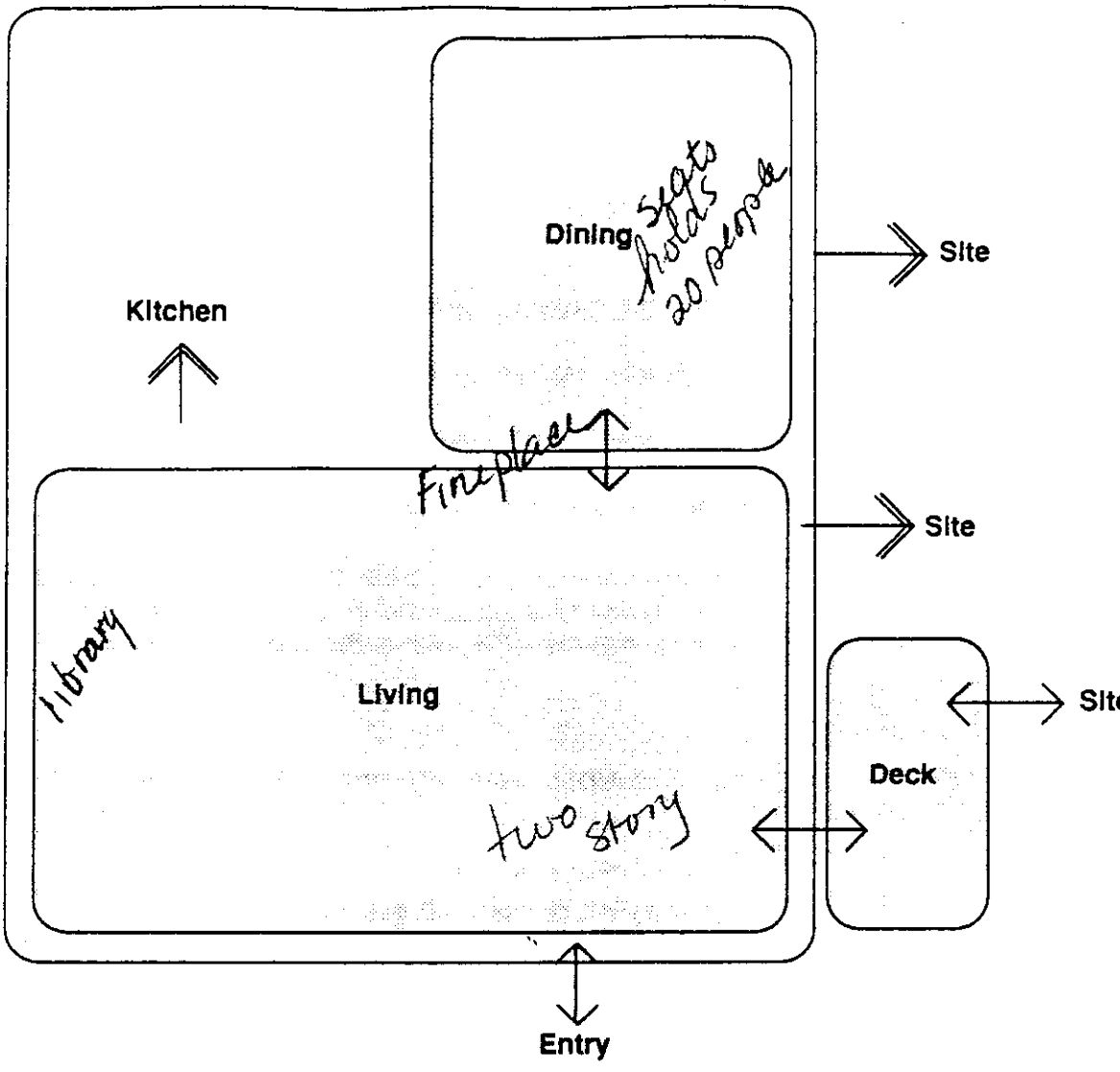
Alternative 1a	South entrance on first level, eastern or centrally located
pros	+better protection from elements; views of pond; accessible from either East or West driveway
cons	-need for stair or ramp; not easily accessible to elderly or handicap
Alternative 1b	East or Northeast entrance on first level, ideally from grade level
pros	+no stair with Northeast entrance; close proximity to East driveway
cons	- no evening light, no view of pond
Alternative 1c	North entrance on first level
pros	+no stair necessary; accessible to elderly and handicap; possible to have easy vehicle access; sense of mystery to visitors
cons	-exposure to elements; not readily visible to visitors

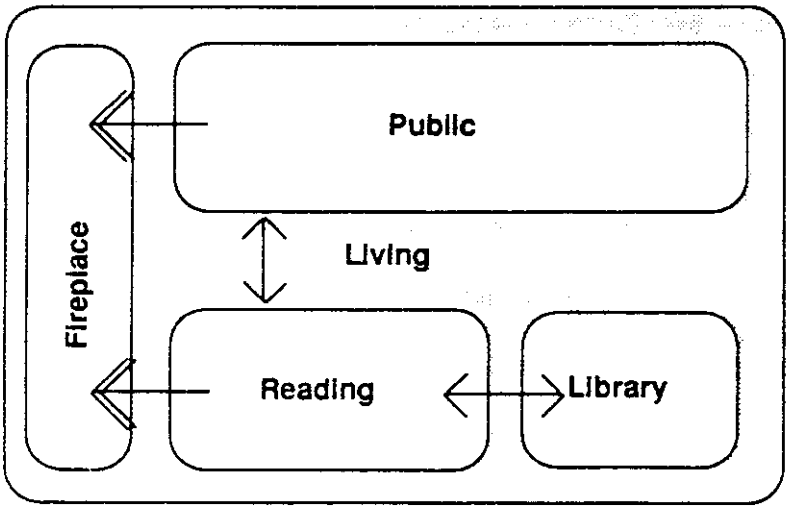
INTERIOR:

Characteristics	Natural daylight; mystery-not revealing living space immediately
Floor	tile
Walls	painted 5/8" gyp. board
Ceiling	higher ceiling; painted 5/8" gyp. board
Windows	allowing light but providing some privacy
Doors	wood
Base	oak
Lighting	artistic or antique hanging light fixture
Furnishing/ Cabinetry	hall tree, entry table, chair or bench, coat closet
Electrical	standard
Plumbing	possible for 1/2 bath located off of entry

EXTERIOR:

Characteristics	Visible from approach, sheltered
Floor	wood deck, concrete
Overhead covering	extended roof or new material (wood, metal)
Doors	
Furnishings	bench (built-in or moveable)
Lighting	down lighting
Equipment	doorbell, doorknocker
Electrical	standard
Special	plantings, planters, pots
Primary Relationships	Exterior: parking, garage, connecting deck/porch Interior: living, vertical circulation, entry bath





Access ⟷

View →

LIVING/ DINING ZONE

LIVING

Characteristics	Open (plan, ceiling heights), provide for socialization and isolation, intimacy, heating center
Floor	hardwood
Walls	painted 5/8" gyp. board and wood siding accents
Ceiling	2-stories with view of structure, possibly loft above with painted gyp. board/wood
Windows	flooded with natural light and many views
Doors	none or few, open plan
Base	wood
Lighting	ample light for reading (or outlets for lamps)
Furnishings	public and intimate spaces, sofas, chairs, coffee tables, piano, book storage
Equipment	fireplace or ceramic stove
Electric	standard
Telephone	one phone, two jacks
Plumbing	none
Primary Relationships	Dining Entry Deck/Pond Circulation
Notes	Views outside, visual connection to kitchen

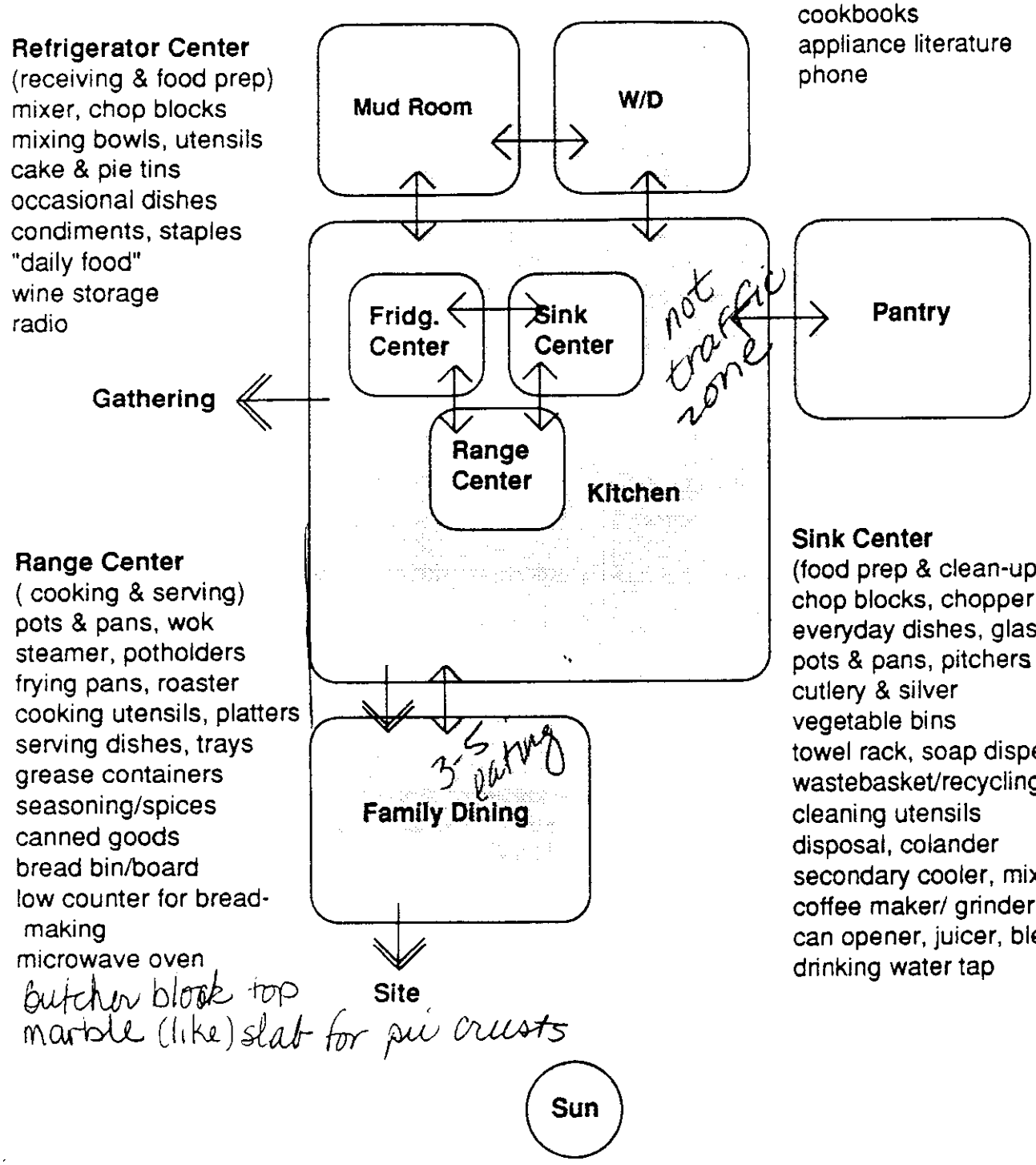
DINING

Characteristics	Open, formal, flowing from other spaces (living and kitchen)
Floor	hardwood
Walls	painted gyp. board and wood siding accents
Ceiling	lower ceiling height that Living area, painted gyp. board
Windows	few, create internal focus
Doors	none
Base	wood
Lighting	hanging fixture(s)
Furnishings	small table-expandable; china display
Equipment	NA
Electrical	Standard
Telephone	None
Plumbing	None
Primary Relationships	Kitchen Living
Notes	view to outside

manipulated openness

Planning Desk
cookbooks
appliance literature
phone

Refrigerator Center
(receiving & food prep)
mixer, chop blocks
mixing bowls, utensils
cake & pie tins
occasional dishes
condiments, staples
"daily food"
wine storage
radio



Range Center
(cooking & serving)
pots & pans, wok
steamer, potholders
frying pans, roaster
cooking utensils, platters
serving dishes, trays
grease containers
seasoning/spices
canned goods
bread bin/board
low counter for bread-making
microwave oven
butcher block top
marble (like) slab for pie crusts

Sink Center
(food prep & clean-up)
chop blocks, chopper
everyday dishes, glass
pots & pans, pitchers
cutlery & silver
vegetable bins
towel rack, soap disper
wastebasket/recycling
cleaning utensils
disposal, colander
secondary cooler, mixe
coffee maker/ grinder
can opener, juicer, bler
drinking water tap

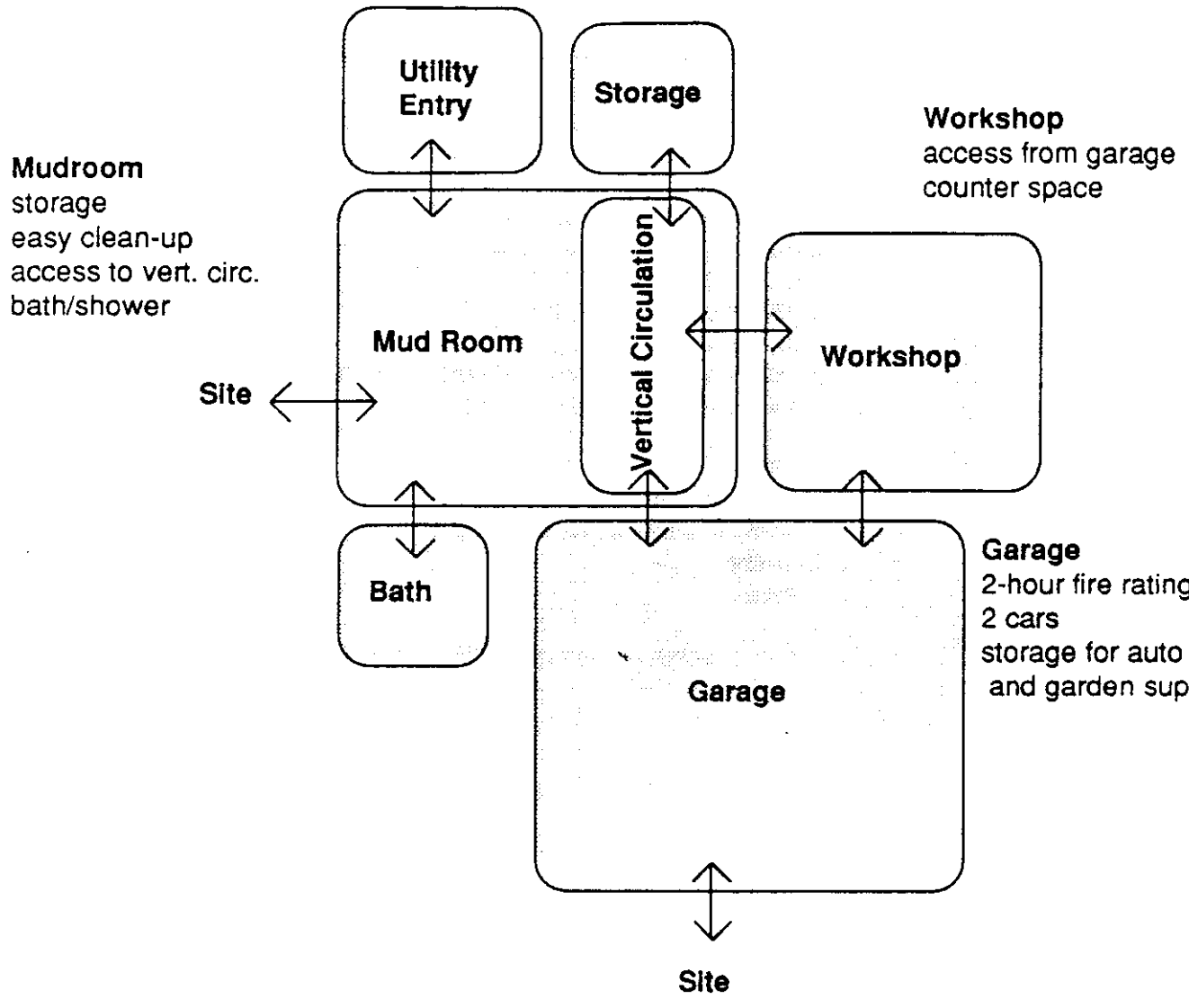
Access ⟷

View →

KITCHEN ZONE

KITCHEN

Characteristics	Breakfast/family dining area with view to south/southwest; generous counterspace for multiple users; manipulated openness to other areas- allow for some segregation
Floor	ceramic tile
Counters	reuse of hand-painted tiles
Walls	
Ceiling	drop ceiling/ varied heights - possibly low over work, high over serving;5/8" gyp. board
Windows	clerestory window; possibly under cabinet window
Doors	access to pantry; possible access to deck
Base	oak
Lighting	various task lighting; accent light for displays
Furnishings/Cabinetry	bread counter, birch plywood with hardwood edges
Equipment	see zoning diagram
Electrical	multi-circuit 110V + 220V
Telephone	one outlet
Plumbing	2 sinks - prep and clean-up, stainless steel; separate drinking water; dishwasher; refrigerator(ice maker)
Primary Relationships	Deck Dining/gathering Mudroom/secondary entry/vehicles Laundry Pantry
Notes	Views of pond- south- southwest site, west site



MUDROOM/BATH
SECONDARY ENTRY ZONE

Access ⟷

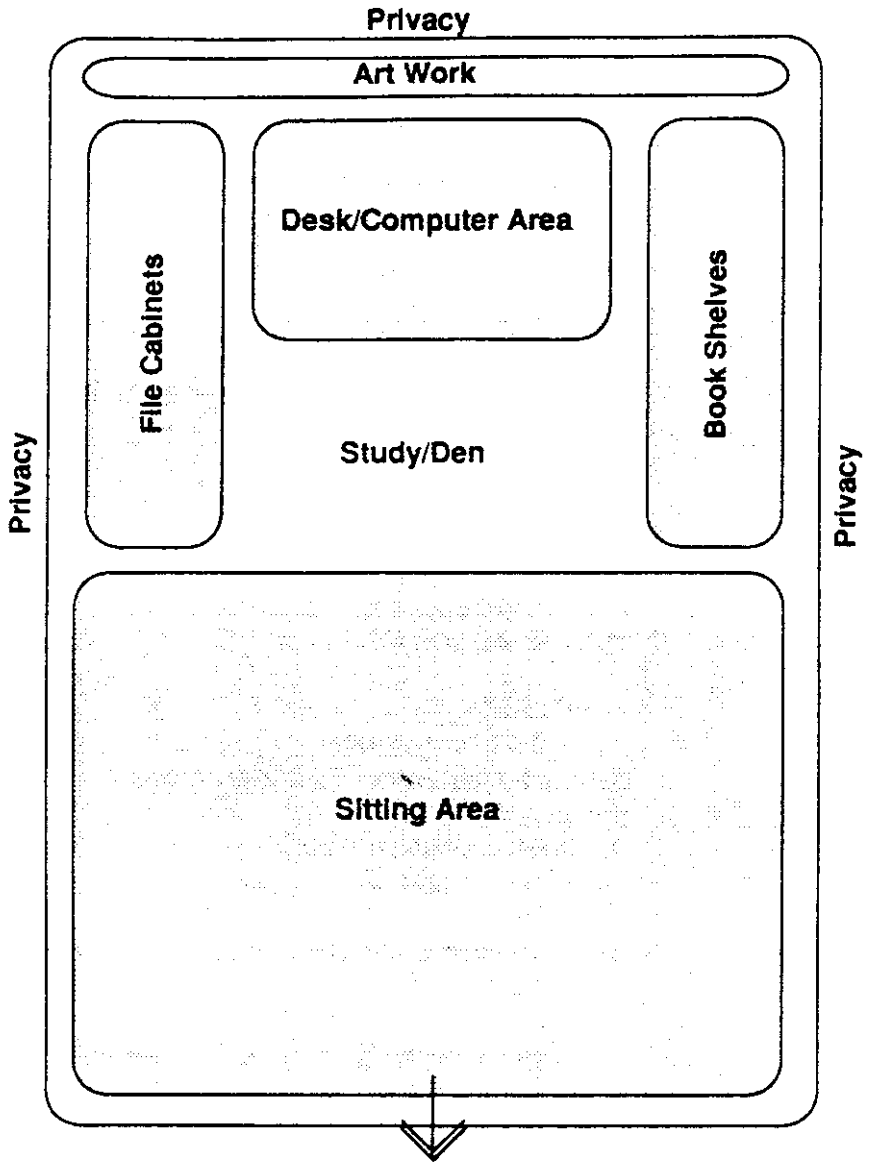
View →

MUDROOM/BATH
SECONDARY ENTRY

Alternative 2a	South entry, ground level
pros	+also provides access to outdoor recreation area
cons	-separate from parking; need for vertical circulation
Alternative 2b	East entrance, next to garage
pros	+access to more storage
cons	-separated from main living spaces
Alternative 2c	North entry, first level, entrance on grade
pros	+access for elderly, handicap, vehicle unloading
cons	-separte from parking

MUDROOM

Characteristics	Utilitarian, adequate storage for clothing, sports equipment possible access to stair between ground and first level possible access to 1/2 bath
Floor	ceramic tile
Walls	painted 5/8" gyp. board
Ceiling	normal height, painted 5/8" gyp. board
Windows	minimal
Doors	insulated, aluminum door
Base	match floor material
Lighting	overhead
Furnishings/Cabinetry	closet, counter and overhead cabinets, coat rack
Electrical	standard
Telephone	none
Plumbing	utility sink, possible shower, possible bath
Special	
Primary Relationships	Kitchen Secondary Entry



Requirements
Desk
Computer
Bookshelves
File cabinets
Sofa/Bed
Sitting Space
View
Art work
Privacy

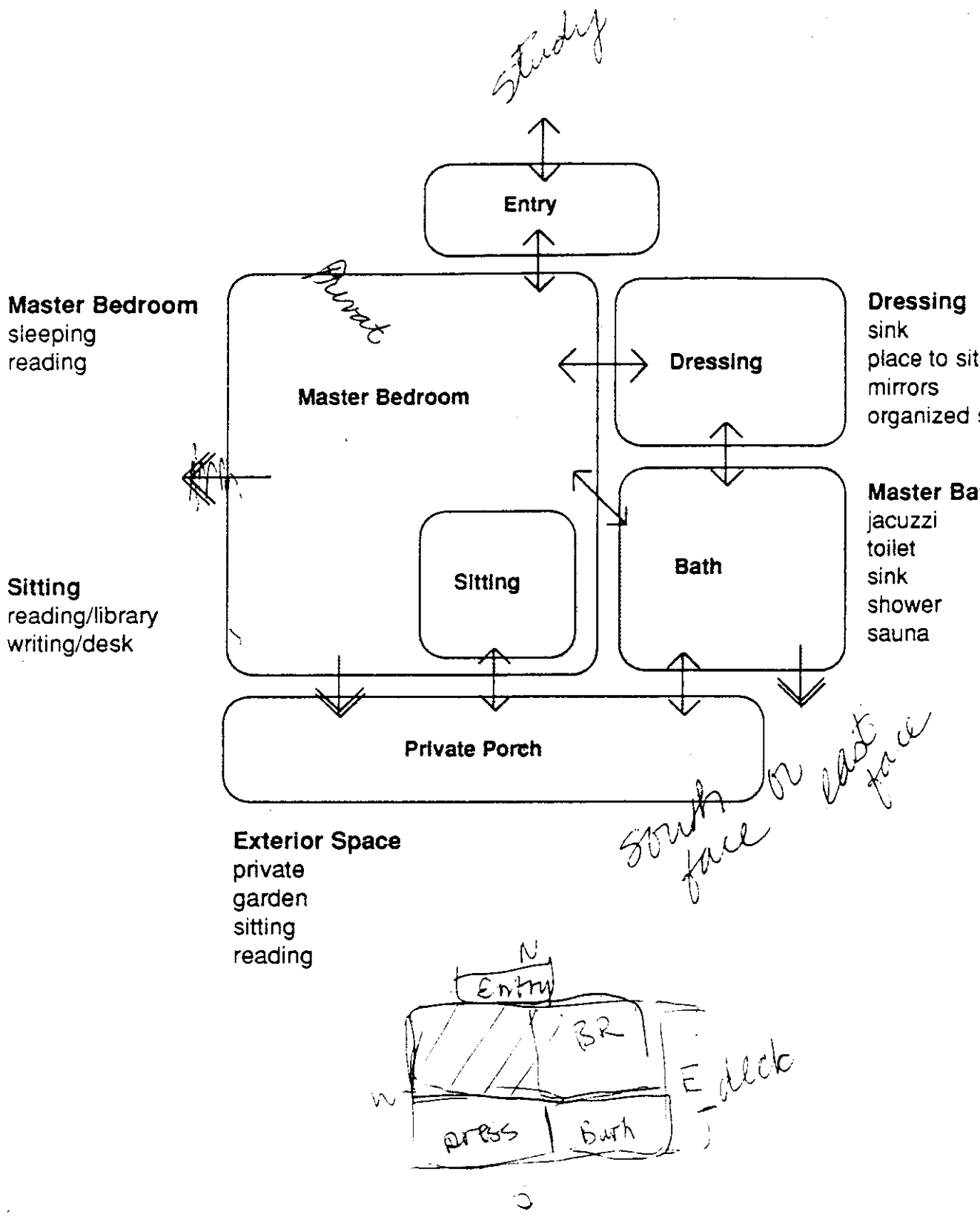
Access ⟷

View →

STUDY/ DEN ZONE

STUDY/DEN ZONE

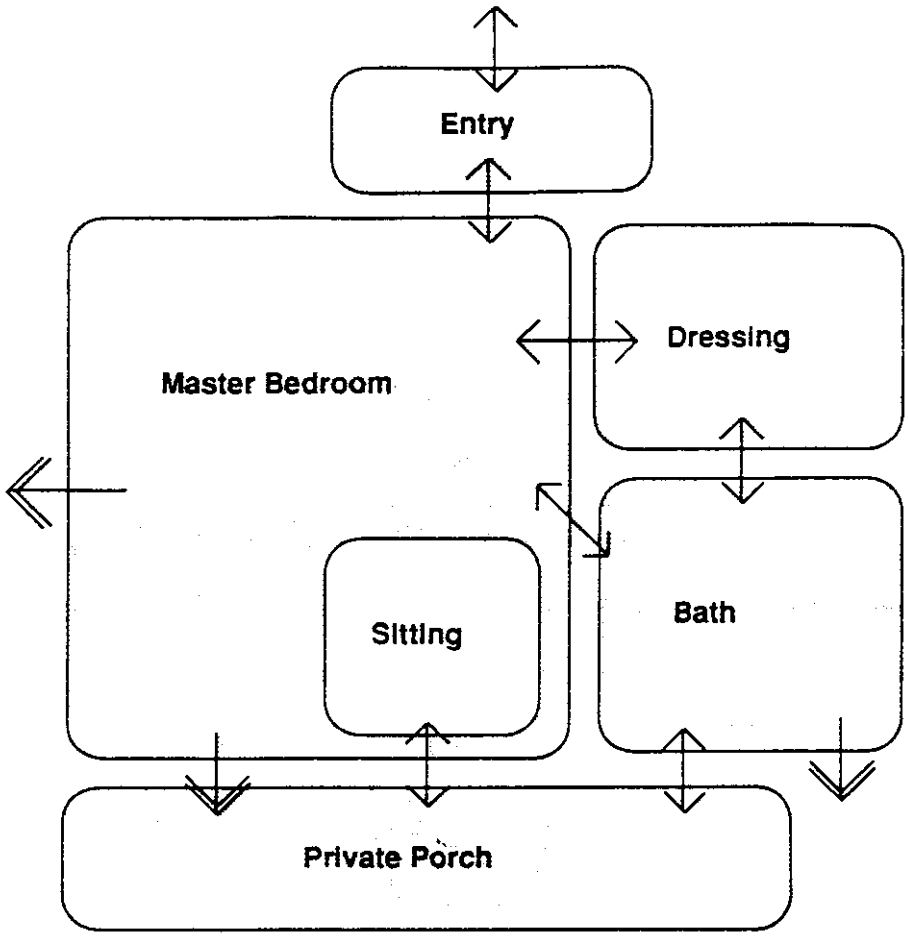
Characteristics	Quiet, cozy, introverted, private
Floor	carpet or wood with area rug
Walls	painted 5/8" gyp. board (possibly exposed structure)
Ceilings	painted gyp. board (possibly exposed structure)
Windows	one, with a pleasing view
Doors	one entry - wooden
Base	wood moulding-painted or stained
Lighting	ceiling fixture, task lighting (lamps) at work areas
Furnishings/ Cabinetry	large desk with 'comfy' chair, bookshelves, filing cabinets, sofa-bed
Equipment	
Electrical	outlets to accomodate lamps, computer
Telephone	at owner's discretion
Cable	for computer?
Plumbing	
Special	wall space available for artwork display
Primary Relationships	lock between public spaces (living, kitchen, entry, etc.), close in proximity to a bathroom
Notes	



MASTER BEDROOM ZONE

Access ⟷

View →



MASTER BEDROOM ZONE

Access ⟷

View →

MASTER BEDROOM

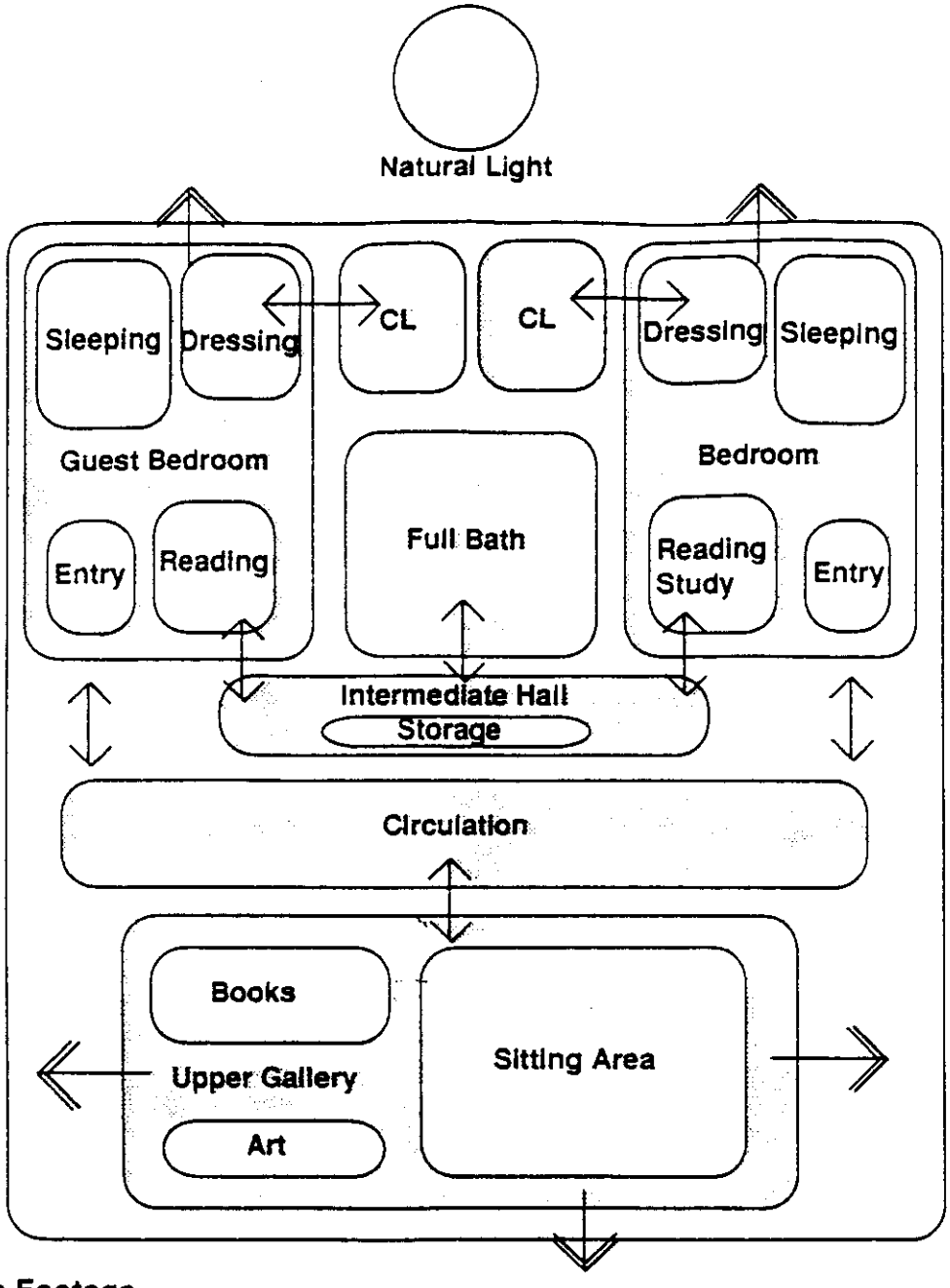
Characteristics	Prefer morning light; possible access to exterior spaces; vaulted c ings with lowered portion over sleep area, includes sitting area adj cent; linked with dressing, bath areas
Floor	hardwood with area rugs or wall to wall carpet
Walls	painted 5/8" gyp. board
Ceilings	multi-level exposed timber frame and gyp. board
Windows	east or south exposure if possible
Doors	lock, access to exterior, dressing, and bath
Base	match hardwood floor materials
Lighting	ample light for reading, adjustable with dimmers (mood lighting)
Furnishings/ Cabinetry	bed, side tables, 2 easy chairs, book shelves, loveseat, coffee tabl
Equipment	wood stove, ceiling fan, track lighting
Electrical	standard
Telephone	(smartly spaced) multiple jacks
Plumbing	none
Special	must provide enough space for a sitting area
Primary Relationships	No direct access to family(public) areas; bath and dressing as sou buffers
Exterior Relationships	Deck or patio, semi-private vertical circulation to study above
Notes	Partial high ceiling, conversation sitting area, morning light

BATH
(Master Bedroom)

Characteristics	Well lit, tile for counter and floor surfaces, prefer some exposure to morning light and access to exterior space
Floor	ceramic tile
Walls	tile or painted 5/8" gyp. board, based on location
Ceilings	multi-level, exposed timber frame and gyp. board
Windows	frosted glass, glass, glassblock, clerestory
Doors	access to exterior, dressing, and bedroom
Base	tile to match
Lighting	indirect in shower and/or tub, direct in toilet and vanity area
Furnishings/ Cabinetry	linen cabinet, built-in vanity, counters
Equipment	toilet, vanity, shower stall, jacuzzi tub, shower, toilet vents
Electrical	standard
Telephone	one outlet
Plumbing	service for shower, tub, sinks, toilet
Special	must provide enough space for a sitting area
Primary Relationships	Bedroom, Dressing, Exterior spaces

DRESSING
(Master Bedroom)

Characteristics	Clean in presentation and appearance, everything in it's place with a place for everything
Floor	hardwood with rugs or wall to wall carpet
Walls	NA-mirrors, painted 5/8" gyp. board based on location
Ceilings	exposed timber frame and gyp. board
Windows	frosted glass, glass, glassblock, clerestory looking to bedroom
Doors	access to dressing, and bath
Base	match hardwood
Lighting	well lit for dressing, task lighting at counter
Furnishings/Cabinetry	cabinets for clothing storage (dressers), built-in make-up areas, possible desk surface
Equipment	space storage cabinet system, drawers, hanging rods
Electrical	standard
Telephone	one outlet
Plumbing	sink
Special	
Primary Relationships	Bedroom, Bath areas



Square Footage

Bedrooms	190 sf(ea.)
Full Bath	60 sf
Internal Hall	50 sf
Upper Gallery	200 sf
	690 sf

(not including closets and circulation.)

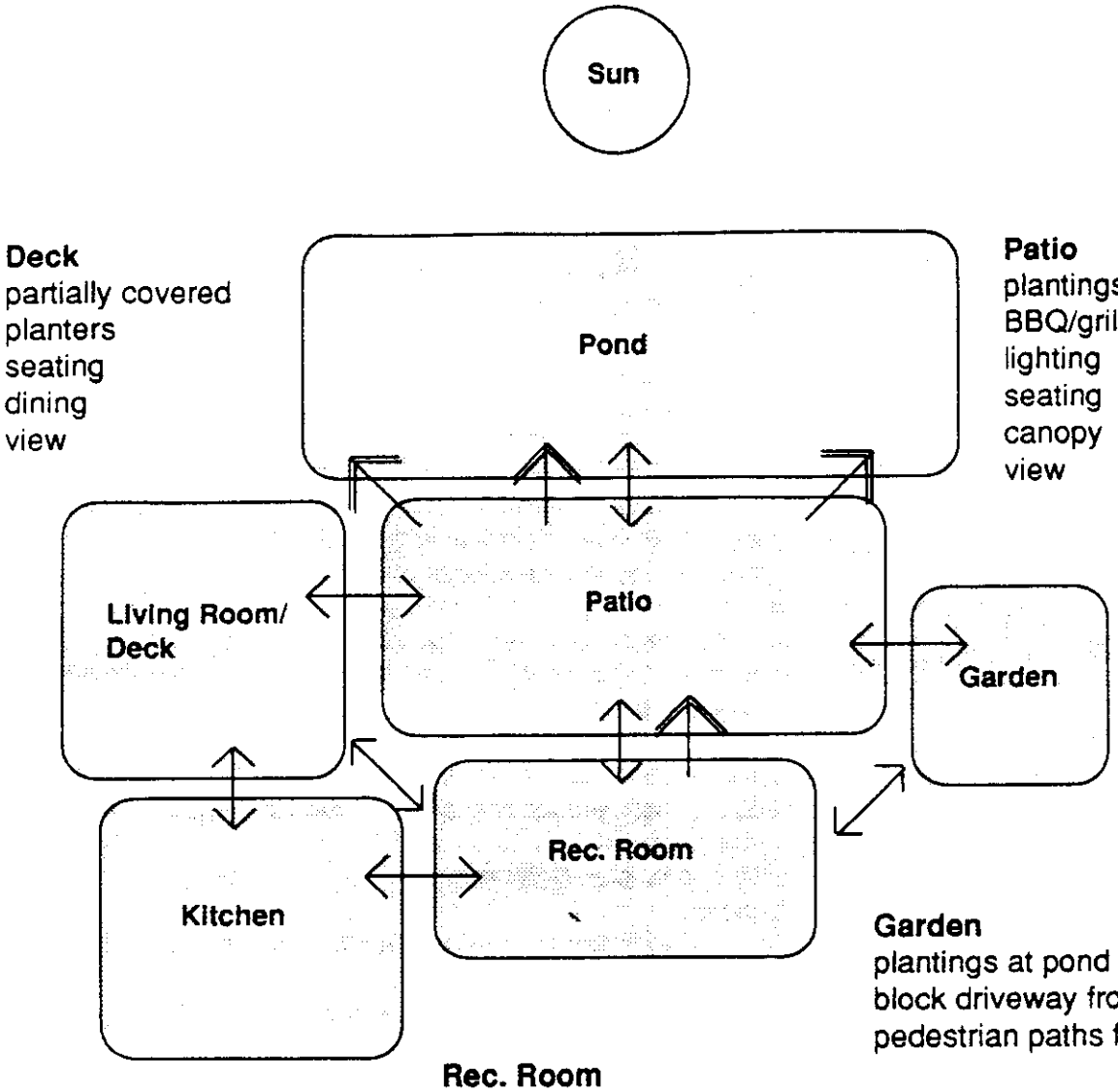
Access ⟷

View →

BEDROOMS/BATH ZONE

BEDROOMS/BATH

Characteristics	Spaces recommended to be on second floor Visual separation of reading and sleeping area Prefer daylighting to the north (bedrooms) Prefer to overlook interior spaces from interrelated library and art gallery Common storage space between bedrooms intended for linens, seasonal clothing, etc. Hi-low ceiling (over sleeping area) Exposed structure ideal
Floor	Bedrooms-carpet, Bathroom- ceramic tile, Storage-carpet, Circulation and Gallery area-hardwood floors
Walls	painted 5/8" gyp. board
Ceilings	exposed structure, painted 5/8" gyp. board, high-low
Windows	Library and Art Gallery-plenty of fenestration, Bedroom-windows recessed from perimeter of existing structure
Doors	access to possible exterior balcony
Base	wood
Lighting	special lighting for reading, general overall room lighting, warm (color) lighting for dressing, lighting to read in bed, indirect/direct combination for bathroom
Furnishings/ Cabinetry	wood bookshelves (indirect lighting), custom cabinetry for intermediate hall between bedrooms and bath , beds in bedrooms (with shelf combination), seating in reading areas (bedrooms), built-in seating in library and art gallery
Equipment	ceiling fans, exaust fan (bath)
Electrical	standard
Telephone	one outlet per bedroom, one outlet in library and art gallery
Plumbing	toilet, shower/tub, sink
Special	circulation with railing overlooking first floor
Primary Relationships	Close proximity to private zones of overall residence, Library and art gallery to serve as 'buffer' between public and private
Notes	



EXTERIOR RECREATION ZONE

Access ⟷

View →

RECREATION AREA/ EXTERIOR

Characteristics	Outdoor space, patio space, covered outdoor space, a physical extention of interior space flowing to the outdoors and the outdoors into the interior
Features	deck, patio, barbeque, plantings, garden areas, walkways
Floor	Deck-wood, Patio-concrete, pavers, brick (from house)
Walls	only adjacent exterior finishes
Overhead Coverings	trellis, extended roof, lattice with vines, canopy (metal)
Windows	
Doors	french doors, sliding glass doors/wall, side lites and transom (facade)
Base	
Lighting	flood lighting, task lighting at BBQ, accent lights at walkways
Furnishings/ Cabinetry	patio chairs and table, picnic table, lounge chairs, benches
Equipment	BBQ/grill, bug zapper
Electrical	standard
Telephone	
Plumbing	
Special	boat dock, pier, vertical connection to main level (stairs), garden, plantings
Primary Relationships	Pond - House Rec. area (garage entry) - Patio Living area - Deck Kitchen connection
Notes	

DESIGN METHODOLOGY

Subsequent to gathering basic client information and forming a program, the manifestation of the design in realistic form was conceived in three phases.

Phase I involved the formation and expression of ideas on an individual level. Within a one week time frame, each studio member developed his/her own image of what the layout and aesthetics should be. These ideas were then presented to the entire studio(the clients were not included at this point), upon which critiques and discussion began.

Once ideas were expressed, individuals who felt inspired by each others designs and felt that one could build upon the other's thoughts combined to form teams.

Phase II then involved these five separate new-found teams. Each worked out one representative solution in both drawing and model form. These five new designs were then formally presented to the clients, who received booklets summarizing each concept. The clients were then given several days to evaluate the designs, noting on their copies of the drawings both positive and negative thoughts.

Phase III began through utilization of the client feedback. All matters concerning such thoughts were discussed as a studio and general conclusions about layout and aesthetic were drawn. All previous designs were then discarded. The studio sat down together and in one weekend charrette (beginning with Friday studio and ending on a Monday), the final solution was achieved.

The entire process was a tedious one. Teamwork was a must, but taking a strong stance for or against issues one believed in also proved essential. The end result was a very successful one -- to paraphrase Professor Bruce Meyer, the final solution indeed bears everyone's signature.

Cost estimates were then calculated based on the desired $80,000.00 budget and presented to the clients as assurance that the project was realistic.

Though this was the end of design on paper, the process continued as construction got underway. The studio members served as the primary construction crew under the guidance of Bruce Meyer and the consultation of the three thesis critics (Underwood, Harwood, and Chuini). As walls were built and integration with the existing structure was further examined, new decisions continued to be made. Windows moved or were added, existing members were removed or encased with new stud framing, and unforseen details unveiling new design opportunities became resolved.

It was a process of continued evolution. The product that resulted was an extremely successful one that has proven impressive to its designers/constructors.

The following pages contain further documentation of this entire process. . .

INITIAL SCHEDULE OF EVENTS

ARCH 403 THESIS FALL 1994 MEYER
SHIDELER RESIDENCE DRAFT SCHEDULE

SEP 5 - 9	SEP 12 - 16	SEP 19 - 23	
Interview client; begin program Complete conceptual design; AIA Indiana Day Review	Program review with client Begin preliminary design FRIDAY MEET W/CLIENT	Complete preliminary designs Preliminary design review with client Identification of design element strengths	Final design responsibilities identification Design modifications Presentation charette Client design review
Technology alt's briefing Complete primary framing base doc's	Complete site survey; verify rough dim's primary framing; utility survey Technology teams begin final spec's & cost anal. Begin structural analysis-consultant Complete CAD prime frame input	Provide tech briefs to class	Preliminary subcontractor meetings Begin supplier specs outline
OCT 3 - 7	**OCT 10 - 14**	**OCT 17 - 21**	**OCT 24 - 28**
Final design review with client Design development decisions primary: finish materials, equipment; cabinetry; lighting; HVAC; plumbing; electrical	Complete design development including draft specifications; Begin Code verification	Complete: Construction documents Specifications Complete Code verification Construction management schedule Contracts Preparation Tool acquisition plan Primary material orders prep Final utility connections plan	Final Bidding / pricing Preparation of final client presentation
OCT 31 - NOV 4			
Client project review Client decision			

DESIGN PROCESS: PHASE I

Individual Design

Individual Featured: Amanda Fritz

Design Objectives

This design is based on the idea of achieving dynamic spacial organization through utilizing the vertical circulation as a core to connect floating overhead planes to the main level. The spirit of this design stems from the positioning of those upper level spaces -- the creation of overlap rendering a mixture of low and high ceiling planes below.

A second important element of this design is the positioning of the kitchen. The divergence of the kitchen geometry from the structure of all other spaces on the main level emphasizes the importance of this space. The Shidelers love to cook and frequently entertain dinner guests. They voiced the opinion that this was the most important space in their home. This design attempts to convey this idea.

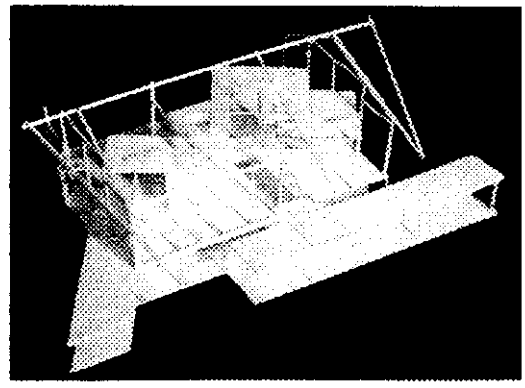
Zoning of the design organizes the private spaces to the east -- a position allowing the penetration of morning sunlight into the bedroom spaces. In that Tony and Suzanne consider themselves to be mornnig persons, both have expressed this as a desire. The public spaces then are situated more towards the southwest affording wonderful views of the pond (the majority of which is located just southwest of the existing structure).

The formal entry for the residence is located on the mid-south side forcing one to enter on the lower level into a dramatic space open to the rafters. An exterior trellis on which vegetation would grow provides an overhead plane one must pass under to enter this "front door". Once inside, one then catches a glimpse of the soaring height and intricacy of the web of existing structure overhead.

The main circulation axis created by the positioning of the entries opposite each other (on the north and south) is emphasized through the use of floor materials that create a gridded appearance. This is true for the upper level spaces that overlap this entry axis as well. The gridded floor material in the kitchen is utilized to emphasize the space's contrast in orientation from the surrounding structural grid.

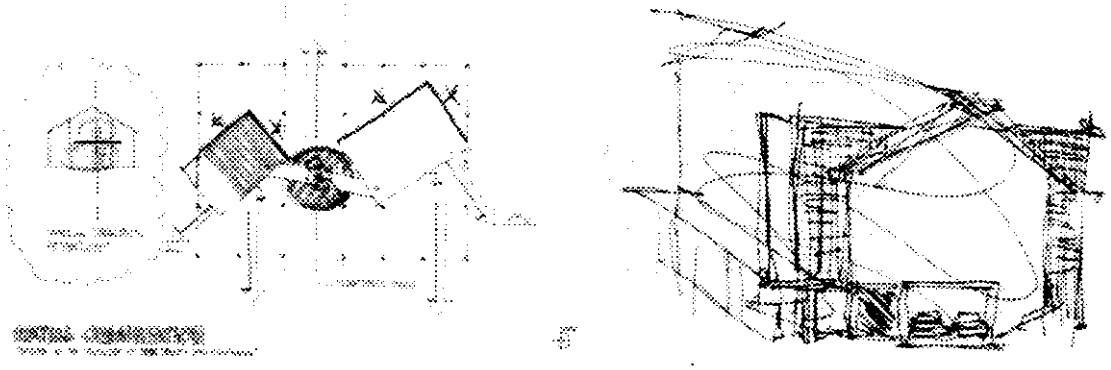
The plan is fairly open in nature in regards to the living spaces. This accomodates the Shidelers' desire for ease of interacting with guests while in the kitchen. The kitchen becomes almost a focal point as it sits alone as a somewhat enclosed geometry in this end of the residence.

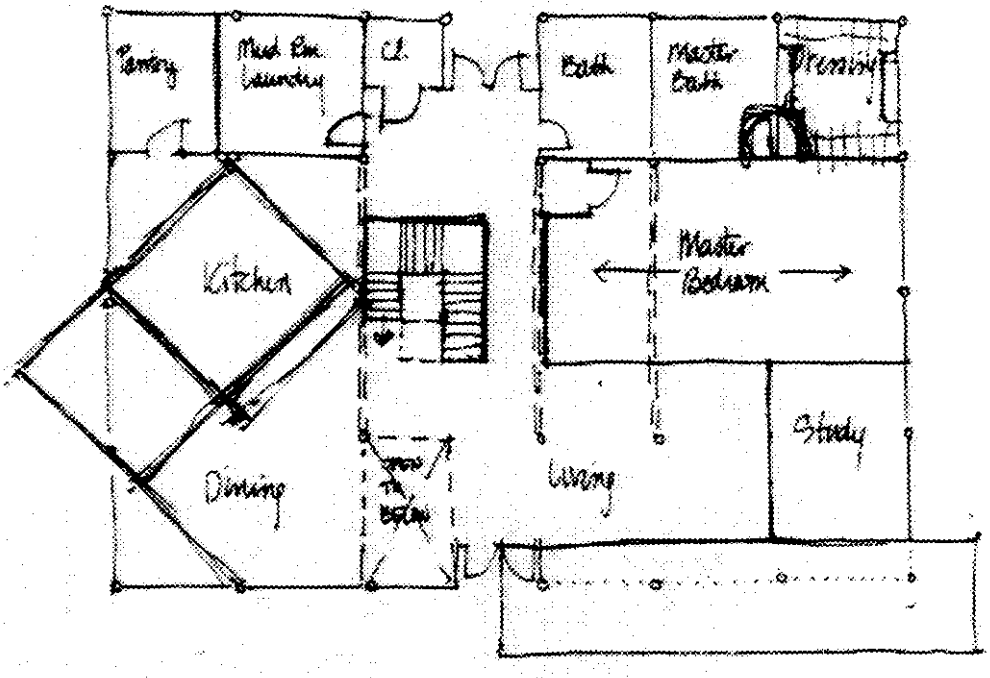
Decks are incorporated in the design for outdoor activity/entertaining that may filter outside from the living spaces. Porches are provided on the lower level for activity that may filter towards the pond area. Both aid in connecting the residence to the site.

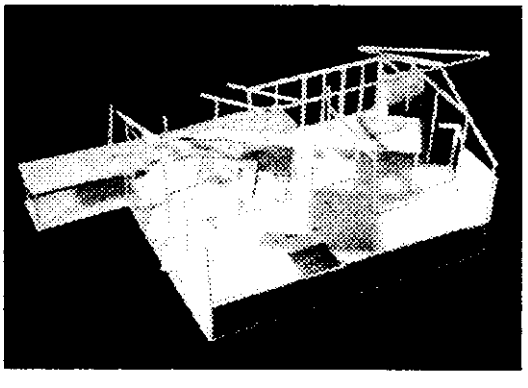


Model: Individual Solution viewed from Southwest.

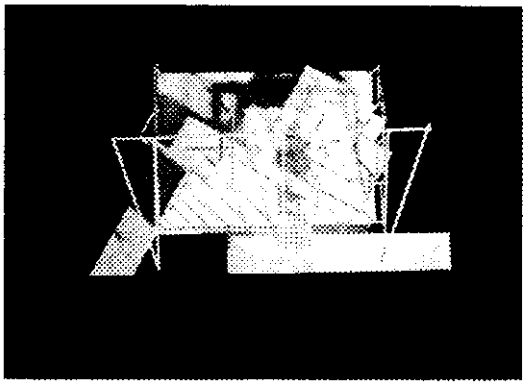
Development Sketches





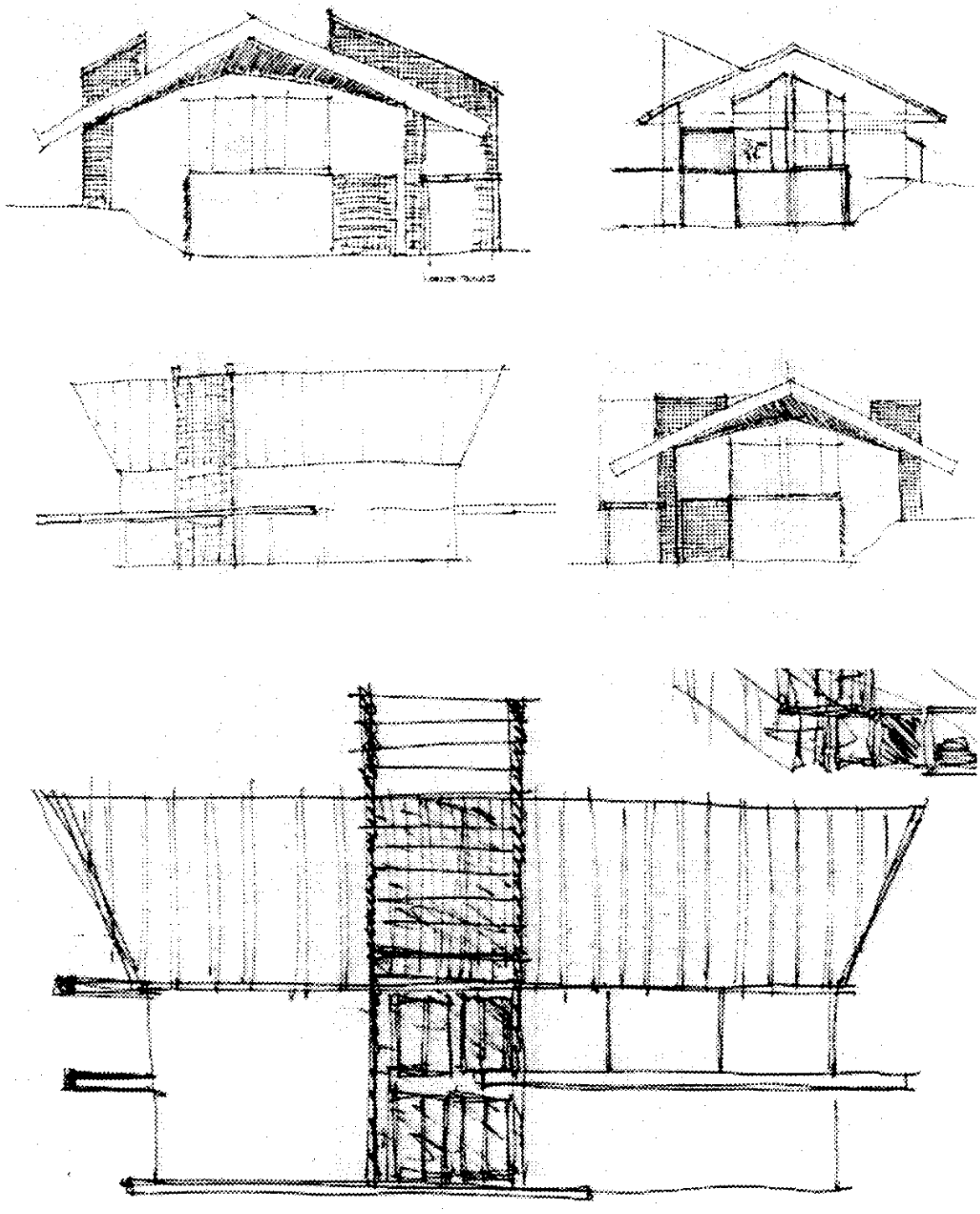


Model: Individual solution viewed from North-east.

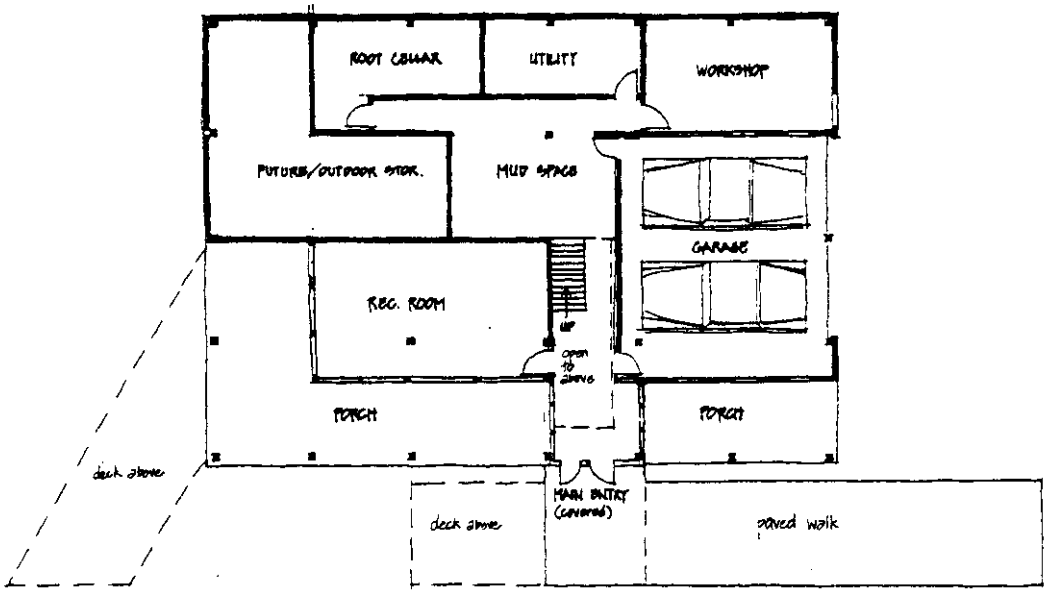


Overhead view of model.

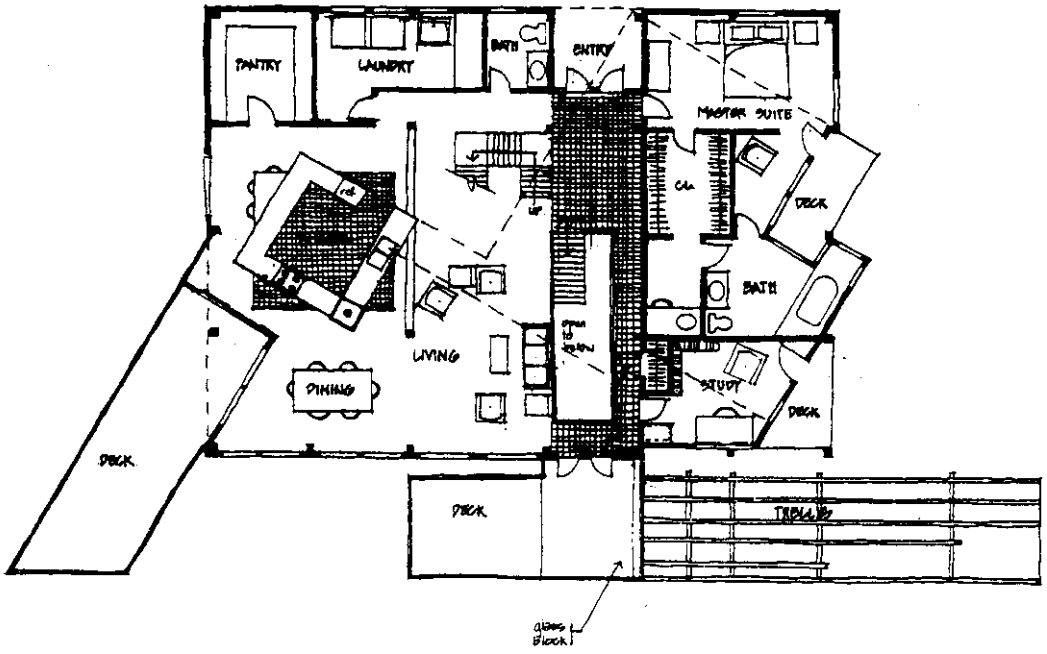
Below: Elevation studies of the manner in which to express this circulation axis in turn defining the entries on the exterior.



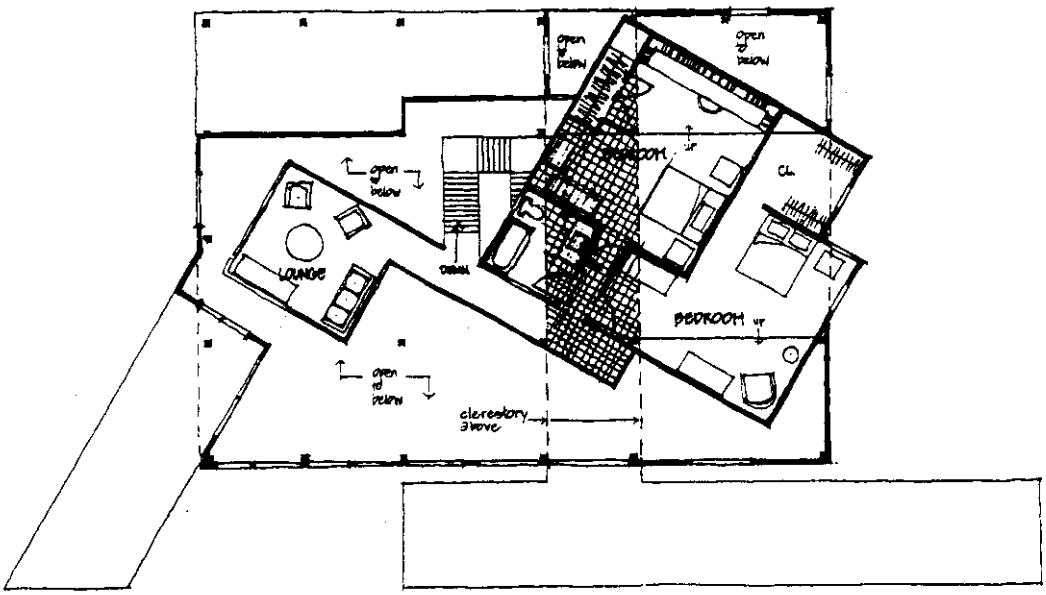
Floor Plans.



LOWER LEVEL



MAIN LEVEL


open to below
open to below
open to below
LOUNGE
open to below
clerestory above
BEDROOM
CL.
N

UPPER LEVEL

DESIGN PROCESS: PHASE II

Team Design

Team Featured: Tim Macy/ Amanda Fritz

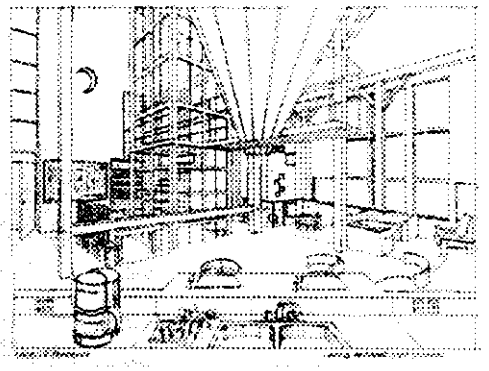
Design Objectives

This design carries through many of the ideas present in both my and Tim's individual designs. The utilization of the floating plane is still somewhat present -- manifest here in the form of catwalks in addition to the loft space located directly above the kitchen.

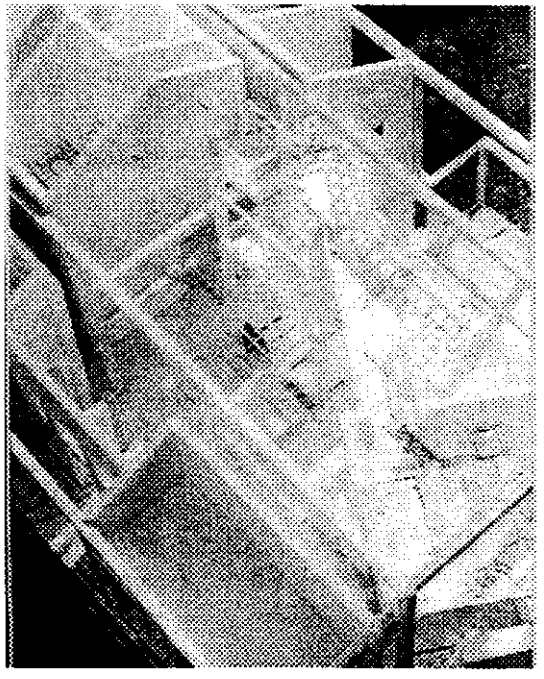
The kitchen is again offset and pushed through the perimeter of the structure revealing its skewed form to the exterior in turn emphasizing that particular space.

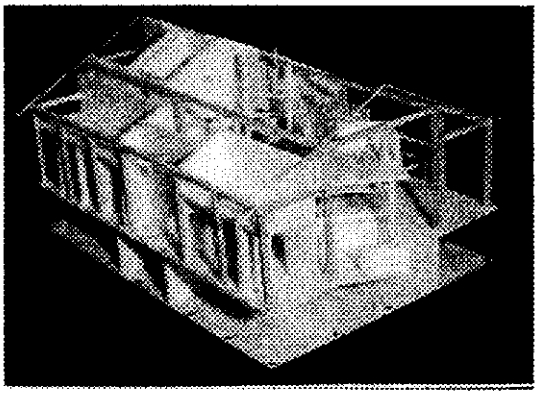
Additional characteristics of this design include the interior garden in the lower level as an entry foyer which is overlooked by the living area above. Also, this design pulls the dining space behind the stairway to a more enclosed or confined area in order to convey a greater sense of intimacy for family dining. The creation of a small reading area on the west side of the wall that divides the master bedroom from the living areas is an attempt to further this need for some variation in microclimate -- the idea of providing a greater number of intimate spaces.

The circulation on the main level is important in the scheme as well. The design utilizes windows to terminate each end of the two major axes. This allows more daylight to enter these spaces and creates a connection to the landscape as well as do the decks off of the living and master suite areas.



Above: perspective view from kitchen with the catwalk running overhead.

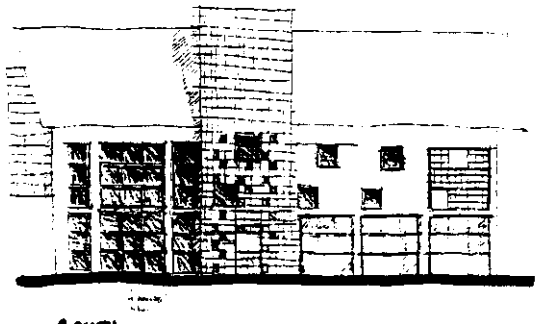


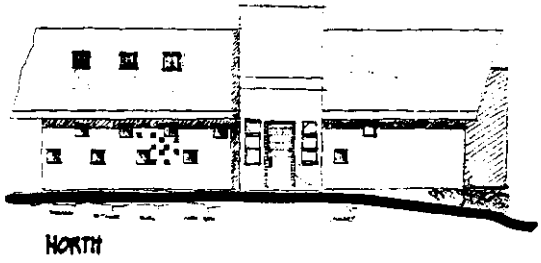


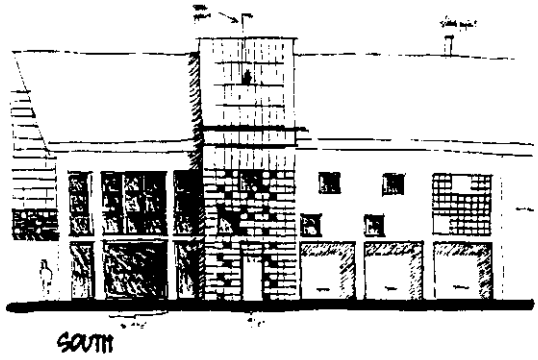
Model: team solution viewed from Northwest.

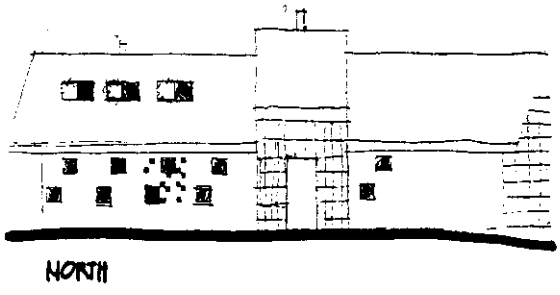
Development Sketches

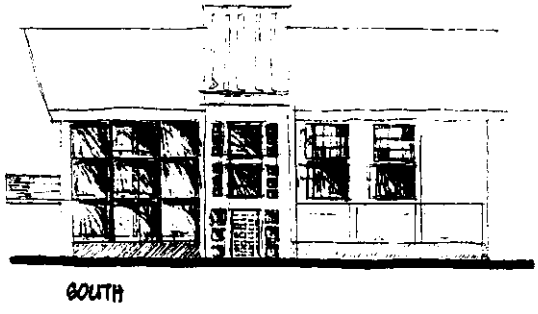
The following is a series of elevation studies utilizing the organizational tool of fractal geometry -- in combination with consideration to the interior spaces -- in the positioning of fenestration.

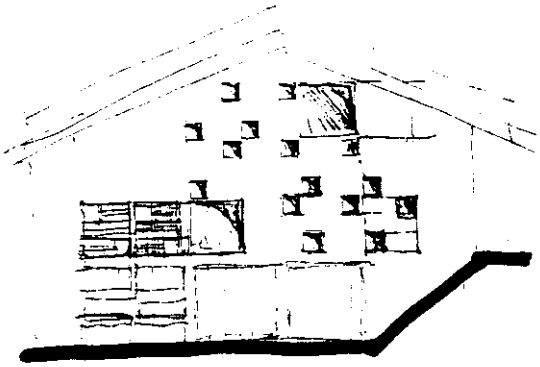




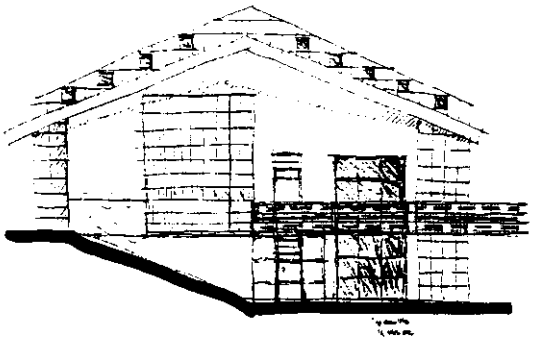








EAST



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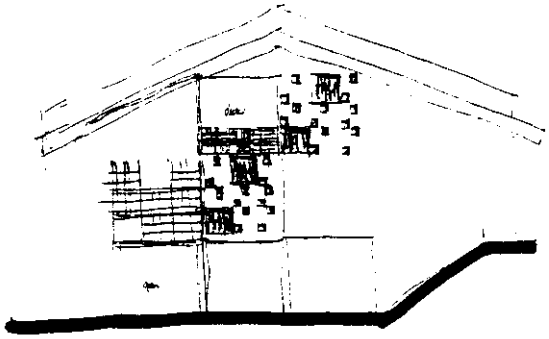

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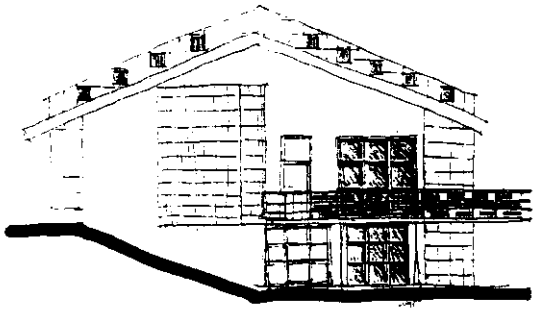
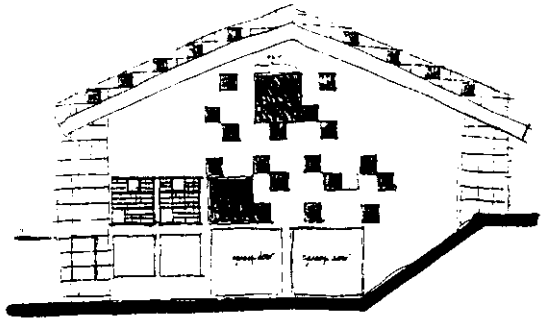
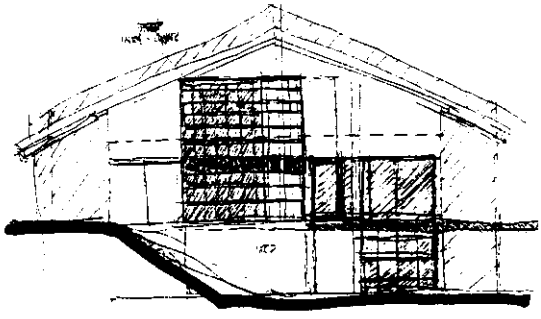


WEST

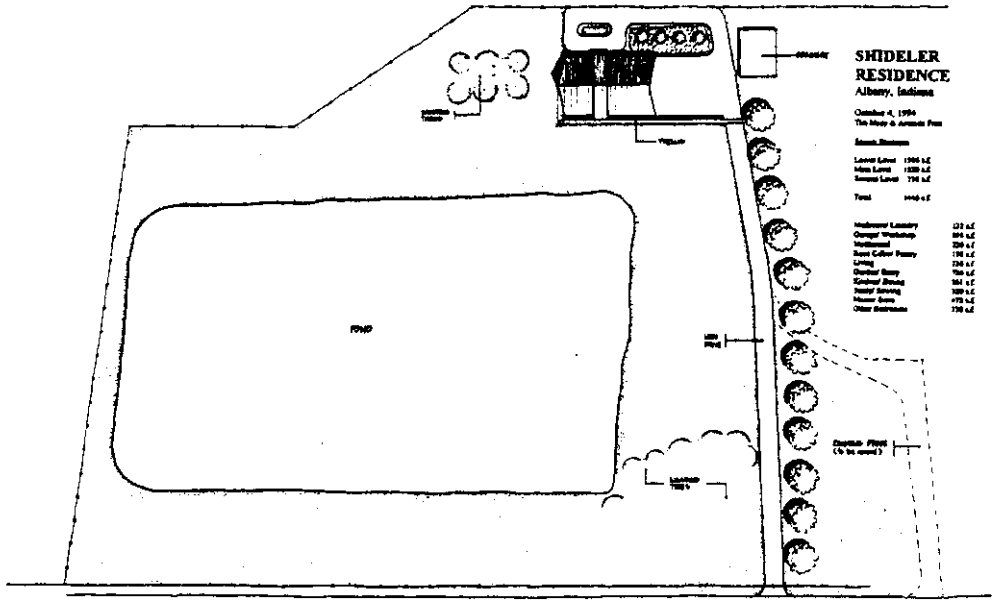


EAST

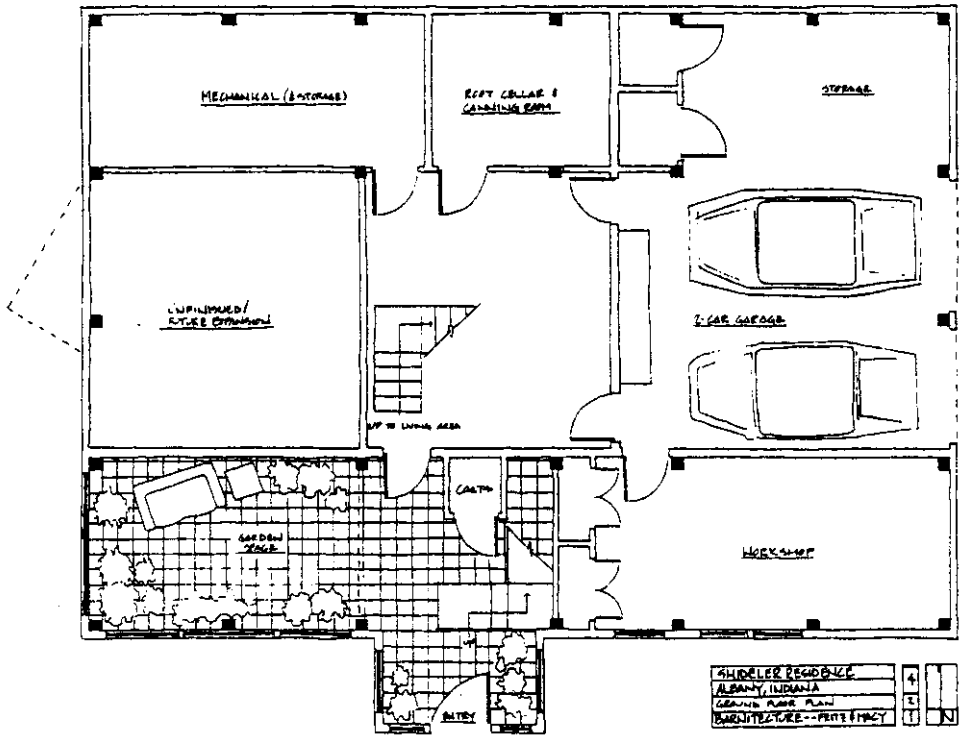


WEST

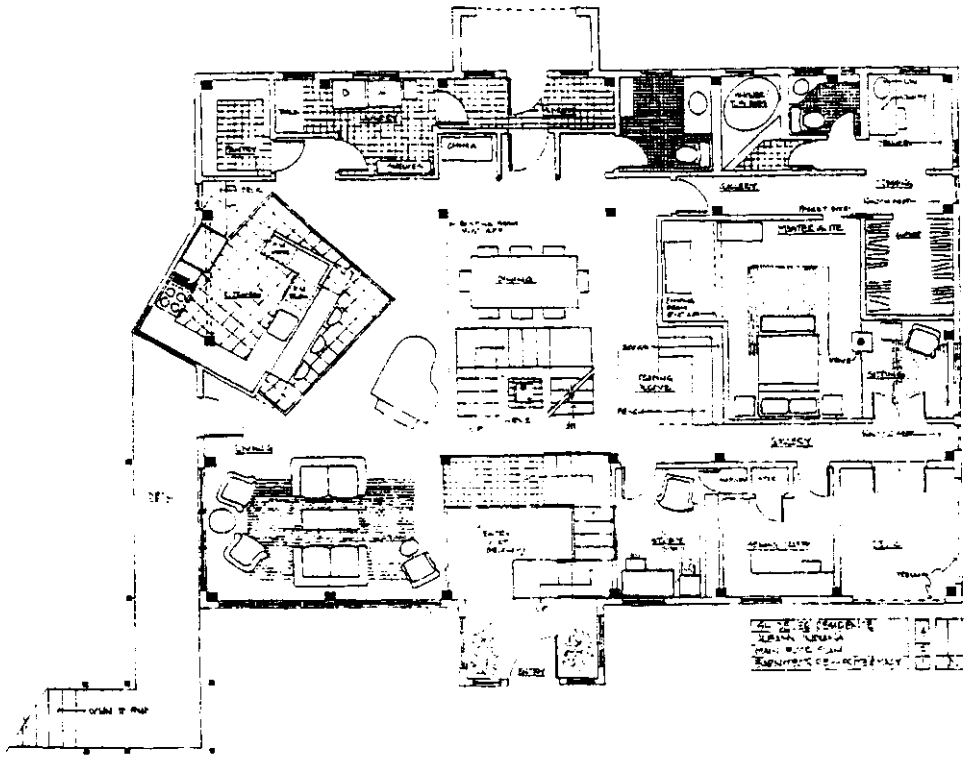
Plans.



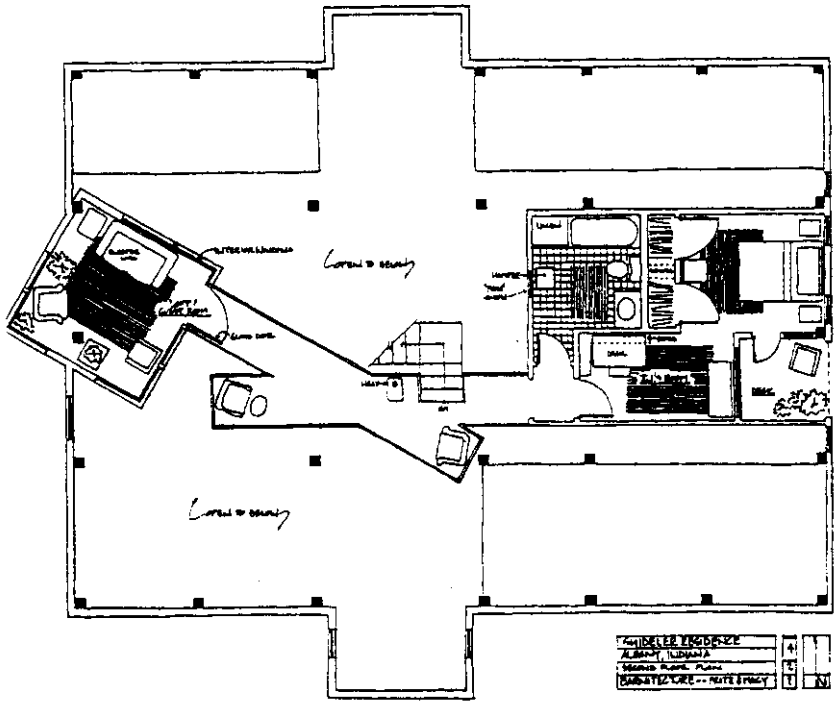
SITE PLAN



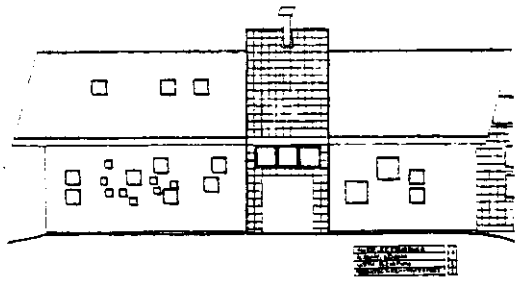
LOWER LEVEL



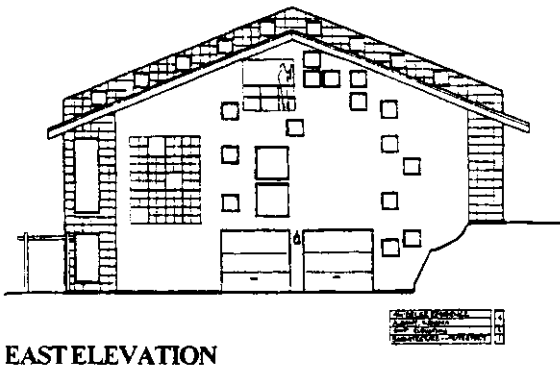
MAIN LEVEL



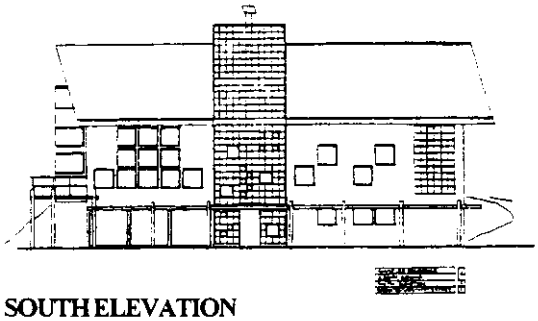
UPPER LEVEL



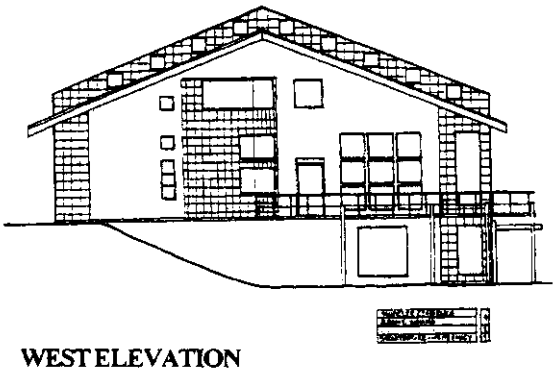
NORTH ELEVATION



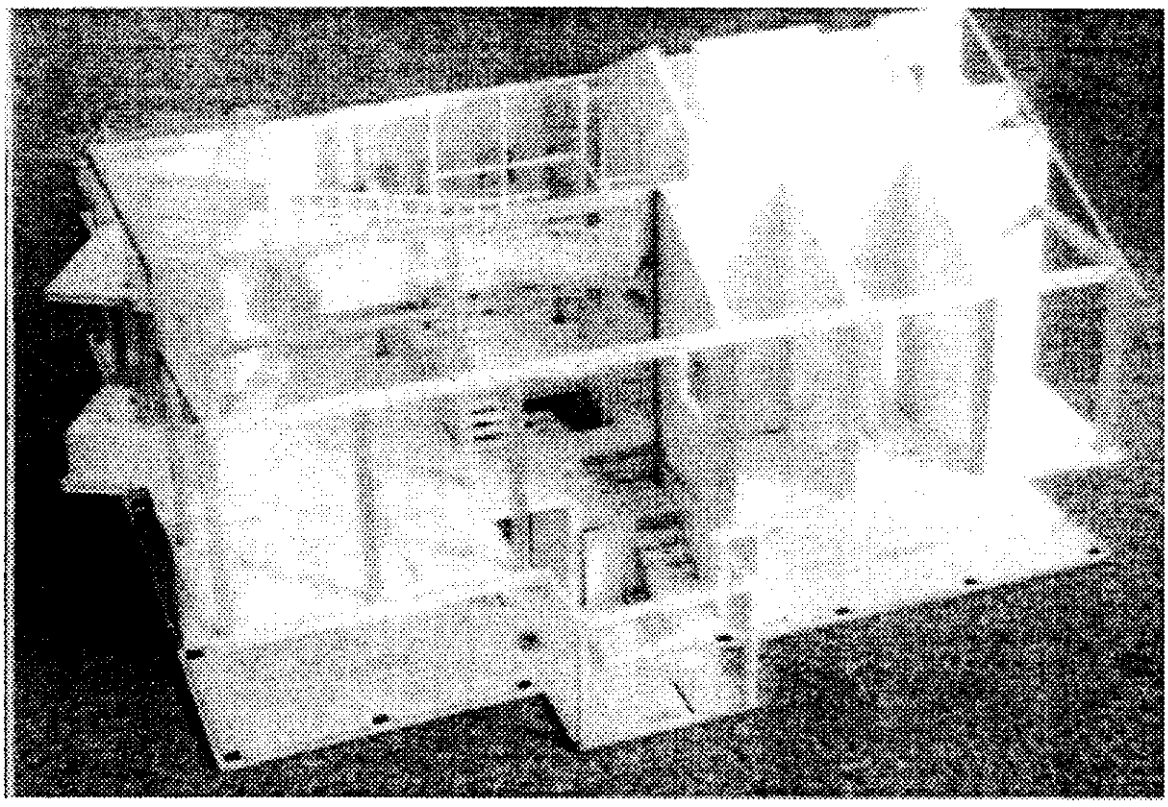
EAST ELEVATION



SOUTH ELEVATION

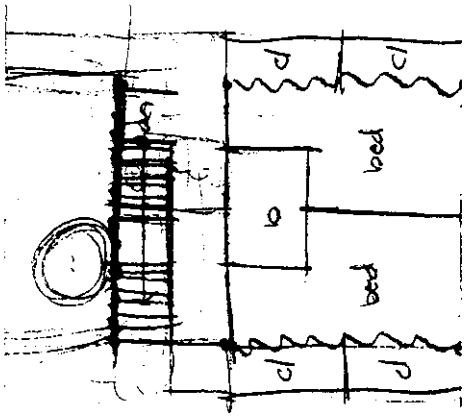


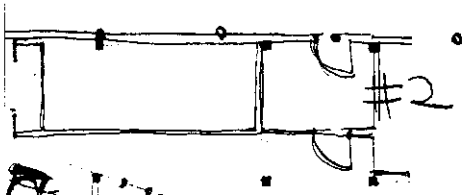
WEST ELEVATION

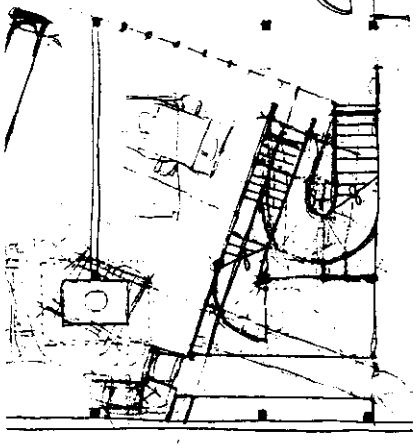


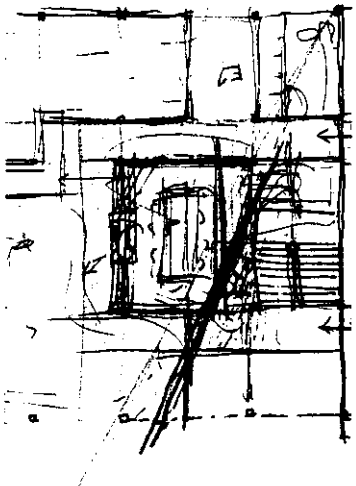
Model: team solution viewed from Southwest.

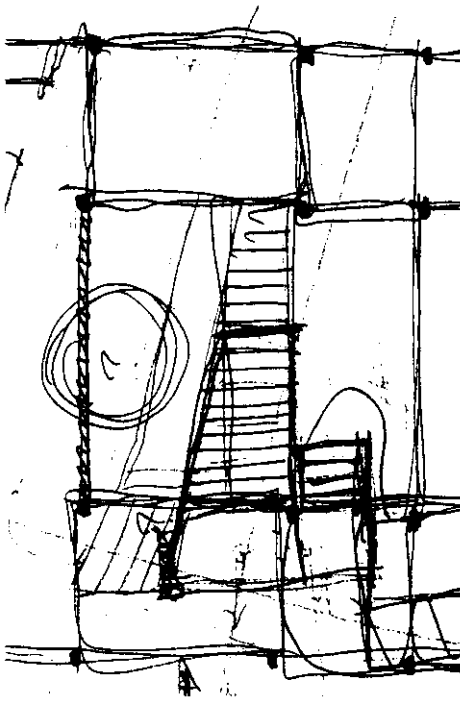
Below: Stair studies from both the lower to main and main to upper level stairs.

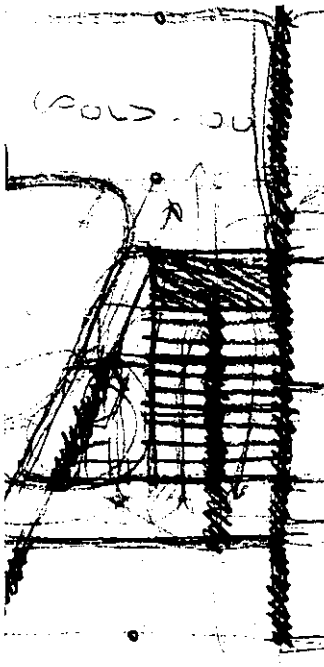


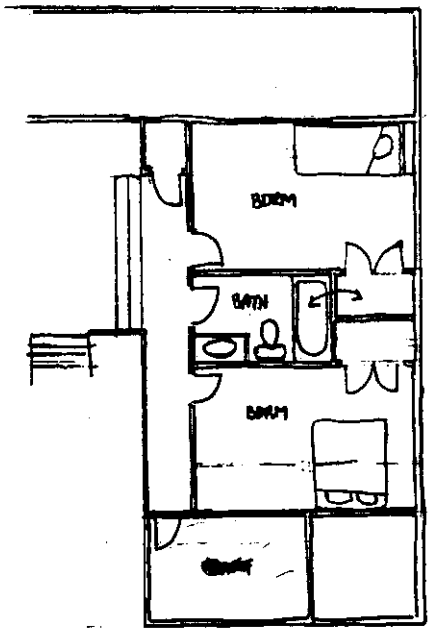




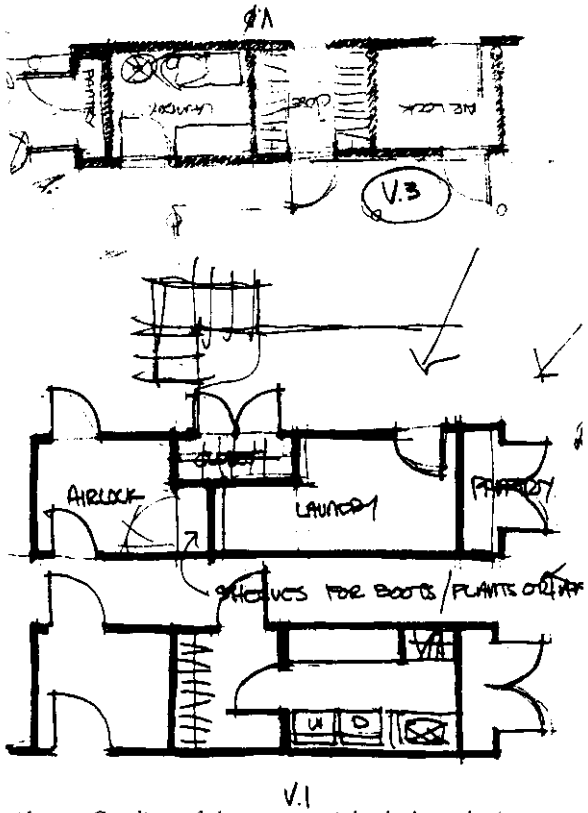




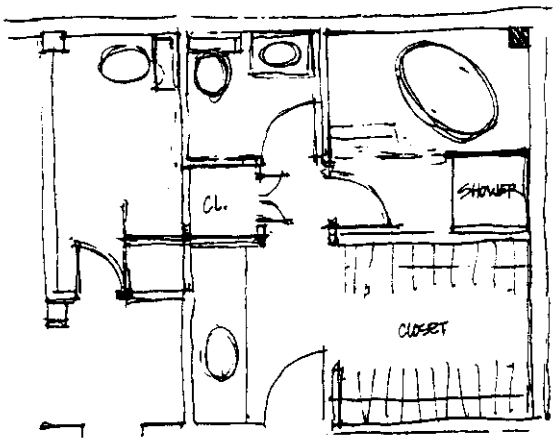


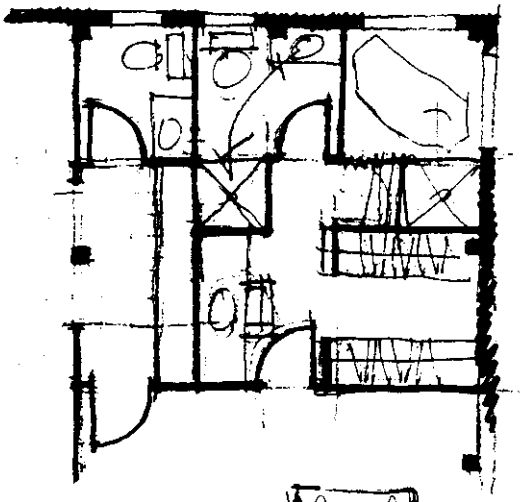


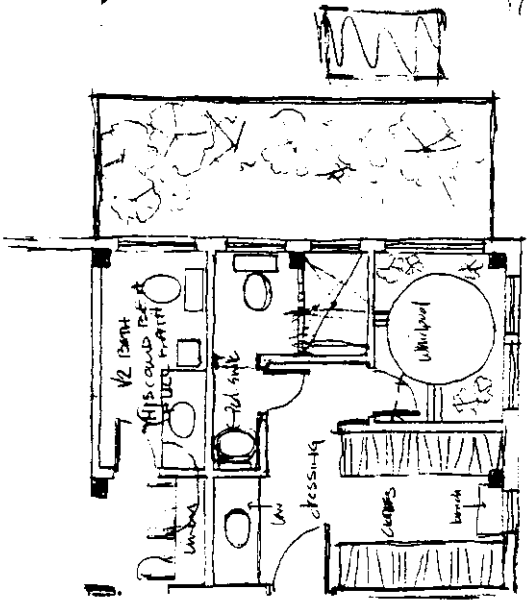
Above: Study of upper level bedroom, guest bedroom, and bath area.



Above: Studies of the entry, airlock, laundry/ mudroom areas.







Above: Studies of the master bath/dressing area.

Elevation Studies.