

Taking Turns: A Conversational Approach to Ecological Design

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[Abstract]

Better integration of human cultures and ecological communities is needed to sustain the health of people and the land. The inherent difference between concepts and things themselves, and the cultural disconnection between intellectual-conceptual and physical-material work, are implicated in environmental problems. Landscape designbuild is an opportunity to reconnect words, actions, and the land, to set convincing, practical examples for clients to follow, and to foster a mutually beneficial ‘culture of habitat’ (Nabhan).

A collaborative home and landscape design project was undertaken with a family of three. Fieldwork involved a variety of interactive design techniques combining dialogue AND direct experience. The project ended with the completion

of a conceptual design but did not reach construction stage before the close of fieldwork.

‘Embodied conversation’ describes the design process, characterized by alternating modes of interaction, turn-taking, negotiation of differences, and emergence of meaning and purpose. This approach heightened participants’ awareness of their environment and generated a variety of useful design ideas, but better procedures were needed for moderating the pace of interaction and for making durable decisions.

By balancing dialogue and direct experience, a ‘conversational’ approach to ecological designbuild work can help participants make sense of and use of their habitat in a way that reconciles human needs with ecological functions.

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Preface.

The reader may benefit from several points of advice regarding this thesis.

First, this document is formatted for use as hardcopy. The section of illustrations called the Graphic Timeline may be pulled out and used concurrently with the Annotated Timeline.

Second, it is necessary to shine the spotlight squarely on the researcher for a moment. The events which led to my involvement in the design of a house primarily, and a landscape secondarily, are touched upon in the Annotated Timeline. As is often the case, things didn't go as planned. I am neither a landscape architect nor an architect; I am a student. Therefore my impressions of design work and design as a profession are somewhat limited to and colored enormously by my experiences in school, pursuing a first professional and masters degree in landscape architecture. Although in my years here I strove to look beyond the pales of school, in the end this thesis is largely, inevitably, a personal

response to context and circumstances. This thesis is, first of all, a way for me to make sense of my own interactions and experiences with the world, and to imagine how I might practice landscape architecture. Whatever use others may find in this thesis must be considered, while not unintentional, an extra bonus.

While I fully acknowledge the subjective origins and intentions of this work, I also have the unfortunate and misleading habit, like many of us, of lapsing into generalizations and universalisms that suggest that other people must or should experience the world the same way I do. Obviously that is not the case. I tried to catch and correct sweeping generalizations in my language and thought in this work, but undoubtedly some 'universalisms' slipped through.

Third, a brief explanation of the format of this thesis may help readers find their way.

Because the philosophical starting point for this thesis is uncustomary to the researcher and perhaps to some readers, considerable space is given to describing the assumptions and approach taken in this project.

The methods are presented briefly as they were to prospective research participants, in a letter of solicitation and a menu of possible activities.

The results are presented as two different timelines, one of text and one of graphic illustrations. They are separated as two not because two different processes took place, but because they illustrate two different aspects of one process. The ‘Annotated Timeline’ of text is intended to convey the sense of continuity and the emergence of a variety of ideas and issues throughout the project, whereas the ‘Graphic Timeline’ of photographs and drawings depicts the sharp juncture in the material means by which participants engaged in the work. The design process showed both aspects, continuity and disjuncture. Also, by keeping the floor plans used in the Graphic Timeline in immediate succession, it is easy to see how the design evolved over the course of the last six months of fieldwork. It should be pointed out that the final design, though distinct in graphic style, is very much a part of the timeline. The final drawings are accompanied by a summary description of the design. The reader may pull out the ‘Graphic Timeline’ section to refer to easily while reading the ‘Annotated Timeline.’

ADVICE TO THE READER: The Results presented in the Annotated Timeline are wide-ranging and diffuse in the same way that the field work and data were - this even after severe selection and editing of field notes. To get a quick overview of the project, it is recommended that the reader **first read only the highlights of the timeline printed in bold.** Later, for a more complete - and messier - view of the project, entire entries may be read as desired. See the introduction to the Annotated Timeline.

The challenge of the research was, of course, to make sense of this exploratory project and the diffuse field data, which is attempted in the Discussion and Conclusions. The Discussion and Conclusion may be summarized by saying that the design process appeared to function like a ‘conversation’ in both the literal sense of verbal dialogue and the metaphorical sense of direct, embodied interaction. In fact it was the alternation and balance between these two means, verbal dialogue AND direct interaction, which was most constructive in sustaining the conversation. The Discussion is presented in six parts, alternating between commentary and field data. First is an essay on salient features of conversation relevant to design. The essay is illustrated by two examples from the

fieldwork, one a ‘portrait’ of one day in the project, and the other a limited selection of excerpts from the closing interviews. Each of these illustrations is accompanied by a brief commentary to connect the illustration with the discussion, i.e. to connect the field data with the notion of conversation. The desire is to present ‘whole’ pictures with explanatory ‘captions’ rather than cut up pictures and text to create a collage. The Discussion ends with a sampler of professional design work that bears similarities to the conversational approach, in order to put the thesis in a professional context.

The Conclusion presents ideas about where the conversational approach to design points, and what the issues, questions, and implications for design practice are.

Finally the following outline summarizes the argument presented in this paper, and may serve as an additional aid to the reader.

Outline to Argument.

1. The intention of this work is to look for ways to foster a ‘culture of habitat’ (Nabhan) through designbuild. ‘Culture of habitat’ may be defined as practices that address human health in connection with the health of the land.

2. The relationship between designbuild and a ‘culture of habitat’ is a reciprocal relationship, as expressed in Churchill’s famous saying, “First we shape our buildings, then they shape us,” repeated ad infinitum.

3. Meaning and design emerge out of practical interactions between people and their worlds, e.g. between people, each other, habitat, and land. This idea is in keeping with Lyle’s notion that ‘design is a learning activity’ and Dewey’s ideas about ‘learning by doing,’ notions aligned with the philosophical tradition called pragmatism.

4. The approach taken in this project was based on this notion that design emerges out of meaningful interactions. Therefore the project involved a variety of interactive design

techniques, emphasizing BOTH direct experience with things themselves (the interaction) AND the exchange of verbal dialogue and other renderings (the meaning-making).

5. The primary conclusion from fieldwork is: meaningful interaction does not require finding consensus or convergence of differences (differences as a spectrum ranging from different modes of work to different people to wholly different beings). Rather, it requires finding usefulness in the **alternation** of differences in a sustained, joint activity or relationship, as in ‘conversation.’

6. The alternation of differences takes place in several dimensions. For example, a) different participants take turns in conversation, and b) each participant alternates between different modes of interaction, e.g. intellectual modes and physical/material modes.

7. This paper highlights the alternation of differences and their contribution to meaningful interactions between people, each other, and habitat - interactions that are useful in design work.

8. A secondary conclusion from fieldwork (the opportunity) is: both dialogue AND embodied interaction in the design process, i.e. renderings AND direct experience with things themselves, help participants make sense of habitat much better than either alone.

9. Another secondary conclusion (the limitation) is: ‘embodied conversation’ can contribute to the design process but is not the sum total of the design process.

10. A design is not a conclusion, it is an emergent response in an ongoing conversation between differences.

Chapter One: Introduction and Problem Statement

It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I of course mean value in the philosophical sense.

Perhaps the most serious obstacle impeding the evolution of a land ethic is the fact that our educational and economic system is headed away from, rather than toward, an intense consciousness of land. Your true modern is separated from the land by many middlemen, and by innumerable physical gadgets. He has no vital relation to it ...

Aldo Leopold 1949 p.223

The broad purpose of this design project was to make a practical connection between landscape design/build work and an emergent 'culture of habitat' (v.i.). The idea was to explore practical means of design and construction by which people might engage directly with their habitat, with the intention of both improving it for human use and reconciling human activities with ecological functions, in a kind of practical mutualism.

More specifically, the purpose was to explore a variety of interactive design techniques meant to balance conceptual dialogue and direct, physical and material interaction. How and why these techniques were used, however, was as important as the techniques themselves. In short, they were used in a reciprocal or conversational fashion in an attempt to foster a relationship between client, designer, habitat, and the work itself, a relationship that may be described as interconnected, integral, whole, and healthy. The project, whatever use may be made of it, does not offer proofs so much as it offers this conversational way of looking at and approaching design work.

Ethnobotanist Gary Nabhan has observed how some traditional cultural practices, including some agricultural systems, are so integrated with non-human biota and landscape that human activity maintains or even enhances wild species diversity and ecosystem functions. He calls these practices ‘cultures of habitat.’

[Ecologist] Dasmann would call them ‘ecosystem peoples,’ but I prefer to speak of ‘cultures of habitat.’ The term ecosystem comes from the scientific tradition of identifying discrete but somewhat arbitrary units of the natural world as though each functioned like an organic machine. In contrast, the term ‘habitat’ is etymologically related to ‘habit,’ ‘inhabit,’ and ‘habitable;’ it suggests a place worth dwelling in, one that has ‘abiding’ qualities ... The term ‘culture’ may likewise be preferable to the value-neutral ‘people;’ ‘culture’ implies that we learn from our elders and neighbors a way of living in a place that is more refined or better adapted than our genes alone can offer. I am attempting to blur the traditional distinction between ‘nature’ and ‘nurture.’ (Nabhan 1997 p.3)

Thus a ‘culture of habitat’ involves deliberately interweaving ‘nature’ and ‘nurture,’ or in the case of landscape architecture, landscape design/build and the land itself.

The motivation behind this project, i.e. the ‘problem,’ was a concern that there is a pervasive *disconnection* in our culture between different modes of interaction with the land. In particular there is a disconnection between, on one hand, our intellectual conceptions and renderings of the land, and on the other hand, our embodied, physical and material work with the land. It is a gap between ‘preaching’ and ‘practice.’

Evidence of this is found in many arenas of society. One, for example, is the division of labor in the workforce, in which the intellectual ‘professional’ work of disembodied minds is separated from the physical work of ‘unskilled’ laborers’ bodies or machines. For example, leaders in the landscape architecture profession strenuously distance themselves from the image of a guy in a pick-up truck with earth-working tools in the back. Another is in the educational system, in which academic studies pertaining to the land are separated from experiences with the land.

Only through actually implementing a design does one begin to understand it. Since design students never actually implement their designs and are often separated from real-world concerns, they are starved for concrete experience. In other professions, including law and medicine, supervised fieldwork is part of the education. In these professions, academic theory and actual practice reinforce and complement each other. (Van der Ryn and Cowan 1996 p.149)

Yet landscape architecture education evidently involves enormous amounts of time working with renderings of land inside of buildings, and insignificant amounts of time working with the land itself. Time spent with the land is largely relegated to ‘extracurricular’ or ‘recreational’ activities outside of educational pursuits. A third disconnection is, ironically, a result of burgeoning technologies. Modern professional practice in landscape architecture seems to revolve around computers, not land. It is as though we have such an overabundance of very fine, sophisticated, complicated tools in our tool shed that we spend almost all of our working time cleaning, sharpening, organizing, rearranging, stockpiling,

exchanging, and upgrading our tools, reading tool manuals, learning all about tools and what we can do with them, that we don’t have time, we can’t even find our way out the tool shed door to actually go outside and dig in the garden, to go work with the land and BE with the land itself. In this way all our wonderful tools for engaging with the land only exacerbate our disconnection from the land, because they have significantly displaced direct interaction with the land. If Dewey’s maxim that we learn by doing is true, then we are learning a lot about renderings and technology and not much about the land itself.

In its simplest forms, it is a disconnection between renderings and things themselves, and a disconnection between words and actions. “There is a very high barrier between words and actions. Even if we just repeat ‘peace, peace, peace,’ peace will not come. We must do something for it,” said Najib Paikan, founder of the Youth and Children Development Program in post-Taliban Afghanistan (Christian Science Monitor 1/14/2002, p.8, “Afghanistan youths form a sort of YMCA.”) Without direct interaction or embodied engagement, our words and other renderings lose their meaning in connection with the land, even though their meaning and use as independent cultural artifacts may persist or even flourish: to

wit, commerce in country kitsch thrives while family farms and agricultural communities disintegrate under the influence of corporate agribusiness and globalization.

The goal, then is to “reconnect language to life” with “words confirmable in acts.” (Berry, 1983) It is to reconnect what we say with what we do, what we know with what we practice. The goal is not more information, it is better integration between thought, word, and deed.

The approach taken in this project, i.e. the inspiration for how and why various techniques were used in certain ways, draws from several allied schools of philosophy, especially pragmatism and phenomenology. Before explaining the philosophical approach, however, it is necessary to clarify how several key words are used in this project: ‘habitat,’ ‘land,’ ‘health,’ and ‘embodied.’

As explained by Nabhan (v.s.), ‘habitat’ refers both to a place of habitation or dwelling, and to the larger environment; thus it may be meaningful to architects and landscape architects alike. It is also used in the parlance of natural history, referring to the natural environment of a plant or

animal (Random House, 1975), and reminds us of the ecological significance of how we inhabit the land.

With similar ecological connotations, the word ‘land’ is used throughout this project in the sense that Leopold used it, to include the biotic or ecological community dwelling thereon. Manipulating the land, e.g. designing a landscape, is fundamentally an ecological act with systemic consequences reaching beyond the immediate site, for better or worse.

By invoking ‘health,’ no presumptions are made to define what form it may take in any universal or normative sense. I am referring to the function of any integrated system - an organism, an ecosystem, perhaps even a social system - to alternate between different modes of being, to undergo rhythmic phases of periodic tension and temporary resolution, to accommodate diversity in a common function, to respond to or recover from perturbations, to oscillate or interact in balance.

The practical means tested in this project were intended to be ‘healthy’ and ‘whole’ in themselves, deliberately accommodating alternating modes and different ways of being, with special interest in bringing reflective thinking and imagination face-to-face with engaged, embodied activity.

Lastly, in this paper, ‘embodied’ does not necessarily mean carrying hods and plowing fields, although these are worthwhile activities. It means direct experience and interaction with the material world as *whole human beings* with all of our faculties and capacities available, and it means experiencing and interacting with the material ‘thing itself,’ not only with human ideas and renderings of it. Yes, we understand and even perceive things in terms of words, ideas, and other renderings, but to do so as a whole person in the presence of the thing itself, toward the thing itself, in response to the thing itself, in interaction with the thing itself, is what is meant by ‘embodied.’ Whether some interaction is ‘embodied’ depends on what our intentions are. If we are talking about maps, maps will do. If we are talking about the land, maps by themselves won’t do. Maps AND the land are how we find our way in the world.

With these turns of usage in mind, we may now consider the philosophical approach or platform from which a certain perspective on the work may be gained. The platform includes roughly a dozen ‘planks’ borrowed from the philosophical traditions mentioned above.

Chapter Two: Approach and Methods

I. Philosophical Platform.

... truth must not be seen as an unmasking which eclipses the appearance of the thing unmasked, but a form of disclosure which does it justice... The world is never something finished, something which thought can bring to a close; the world is always in the making, and our thoughts, like our actions, have meaning only in relation to the practical and social life in which we are engaged... “The truth of an idea,” says [William] James, “is not a stagnant property inherent in it. Truth *happens* to an idea. It *becomes* true, is *made* true by events. Its verity is in fact an event, a process.”

(Jackson 1996 p.4)

Truth. From this perspective, truth is not denied, nor claimed, it is simply freed from captivity. It appears in various and fluid manifestations, not trapped in any one static sense, idea, or even thing. In whatever way truth transcends the vicissitudes of time, space, the material world, and daily life, we humans - so thoroughly embedded in that flow of time, matter, and energy - “know” it only by the means available to us as human beings. We may be said to live in the presence of truth unwittingly, by virtue of our existence, but to bring that truth to our wits is a deliberate, constructive, imaginative act. Truth is available to us as we live it, but it is available to our consciousness only as we imagine it. Words, ideas, beliefs, and so forth are provisional and pragmatic not for lack of truth in the world, but because they are human constructions. The meaning of any word, any idea, any theory, any ethic, arises from its use in negotiating lived relationships, relationships that are embodied with truth far more diverse and fluid than any representation in language can capture.

[This is a] style of thinking ... that associates truth not with static fact, but with the quality of relationship.

Ecologically considered, it is not primarily our verbal statements that are “true” or “false,” but rather the kind of relations that we sustain with the rest of nature. A human community that lives in a mutually beneficial relation with the surrounding earth is a community, we might say, that lives in truth ... A civilization that relentlessly destroys the living land it inhabits is not well acquainted with truth, regardless of how many supposed facts it has amassed regarding the calculable properties of the world. (Abram 1996,p.264)

Alternating modes, distribution of being, and ecological functions. In Western discourse a human being is generally thought of as an individual with a stable identity. Similarly we think of other kinds of beings as things with certain identifiable essences. There is, however, a less familiar way of looking at the world represented by the radical empiricism of William James, the pragmatism of John Dewey, the phenomenology of Martin Heidegger and Maurice Merleau-Ponty, the activity theory of Russian thinkers Vygotsky, Leont’ev, and Bakhtin (Star In Engestrom & Middleton 1998 p.297) and even the evolutionary theory of Darwin and the science of ecology. These show us a world in which being is always ‘Being-in-the-World’ and things are temporary ‘gatherings’ of the world (Heidegger), in which the self alternates between different modes of experience and ways of being (Jackson 1996 & 1998), in which any being is functionally distributed across relationships with many other beings. In other words, from this point of view the world appears less as a collection of individuals and more as a web of functional relationships in which the boundaries between individuals are blurry and the individuals undergo continual alternations and transformations. Jackson writes:

[T]he antinomy of “subjectivity” and “objectivity” ceases to be a problem if these terms are seen as indicative of the way human experience vacillates between a sense of ourselves as subjects *and* as objects; in effect, making us feel sometimes that we are world-makers, sometimes that we are merely made by the world. (Jackson 1996 p.21)

... Subjectivity has not so much been dissolved or denied but relocated. According to this “intersubjective turn,” selfhood is understood as a bipolar notion, arising from and shaped by ever-altering modalities of embodied social interaction and dialogue. Accordingly, what we commonly call “subjectivity” or “selfhood” are simply arrested moments artificially isolated from the flux of “interindividual” life. To echo quantum theory, the subject-object partition is an artifact of our interventional acts of *measuring* reality; in fact, selves are no more single existences than are atoms and molecules...

In emphasizing that reality is relational I do not intend any erasure of the notion of self as intentional agent ... “the *fons et origo* of all reality, whether from the absolute or the practical point of view, is subjective, is ourselves” [William James]. However, one must be careful not to conflate subjectivity or consciousness with any particular subject or self... [S]ubjectivity does not universally entail a notion of the subject or of selfhood as some skin-encapsulated, seamless monad possessed of conceptual unity and continuity. (Jackson 1998 p.6)

Being arises out of relationships with other beings in a mutually constructive (or destructive), interactional, ecological manner. The nature of these relationships is one of interaction, exchange, flow, and the temporary emergence and subsidence of beings.

Garrison discusses the work of John Dewey to expand the question of autonomous individuals and propose the notion of unified ecological webs:

Eventually, Dewey pushes his functionalism beyond simply describing “interactions” to a theory of “trans-actions” ... We do not so much inter-act with food, water, etc. as trans-act with it. Existence is an event that flows through us as we flow through it. We cannot think in terms of lumpy substances with simple locations in such an open and porous world; we can only think in terms of functions and events ... (Garrison at press p.3)

This interpenetrating flow is not, of course, unimpeded, effortless, and perfect, nor is overcoming resistance or impediments to flow permanent. There *are* differences in the world, there *are* distinguishable beings, however multifarious and/or transient they may be. Conceptual dichotomies may be overused and misused, but it is difficult to escape the sense that while from some perspectives connection, unity, and monism appear, from other perspectives tension, difference, and dualism (or pluralism) also appear and seem to inhere in being. It is difficult to escape the fact that, for life to continue, death must also continue; life for one requires sacrificing the lives of others. Here is trans-action within unity.

In fact, it is exactly the need to negotiate these dualisms, to bridge these differences, to resolve the tensions and contradictions even though only temporarily, which motivates the “live creature” to act. Dewey explains;

Every need, say hunger for fresh air or food, is a lack that denotes at least a temporary absence of adequate adjustment with surroundings. But it is also a demand, a reaching out into the environment to make good the lack and to restore adjustment by building at least a temporary equilibrium. Life itself consists of phases in which the organism falls out of step with the march of surrounding things and then recovers unison with it - either through effort or by some happy chance. And, in a growing life, the recovery is never mere return to a prior state, for it is enriched by the state of disparity and resistance through which it has successfully passed....
... Here in germ are balance and harmony attained through rhythm. Equilibrium comes about not mechanically and inertly but out of, and because of, tension. (Dewey 1934 p.13)

Differences motivate action and require negotiation through *inter*-action or *trans*-action - both materially (securing food, sex) and conceptually (communication). In addition, these interactions are the sites for possible match and mismatch, genetic replication and mutation, nourishment and toxin, communication and miscommunication, understanding and mistake. However, these qualities - e.g. communication and miscommunication - are not inherent properties; they are defined by context and usage, so that in fact genetic mutants may be better adapted, toxins may be valuable medicines in appropriate doses or even food for different organisms, and mistakes may become serendipitous discoveries. In other words, it is in the negotiation of differences between beings and the temporary alternation between tensions and resolutions where creation, adaptation, and evolution take place, in both the material and the conceptual world. In answer to the question, “What is creativity?” biologist Lyall Watson replies “the joining of two previously incompatible ideas,” while Heraclitus responds “the unlike is joined together, and from difference results the most beautiful harmony.” (Fletcher 2002)

Language. Several issues especially evident in human culture need to be addressed. One arises from the peculiarity of language. In order to be useful, words need to convey some sense of shared meaning, of mutual understanding. This commonality of meaning is, of course, rigorously defined in scientific discourse, but it is also continually renegotiated in each social act of dialogue (Alessandro Duranti, 1997). These meanings may be thought of as generalizations or categorizations about how we perceive or experience the world. No two snowflakes, people, acts of love, tastes of a peach, uses of the word “higher” are exactly alike, yet the usefulness of words like ‘people’ or ‘love’ to communicate depends in part on our social ability to generalize our experiences, to categorize what we experience, and to experience the world according to the categories we share. This ability is fundamentally social; it is not essential or functional in any sense outside of the ongoing negotiation of meaning in every act of communication. By categorizing the world in certain, somewhat arbitrary ways, language is essentially a two-edged sword; its function of generalization makes it both eminently useful for bridging differences through communication, and also woefully dangerous for deceitfully

masking or rendering us blind to differences. (Do we see ‘snow’ or do we see one of the many Eskimo distinctions of snow? Is it the kind of snow that portends life-threatening weather?) And successful communication is not guaranteed by common language, as words may mean different things to different people, e.g. ‘love,’ and definitions are essentially bottomless. So to the extent that we think we share a particular view of the world, we are also inclined toward a reckless optimism that we can communicate through language, and we are coincidentally inclined toward a fraternal blindness for alternative views.

In the way language mediates the relationship between humans and the rest of the world, it is also two-edged in another sense. Not only do we craft and use language to make sense of and engage with the world, our language also shapes us ourselves and our relationships with the world. It is not a neutral mediator. Abram (1996) tells a compelling story about how the relationships between humans and non-humans are structured by our language. Zimmerman (1985) also explores the mutually formative relationship between humans and language, explicating the works of Heidegger: “Man acts as though *he* were the shaper and master of language, while in

fact *language remains the master* of man. Perhaps it is before anything else man’s subversion of *this* relation of dominance that drives his nature into alienation,” writes Heidegger.

Garrison (at press) sums it up in the terse phrase, “Culture has us as much as we have it.” In other words, our language determines how we perceive and interact with things of the world to such an extent that we are ordinarily unaware of “things themselves” (Husserl), independent of our own conceptions and definitions of them. Our relationships with other beings are utterly swamped, drowned, in language, ideas, concepts, and other renderings of the world. Things themselves cannot be heard through the din of our own language unless we at times quiet our own internal chatter and create a silent space for them to ‘speak for themselves.’ Of course most beings don’t actually speak a verbal language, so we must use other avenues of communication. Embodied interaction is one avenue that may not guarantee that the ‘voice’ of the other will be heard, but it may provide opportunities.

Much of what has been said of language applies to other human tools, inventions, and creations as well. Regarding architectural design, coordinated functions and

structural forms are also in the process of remaking each other. Recall Winston Churchill's famous observation, "First we shape our buildings, then they shape us."

So to say that the world is available to our consciousness only through our imagination, language and culture is not to deny the reality of the world outside of human knowledge, experience, and existence. It is to insist that the world may not always reveal itself in ways intelligible to the human species, it is to recognize the incompleteness of our human abilities and our renderings of the world, it is to acknowledge the variety of experience within the realm of human possibility, and it is to respect the validity of being, of existence, of what may be called non-human. The dichotomy between "human" and "the rest of the world" is crude, and it is false to the extent not only that humans are thoroughly "distributed" over other beings, but also that other beings are distributed over us - or more exactly, through us. But it is a useful reminder of all we don't know and can't control.

The body. A third issue [an issue central to this platform but inadequately addressed in the field work]

concerns the body. Jackson and Merleau-Ponty, among others, explore how the body exists and acts on its own behalf.

This radical view of bodily subjectivity implies that meaning is not invariably given to activity by the conscious mind or in explicit verbal formulations. Meaning should not be reduced to that which can be thought or said, since meaning may exist simply in the doing and in what is manifestly accomplished by an action. As Merleau-Ponty notes, "My body has its world, or understands its world, without having to make use of my 'symbolic' or 'objectifying function'" This mode of understanding Merleau-Ponty calls *praktognosia* (practical knowledge)... (Jackson 1996 p.32)

Practical skills, know-how, a sense of what to do, are irreducible. The meaning of practical knowledge lies in what is accomplished through it, not in what conceptual order may be said to underlie or precede it.

In most human societies, knowledge is a matter of practical competence and sensory grasp rather than

declaration... Moreover the validation of knowledge is how a person actually behaves. “It is in action, not in contemplation, that knowledge is both gained and given expression.” (Jackson 1996 p.34)

At its best, this praktognosia is the working knowledge of a metal smith (Harper 1987) and the free play of a jazz musician (Nachmanovich), for example.

In his essay “Knowledge of the Body,” Jackson “argues for the necessity of recovering the original sense of the word ‘culture’ as denoting modes of practical activity in the man-made environment: cultivating the land rather than cultivating the mind ... [and] lays emphasis on patterns of bodily praxis in the immediate social field and material world.” He describes how mimesis, music, and dance in the initiation of young Kuranko men and women, which are “based upon a bodily awareness of the other in oneself, assist in bringing into relief a reciprocity of viewpoints ... a sense of levity and openness in both body and mind ... [which] makes possible an empathic understanding of others, a fellow-feeling, which verbal and cognitive forms ordinarily inhibit ... “

Inasmuch as these body practices are not preceded by any verbal definition of intention, they are ambiguous... [They] are therefore open to interpretation, and the meaning they may assume for either performer or observer is indeterminate. This indeterminacy is of the essence ...

It is because actions speak louder *and* more ambiguously than words that they are more likely to lead us to common truths; not semantic truths, established by others at other times, but experiential truths which seem to issue from within our own Being when we break the momentum of the discursive mind or throw ourselves into some collective activity in which we each find our own meaning yet sustain the impression of having a common cause and giving common consent...

While words and concepts distinguish and divide, bodiliness unites and forms the grounds of an empathic, even universal, understanding... Because one’s body is ‘the nearest approach to the universe’ which lies beyond cognition and words, it is the body which in so many esoteric traditions forms the bridge to

universality, the means of yoking self and cosmos.
(Jackson 1983 p.338)

My take is that words and concepts, because they *divvy* up the world into intentional, categorical *groups* or generalizations (the counterpoint here is crucial), have paradoxical functions as bridges and/or as barriers to communication and conviviality, and that their function depends critically on *how they are used in a specific context*, as a matter of social and ecological practice. Words out of context are not harmlessly impotent, they are rather dangerously reckless, the two-edged sword that cuts hither and thither rather than achieving a desired purpose. And the context that is so crucial is interactional, embodied experience. Whatever words or ideas a person uses to make sense of an interactional, embodied activity, all participants can refer to that activity as a common link. A corollary to this idea is that the more separation there is between our words and shared embodied engagement, the more brittle communication becomes.

Non-human beings. Embodied interaction or mere presence is not only crucial to the relationships between people and to the meanings of those relationships, it is also - perhaps even more - crucial to the relationships between humans and other non-human beings, animate and inanimate. Interaction with the world primarily through language and other renderings is filtered by our language, filtered by our concepts, so that only what conforms to our language and concepts 'reaches' us. Interaction with the world through direct bodily engagement, though not necessarily free of language, filtration, and predetermination, at least provides opportunities for the world itself to flow through and reach us in ways additional to or instead of language and concepts. While we don't have a verbal language in common with other non-human beings, we do have physical, material, embodied being in common. That is the link between humans and non-human Others.

The foregoing discussion is an attempt to shift perspectives from the enculturated dichotomy of mind and body to the notion of altering modes of experience of one functional body-mind, from the dichotomy of culture and nature to the notion of mediated interaction among beings,

from the dichotomy of human and other to the notion of mutual relationships and intersubjective achievements.

II. Leopold revisited.

What then can we make of Aldo Leopold's admonition that our educational and economic systems are headed away from intense consciousness of land, that we moderns have no vital relation to land? How can we redirect ourselves *toward* intense consciousness of, and vital relations with, the land?

Dialogue. Language is for humans a quintessential mediator, useful for fashioning experience out of existence, and nearly requisite for translating experience into consciousness. But "intense consciousness" suggests a kind of consciousness in which a person invests more than cognitive knowledge into the intention of knowing the land. (The cognate etymologies of "intense" and "intention" are at work here, as is the phenomenological tenet that all knowledge is intentional.) Helen Cixous offers guidance for how language might nourish an intense consciousness of one's relationship with land rather

than an instrumental knowledge of how to exploit it. She "celebrates ... a passive and open attitude toward life in which language is entered into rather than exploited."

This mode of passivity is our way - really an active way - of getting to know things by letting ourselves be known by them. You don't seek to master. To demonstrate, explain, grasp. And then to lock away in a strongbox. To pocket part of the riches of the world. But rather to transmit: to make things loved by making them known. (Cixous IN Jackson 1996 p.43)

In its simplest sense, this passivity is the quieting of one's own voice in dialogue in order to listen to the voice of the other, alternately with the activity of speaking. This is akin to Heidegger's notion that to allow for the presence of others, one must allow for an "absencing" of oneself, a clearing or opening in which the presence of the other may occur. It is akin to Parker Palmer's fine essay about education, "To Know As We Are Known."(1993) To foster relationships of intense consciousness, and to foster relationships in which its own function and meaning are perpetuated, language must be

practiced as dialogue rather than fixed as definitions. These dialogic approaches to knowledge are not exclusive of other forms of knowledge - eg. instrumental science - but they represent different viewpoints and therefore different views, different knowledge, and different relationships. One aspect of these approaches is that they encourage us to modulate our own language, our own voice, our own knowledge, our own determinations of the world, in order to let the world “speak” to us in its own way.

Embodied engagement. As argued above, the body is a vital link to others, human and non-human beings alike. It is a vital channel of communication or communion when words fail us, when words are inadequate to the relationship.

Heidegger saw it thus: “being” is actually “being-in-the-world.” Dewey saw it as trans-action within a functional unity. Being is an ecological function distributed over an ecological community of relationships.

It is scarcely surprising, then, that - in a culture which disconnects the life of the mind from the life of the body, which excels at making human determinations of the world and only reluctantly lets the world inform us, which values

“virtual” renderings of the world over the world itself - many people are estranged from the land.

‘Cultures of habitat,’ in which humans are *engaged* with each other and the land, are emerging. Ecological restoration work is one example in which bodily practice may be re-united with intellect, emotion, spirit, often economics, other species, and the land. Freeman House (1999) writes about such practice, including his own personal labors, in restoring the native salmon runs - and the ecological relationships which support a whole community of species, including humans - in the Mattole River watershed. His is a prime example of bioregional restoration in which cultural and ecological renewal go hand-in-hand.

Because human beings are part of this process of renewal and reproduction, restoration should break from a view of the moral, scientific and intellectual authority of the autonomous and isolated self. As members of communities, human beings should build a deep and lasting relationship with the natural life-support system. Hard work should be recognized as a necessary part of the restoration process. Bioregional

restoration means coming to terms with the meaning of work and one's labor in the community. As Richard White writes: "We cannot come to terms with nature without coming to terms with our own work, our own bodies, our own bodily labor."
(McGinnis1999 p.220)

Leopold's "vital relations," then, are not only a matter of intellectual attention; they are also a matter of bodily practice. It is a practice not entirely determined by the intellect. As in dialogue, it requires a balance between acting and pausing for a response, acting upon others and receiving actions from others, and alternating between various modes of engagement of body, mind, and other capacities. It is easier said than done; practice connects the saying and the doing. And neither dialogue nor embodied engagement are inevitable givens. They must be sought and practiced intentionally.

Purpose. In accepting Leopold's premise that intense consciousness and vital relations are requisite to a healthy land ethic, and in arguing that intentional dialogue is essential to intense consciousness, and embodied practice to vital

relationships, I have still left open the question, Why a land ethic? What purpose? What goal? The answer, I suggest, has nothing to do with any ultimate goal or desired end: it is not ultimate and final knowledge, not any unifying theory of physics, not the extension of human domination over nature, not the perfection of creation nor recreation of paradise. It is to realize a version of Henry Thoreau's famous line, "In wildness is the preservation of the world." It is to practice Gary Snyder's "practice of the wild." (1990) It is to recognize that human and nature are inextricably enmeshed, that wildness reaches into us and our culture at the same time that we extend ourselves into and over wildness, that we need each other to sustain life whose primordial origins and ultimate purpose we do not know, need not know, cannot know in any tidy intellectual sense. Our immediate purpose may be to put bread on the table; our ultimate purpose may be to "let 'er rip," to ride the wave of creation we are on, and bless it, without trying to control it. (To bless: to consecrate ... with blood.) Between these purposes, there is a lot of room for choice, contingency, and compassion. Jackson concludes,

The argument is for a view of Being as complex, ambiguous, and indeterminate. It is analogous to the argument ecologists make *against* genetically engineered and global monocultures and *for* indigenous biodiversity as the only effective way of sustaining life on earth. And it echoes the argument Michael Oakeshott makes in his famous essay on conversation. The task of science, he writes, is not to deliver us from the polyphony of Babel but to accommodate disparate voices, disagreeing without being disagreeable, as in conversation. (Jackson 1998 p.208)

House puts it this way.

Claude Levi-Strauss has observed, “In a world where diversity exceeds our mental capacity nothing is impossible in our capacity to become human.” If this claim is true, then the obverse corollary it presumes must also be true - that if natural diversity becomes simplified to the point that we can realize the deluded modern ambition of “managing” it from a distance, our

capacities to become human will also be severely diminished. As we engage directly the recovery of our shared habitats, we find ourselves in the embrace of the expansive community that offers the best hope of realizing ourselves as fully human. There is no separate life. (House 1999 p.217)

These conclusions are not feel-good slogans, they are hand-wrought, hard-won, ongoing works of labor, patient dialogue and hands-on practice “in the field”.

Bill McLarney, co-founder of the New Alchemy Institute, was once berated by a critic who couldn't understand why he was messing around with fish and algae and green goo when the really important thing in the world was love. Bill responded: “There's theoretical love; and then there's applied love.” ... and love, just as much as truth, shall make us free. (Amory Lovins IN Coates 1981 p.xx)

The purpose, then, is practical and timely: to save our own skins we have to sustain our worldly home of differences,

relationships, communities. If we can relax our grip on the questionable defense of external, stable “objectivity” and instead choose to *intend* to the web of intersubjective, interactional, ecological, and evolutionary relationships, where objectivity, fact, and truth don’t parade as royal inheritance but emerge from the test of dialogic, embodied practice with other beings, then we may be able to make room for ‘intense consciousness’ of Others and ‘vital relations’ with the land.

III. An approach to landscape practice.

The question for landscape architects is how can one’s work foster a land ethic, how can one engage in and cultivate intense consciousness and vital relations between oneself, other people, and the land?

The goal of this introduction was to outline an approach to landscape architecture practice which resists the disconnection of mind, body, and land, which resists the displacement of whole, lived experiences by abstract intellectual constructs (virtual reality) and instead accepts

altering modes comprising the “whole-human” experience. Ecological restorationist William Jordan observes, “The fault, we must acknowledge, lies on both sides of the divide. If scholars should spend more time in the field listening to practitioners, practitioners should probably spend at least an occasional afternoon in the library.” Neither Jordan nor Jackson advocate erasing the distinction between field practice and academic scholarship, but rather call for building “bridges” between different modes of experience.

The aim, as I see it, is not to obscure the boundaries, or to carry on as if they don’t matter, when in fact they do. The aim is to respect these domains of experience, then to take on the work of fashioning relationships between them.

This has never been easy work. And one reason it doesn’t get done is because of the way we think about it. As long as we think of the task of creating relationships as merely a matter of breaking down a wall and clearing away the rubble, we will never get around to the task of designing bridges. We will never invest the resources needed to accomplish this special

kind of work. And we will go on talking past one another, belittling each other, and missing out on what those on the other side might have to offer. (Jordan 2000 p.73))

Jordan's "domains of experience" are akin to Jackson's altering modes of experience. It is disingenuous to deny the experience of differences, differences between human and nature, differences between human beings, differences between modes of life within one person, differences between walks of life and ways of making a living. Yet different 'sides' call for bridges, connections that utilize the tension between differences and thereby allow beings to hang together, to cohere in relationship in a community web.

I am highlighting one such bridge that may be especially useful to the practice of a landscape architecture which aspires to a 'culture of habitat' and the cultivation of a land ethic. It may be called 'embodied collaboration.' It is a bridge with two piers: dialogue and embodied interaction (direct experience). Dialogue is closer to "intense consciousness;" it emphasizes the mutually informative, collaborative nature of interactive relationships, and the ways

in which we bring these relationships "to mind". Direct, embodied interaction is closer to "vital relations;" it calls attention to the life of the body in *all* its modalities, all its senses: intellectual, physical, emotional, spiritual, and so forth, and urges us to take seriously the use, value, and health of all these capacities of the human being and the "live creature." Embodied experience is essential as the bedrock companion to language, as a common link between individual meanings, and as the primary link between humans and others, non-human others, who emerge in the world but who do not speak our language of words. Both dialogue and embodied engagement are necessary to support the imaginative and practical bridge of compassion implicit in a land ethic, the compassion needed to connect self and other, human and nature. Dewey, in his explication of "art as experience," explains:

Our own experience does not thereby lose its individuality but it takes unto itself and weds elements that expand its significance ... Only an expansion of experience that absorbs into itself the values experienced because of life-attitudes, other than those

resulting from our own human environment, dissolves the effect of discontinuity.

The problem in question is not unlike that we daily undergo in the effort to understand another person with whom we habitually associate. All friendship is a solution of the problem. Friendship and intimate affection are not the result of information about another person even though knowledge may further their formation. But it does so only as it becomes an integral part of sympathy through the imagination. It is when the desires and aims, the interests and modes of response of another become an expansion of our own being that we understand him. We learn to see with his eyes, hear with his ears, and their results give true instruction, for they are built into our own structure... (p.336)

Shelley said, “The great secret of morals is love, or *a going out of our nature* and the identification of ourselves with the beautiful which exists in thought, action, or person, not our own. A man to be greatly good must imagine intensely and comprehensively.” (Dewey 1934 p.349)

I believe Aldo Leopold imagined “intensely and comprehensively” and exercised his imagination in thinking about and working with the land around his shack in Wisconsin.

To the extent that landscape architects stimulate the imagination and practice of compassion between people and toward the land, it will fulfill its function as art and science, as a creative leap and a grounded practice, as an expression of mind-body-land. Embodied collaboration, resting on foundations of dialogue and embodied engagement, may be useful for building bridges between educators and students, practitioners and scholars, landscape architects and clients, and ultimately people and land, and help more of us move *toward*, rather than away from, intense consciousness and vital relations with land. Like ethnography, then, landscape architecture may be practiced as a “tool for conviviality” (Ivan Illich)

IV. Methods 1: Letter of Solicitation.

Are You Interested In Improving Your Garden, Landscape, or Land?

I am a graduate student at Virginia Tech looking for one or more people to participate in the design and construction of a **small landscape project**. You may be interested, so I am writing to explain the nature and purpose of this project.

I wish to engage with one other person or a small group of people who are interested in **developing or improving some aspect of their own landscape in an ecologically appropriate manner**. A suitable project may be, for example, to begin an organic garden, to create a small garden retreat such as bench place, to make a thoughtful path through the woods, to plant trees and shrubs for energy conservation, to create a children's garden, to develop a wildlife garden, etcetera. We will **work together closely** to develop a design and then actually plant and/or build it ourselves. Besides carrying out the landscape project, the purpose is to think about how our work contributes to our relationship with the land. I wish to document this experience and represent it as a narrative story - with theoretical reflections - in partial fulfillment of a master's thesis.

Of course the client/participant will have full control over the project. However, I will serve actively as an advisor, manager, and laborer throughout the design and construction process, providing helpful ideas, information, skills and tools for collaborative work, and recommending ways to proceed. My primary intentions are that we approach the work with **dialogue and collaboration foremost** throughout the project, and with **ecological principles in mind**.

To bring this about, below are some general ideas regarding the project. *Specifics will be discussed and negotiated at the beginning of the project and adapted throughout.*

Design and construction. To develop a design plan, we will engage in a variety of interactive design exercises such as studying local plant communities, taking photographs, sketching ideas, building models, and conducting two-way interviews. To build the project, we will all participate in the construction work as our abilities allow. We will, of course, develop a design which reflects our ability to build it.

Investments. This project does require an investment of time and resources. Most of the design work will take place this winter, and the construction and planting this spring and summer. Costs for materials will be discussed and negotiated, but labor is free. I expect to commit ample time, labor, and materials to the project to compensate the client for his/her participation.

Records. We will keep a record of the project through journals, photographs, an expense account, and occasional interviews.

Benefits and risks. Participants will benefit from the improvement of their own landscape, and from practice in landscape design and construction. Risks will be minimal, and participants will be free to withdraw from the project at any time.

With your help, I hope we can learn ways in which client and landscape architect can come together to build constructive and healthy relationships with the land.

I hope you are interested! Please contact me at ...

IV. Methods 2: Menu of Workshop Activities.

PRACTICING A “CULTURE OF HABITAT” THROUGH DESIGNBUILD.

A series of workshops featuring embodied collaboration to build connections between design, construction, client, landscape architect, and the ecological community.

Get to know home place.

Photography.

Mapping - conceptual and topographic.*

Taking ecological inventory: species, resources, culture, personal contributions, and collaborators.

Clarify long-term goals, immediate objectives, practical needs, and cultural alignment.

Photo elicitation and interviewing.

Compiling design vocabulary in words and images.

Playing a sort of pictorial: sketch dialogues.

Generate design ideas.

Brainstorming.

Field trip.

Working with *A Pattern Language* to enhance design vocabulary.

Conceptual modeling (sandbox and/or plan models).

Refine and select design ideas.

Drawing.*

Building scale models.*

Reviewing ideas, critiquing, reiterating.

Test design ideas.

Building scale models.

Building full-size mockups.

Building vignettes.

Build and refine design ideas.

Undertaking construction project.

Adapting design as project proceeds.

Track process and experience.

Photography.

Audio journal.

Sketchbook and notes.

* The primary responsibility of the landscape architect

Chapter Three. Results

I. Annotated Timeline.

This timeline marks especially significant dates in the course of the fieldwork. Each heading includes the date, kind of interaction, with whom, where, what time of day, and principle activities. Each heading is followed by a selection from field notes for that day, to give the reader a sense of when various issues arose and how the project unfolded. Roman font denotes condensed summaries of field notes, *italics denote verbatim passages* from field notes and transcripts with minor editing for clarity. **Bold print marks information essential for a quick overview.** Many entries also include a status report on two issues of design selected to illustrate how features of the design evolved; the selected features are the location of the ‘front door’ entrance and the location of the fireplace. These reports appear in Arial Narrow font.

ADVICE TO THE READER: The Results presented in the Annotated Timeline are necessarily wide-ranging and diffuse, a reflection of the fieldwork. However, **to get a quick overview of the course of the project, it is recommended that the reader first read only the highlights in bold print.** Later, upon reviewing the Discussion and Conclusion, the reader may return to the Annotated Timeline to read in greater detail as desired. Also, the reader may find it helpful to pull out the ‘Graphic Timeline’ section (see below) to refer to easily while reading the ‘Annotated Timeline.’

19 DEC 00. MEETING with my Matt Bewell, my apartment, morning.

Despite 4 inches of new snow and an hour's drive from rural Giles County, Matt did come for breakfast after all. **Matt Bewell works for the university community and had helped me establish contacts for an earlier studio project. I told him about my new plans for a thesis project: to do a small landscape designbuild project in close collaboration with clients, to study the use of both dialogue and direct experience with the land in doing design work. I asked if he knew anybody who might be interested. He replied that he and his family might be interested.**

27 JAN 01. MEETING with the Bewells, the Bewell farm, afternoon and evening.

I visited Matt, his wife Sally, and their 3-year-old daughter Robin at their farm. (See Figures 3.1 and 3.2) We went for a walk around the farm, made supper together, and talked into the night. I explained my plans for a designbuild thesis project and described some of the activities that could be used to carry out the project. Matt and Sally said they were interested, but their first priority

was to build a substantial addition to their house, an addition that would roughly double the size of their existing, 625-square-foot house. Sally raised two questions: Would they have time to fully engage in my thesis project, and would it be possible to include their daughter in the work? My conclusion was that, while I would leave the Bewells to design their house, ideally the house design and the landscape design could be integrated. We agreed to think it over for a couple of weeks before deciding whether to work together.

30 JAN 01. MEETING with two advisors, campus, an hour each.

I met individually with two of my three academic advisors. *My main advisor (landscape architect) seemed fine with the prospect of my working with the Bewells. He said it could be an appropriate project, and suggested that I offer to participate in the design of the house addition in integration with the landscape. He said that if things “blow up in my face,” there is still something to be learned from that. He seemed really warm to the project, and that boosted my excitement and hope.*

The other advisor (anthropologist) said that in the context of committee meetings *it would be better to focus on the “concrete” aspects of the research - participants, methods, product, etcetera - rather than on philosophical ruminations.* He asked, “*Will you learn what you want to learn if the project goes awry, say, if you don’t get to build anything, considering how important “embodiment” is to your argument?*” He also reminded me to begin record-keeping immediately; the research had already begun.

02 FEB 01. MEETING with third advisor, campus, an hour.

I met with my third advisor (botanist). *He said he thought maybe he should go out to the site with me. He needed to do that to make better sense of the project. That made me smile ear-to-ear. That’s EXACTLY the approach to design I believe in: “being there” in any way possible. He said he could probably tell something about the soil, geomorphology, history of the land, etcetera. THREE CHEERS. That’s exactly what I want to learn from him.*

16 FEB 01. MEETING with Matt, the Cellar restaurant, evening.

I met one-on-one with Matt over beer to talk about his goals for the farm, both in the long term and in terms of the thesis project.

In speaking of the farm, he used terms like “*a community, NOT a retreat, a place to practice, a model, lots of people, people as positive agents of health and beauty in nature, ecological restoration, an invitation to nature, health and healing.*”

In terms of the project he said he wanted me to help him make the addition to the house “permeable” to the flow of nature and natural resources through the house, both in a practical sense (firewood, garden vegetables, laundry, etc) and in a broader, experiential sense, inviting nature to be present as part of the household - like encouraging robins to nest outside the window. He drew diagrams to illustrate.

06 MAR 01. MEETING with advisor, campus, an hour.

Don’t let any one issue drive the design.

11 MAR 01. WORKSHOP with the Bewells, the farm,
several hours.

Photo Elicitation and Inventory Walk.

In mid-February I had given Matt three disposable cameras, one for each member of the family with the request that each person take photographs of features of the farm and house that were personally significant. (See Figure 3.3) Today I asked each person individually to talk about a selection of the photos, to help me understand the farm as he/she saw it. I tape recorded these “photo elicitation” interviews.

I had not known beforehand which photos were whose. Interestingly, the photos I attributed to Matt were actually Sally’s, the photos I attributed to Sally were actually Matt’s, and the photos of a child’s world, which were so good in quality that I thought one of the parents must have taken them, were in fact taken by 3-year-old Robin herself.

I wasn’t the only one surprised, as the interviews revealed:

Pete: Is there anything you’d like to say about your selections?

Matt: I don’t know how conscious I was in doing this , but it seems like all of my photos are in explicit relationship to the house. So other places that are special to me, like the garden, are not very well represented here. I didn’t go out to the far end of the garden, which I really like, and get that. I was just trying to develop connections between the house and areas that seem separate from the house.

P: In anticipation of this project?

M: Yeah

P: [to Sally, at the conclusion of Matt’s interview] Any follow-up comments that you want to make?

Sally: As I was looking at your photos, Matt, I was just surprised that the garden wasn’t there, and the bird feeder wasn’t there, and the things that you spend a lot of time and focus on outside weren’t represented. So I was glad you talked a little bit about that, because to me some of the things that I see as being really important to you around the periphery of the house weren’t represented ...

It was just interesting to me because your perspective was really an external perspective looking back at the house, kind of. And my perspective was definitely an internal perspective

looking out at the things that were closest to the house. So I think that will come out, that our perspectives are really different. It was just interesting for me to see that. It's neat. It doesn't surprise me because you're much more ... I mean, that makes sense, with the way that we live on this land.

M: [with humor] Yeah, you feel cooped up in the house ...

S: Yeah! Right! So ...

P: But the interesting thing is that for both of you, the connection between the house and the landscape is important, whether you're out there looking in or in here looking out.

S: Yeah. It's the same space we're looking at, we're just looking at it from a different side.

Currently the Bewells park primarily on the terrace of land above the house or on the west side, and enter the house through the 'back door' and utility room on the west side. The west wind is a significant factor on the site.

12 MAR 01. NOTE to myself, journal.

Be careful with the notion of 'design concept.' What is the design concept of an Appalachian woods in spring? What if there is none?

13 MAR 01. MEETING with Sally, the Cellar restaurant, evening.

I met one-on-one with Sally over supper to talk about her goals for the farm, both in the long term and in terms of the thesis project.

She said that she chose the farm life as a way of "choosing health," deliberately seeking out a healthy environment to live and work in. But she said that her relationship to the farm had changed considerably. When Matt took a job in town, "working on the farm alone was not as satisfying as working together with Matt." She realized she needed more contact with people. Now she spends several days a week studying art at Radford to enhance her computer work.

In terms of the project she said she wanted help figuring out ways to connect the old house with the new addition, and ways to accommodate visitors and a growing family so that the family could carry out their various responsibilities in close proximity to each other, and so that when occasions arose, it was easy to make plenty of room for social gatherings and music-making indoors and out. She drew diagrams to explain.

31 MAR 01. WORKSHOP with the Bewells, the farm,
midday.

Ecology Walk.

**Today the Bewells, my ecology advisor, and I took
an extensive walk over much of the Bewells' property,
trying to understand the ecological significance of the site.**

My advisor was particularly interested in the relationship between the vegetation and the geomorphology of the land. He pointed out indications that the Bewells' farm seems to occupy a transition zone between sweet-soiled lowlands which support persistent pasture, and acidic uplands which quickly revert to scrub and woods, indications such as plant species, landforms, location of springs, etc. Matt pointed out animal tracks and paths. When we found tracks in the soft earth lifted by the roots of a wind-thrown tree, he quizzed Robin about who made them; Robin responded by pressing her own hand into the earth, lifting it to reveal a small print, and saying "Me!" Sally talked about the semi-wild apple trees (e.g. one variety called "White Horse"), cherry trees, cane berries, and spring bulbs (e.g. "Pheasant's Eye"). I was excited to see Pennsylvania sedge in bloom, oatgrass in the woods (both potentially useful

natives for landscaping), an unfamiliar species of St. John's wort, and a wide variety of other flora on the farm.

It struck me later how we each had our own ways of finding interest in and engaging with the land, but we could share them with each other and still derive our own meanings in the common activity of the walk.

06 APR 01. MEETING with academic committee, campus.

Today was my first committee meeting with all three advisors together.

Advisor one: "Have you sufficiently equipped yourself with the means, the analytical tools, to chart your way through the swamp of research?"

Advisor two: "It's ALL embodied!"

Advisor three: "How are you going to balance your expectations of the clients, for the purpose of research, with their expectations of you, for the purpose of design?"

14 APR 01. WORKSHOP with the Bewells, the farm,
afternoon and evening.

**Sketching Over Photos, and Building Cardboard
Models.**

**Today Matt, Sally, and I each took a turn at two
work stations, one to sketch his/her ‘best idea to date’ for
the house addition using trace paper and photographs of
the house (See Figure 3.4), the other station to build a
quick, rough model of his/her “best idea” using cardboard
and wooden blocks (See Figure 3.5). Then we used our
sketches and models to present our ideas to each other.
Robin drew colorful designs on a roll of bond paper using
felt pens, favoring pink, and then explained her ideas to us.**

Even though we had a chance to sketch ideas before the workshop, it was surprisingly difficult even for me to sketch and build a model so “extemporaneously.” The work elicited lots of questions about design. When we compared the three different models, the idea of “building an addition” - heretofore regarded as a simple, shared notion - was cracked wide open, and the scope and complexity of the project was revealed more clearly.

Sally: [along with favorable comments about Pete’s model] My initial impression is probably that this is too small.

Pete: Too small?

S: [to Matt] What do you think?

Matt: Depends ...

Discussion clarified what we were undertaking. The Bewells’ estimated that the addition by itself needed to be about double the size of the existing house, much larger than I had previously understood, and they intended to relocate the kitchen and other core functions there. Even if the design program had been clear in the minds of the Bewells beforehand, it was very much an emergent discovery for me as we made models, drew ideas, and talked about them. The project was growing considerably in size and complexity.

Regarding the entrance, Pete suggests routing the driveway to the east side of the house where the existing ‘front door’ is located, reviving that as the main entrance, and letting the new addition unfold behind it. Sally’s model places the entrance on the north side, entering into a multipurpose entranceway room in the connector between the existing house and the addition.

In the discussion, the fireplace is linked to the kitchen to form the 'hearth' at the heart of the house. Sally is also interested in facilities for outdoor cooking and food processing.

10 MAY 01. SURVEY with help of classmate, the Bewell farm, all day.

Today, with the help of a classmate, I undertook a locational and topographic survey of about ¾ acre of land around the existing house, including the garden and upper terrace but not including the barn and other outbuildings above the lane. (See Figure 3.21) The Bewells did not have time to participate.

14 MAY 01. WORKSHOP with the Bewells, Blacksburg, morning.

Walking Tour of Hillside Architecture in Blacksburg.

Today, a gorgeous spring day, Sally and Matt came to my apartment, whence we embarked on a walking tour of the Highland Circle neighborhood to look at houses and landscapes and study the various ways in which architects,

builders, and home owners addressed the problem of building on steep slopes, and other design issues.

... I believe that Matt and Sally both found things of interest on the tour. On the way back, Matt said something about how helpful it was to see real-life examples rather than a book of 253 "Patterns" [I think he was referring to Alexander's A Pattern Language]; unfortunately I let this comment get lost in the flow of conversation and didn't pick up on it as I should have. I definitely felt like the walk was interesting and helpful and stimulating to them, and helped spark some creative thinking, response, interaction ... although I may have played the "tour guide" a little too verbosely.

We look at and talk about a variety of entrances and about the connection between house and auto parking.

17 MAY 01. WORKSHOP with the Bewells, the farm,
evening.

‘Sketchbook Open House’

Plans to do trial layouts outdoors were scrubbed due to rain, so we held a ‘sketchbook open house’ to show each other what we had been thinking, and we used trace paper and the newly surveyed topographic plan of the site to sketch out floor plans.

Sally said that while vacationing recently in Florida she had noticed how the combination of open doors and screened walls at her lodging provided a sense of fresh air and connection to the outdoors. It reminded her of my cardboard model from the April 14 workshop, featuring a ‘dog-trot’ inspired penetration through the house.

Matt said that he had noticed how the windows at Gillie’s restaurant were detailed, with deep sills, because he had been reading *Timeless Way of Building* and Alexander had a name for it: “window place.”

Both Sally and Matt remarked that they had been thinking about pedestrian bridges and noticing entranceways since the tour of Highland Circle several days before.

I was delighted that the Bewells were noticing features of the built environment and linking them to workshop activities.

I also felt good about this evening because there was a little more courage in both Matt and Sally to venture ideas, questions, and concerns without their worrying about criticism and without their having to make final judgments. And ... seeing some comfort and freedom in them to sketch and doodle for each other as a way of explaining ideas was really exciting for me. It made me think it might be worth trying ‘sketch dialogues’ for the next workshop. [We never did.] Sally said she brainstorms much better with other people, tossing out and responding to ideas, rather than trying to brainstorm solo, by herself.

I left them with a copy of *A Pattern Language* to peruse.

Matt and Sally say they have been thinking about and noticing entranceways a lot more since the walking tour of Highland Circle.

24 MAY 01. WORKSHOP with the Bewells, the farm, evening.

Trial Layouts and ‘Sketchbook Open House.’

Today Matt, Sally, and I used tape measures and survey flags to lay out, roughly, our three best floor plans on site. We also checked elevations using a Philadelphia rod and hand level. Robin asked if she could borrow a selection of blue and orange flags to decorate a nearby dirt pile.

Before Matt could join us, Sally said she had some questions, so we walked around the house outside, looked, and talked. *She said she had spent some time outside earlier in the day to think about things, and decided that maybe the wedge-shaped space between the existing and proposed structures was a bit too odd and cramped for an outdoor dining terrace. I heartily affirmed her observation, one that I had been thinking about myself but withheld comment because we were still just beginning, feeling our way along. But she discovered it by herself, which is even better. ... Then she said she also had reservations about routing auto traffic to the east side of the house. (I would like to know exactly why, but I agree that the east side is a special, green place and may be better left*

uncompromised by traffic. I am glad Sally gave the idea consideration but I think her instincts are good.) So we went to the upper terrace to look around and see if there were any alternatives. Just as an idea was forming in my head about approaching from the west, Sally said that she had long considered the possibility of creating a driveway from the far garden gate heading back to the house, i.e. approaching the house from the west!

Sally expressed how helpful it was to lay out our ideas outdoors. Matt seemed a little more enthusiastic to show me ideas from his sketchbook - *good* ideas.

Sally rejects idea of routing autos to east side of house and prefers idea of approaching from the west, so main entrance may shift to west.

In his sketchbook Matt shows the fireplace located on the south wall of the addition, with curved alcoves on either side.

30 MAY 01. WORKSHOP with the Bewells, the farm,
evening.

‘Sketchbook Open House.’

‘The Wedge’ is introduced (See Figure 3.9).

Plans to do ‘sketch dialogues’ were scrubbed because we ran out of time, but today the Bewells and I had a freewheeling, easygoing conversation over ideas we had sketched in our sketchbooks. Matt had sketched mostly floor plans, Sally mostly elevations and perspectives *I commented on how gratifying it was to see the creative flow of thinking, the brainstorming, that was so constructive at this stage. The idea of a supernova came to mind ... I felt like we were very much in the expansion phase, and that was fine ...It occurred to me, as my advisor said might be the case, this project has a pace of its own.*

. I was amazed by how Matt and I had been pondering similar issues and experimenting with similar solutions. *When Matt raised the issue of “positive outdoor space” I was inwardly ecstatic. I mentioned that I thought that was a key pattern for our project, and that it was the very pattern I wanted to work with in ‘sketch dialogues.’* But we ran out of time to do sketch dialogues.

In The Wedge design, the entrance is located in the crook of the house between two wings, facing northeast, to be semi-protected from the wind and be close to the kitchen.

In the Wedge design, the fireplace is located at the elbow of the house to the southwest, with masonry and open hearths both indoors and outdoors, for indoor heat and outdoor cooking.

06 JUN 01. WORKSHOP with the Bewells, the farm,
evening.

Sand Cast Modeling.

Prior to the workshop, I made a plaster mold of the site at 1/8-inch scale based on the topographic survey plan. Also prior to the workshop, each person gave me sketches of his/her ‘best idea to date;’ from these I drafted scaled drawings and built simple scaled models of three different houses, one for each person (Matt, Sally and me). At the Bewells, Robin helped me moisten and prepare the sand-and-peat mixture for casting. Matt, Sally, and I each took a turn making a topographic cast of the site in the sand, positioning his/her model on the cast, and explaining his/her ideas to the others. (See Figure 3.6) Robin embellished the models with pieces of fern and other

greenery. We tried to format the discussion in terms of consequences pro and con.

The activity elicited lots of questions, comments, and difficulties coming to grips with various issues, especially the discrepancy between one's detailed ideas and an approximate model, and how the building would sit on the site and tie into the existing topography. Sally focused on trying to keep exterior doors on all sides of the building 'at grade,' minimizing steps outdoors even if this meant steps or stepped floor levels indoors. Mike focused on defining outdoor spaces for specific uses, such as morning coffee and summer suppers outdoors. I focused on trying alternative positions of the house in relation to the terrain, with the house either following the contours or pushing into the upper terrace. Although we had a sand cast model of the terrain, our attention remained focused hard on the house itself, with minimal manipulation of the terrain/landscape.

Sally studies ways to keep all entrances 'at grade' with no or few exterior steps.

09 JUN 01. NOTE to myself.

I'm trying to prepare for the big, concentrated workshop tomorrow ... struggling to make sense of what has happened so far and to figure out how to take the next step ...

*So far we have been practicing imagining various ideas, exploring and expressing them ... brainstorming ... Now we need to practice making **selections**, to see how the form evolves.*

*What are the means or mechanisms for making **selections** in the design process? What are the selective forces involved and how can we "operationalize" them in some semi-democratic fashion?*

So in a way, design is not just eliciting vision, not even conflict resolution, it is also learning what selective processes are in play, and inventing the means to mesh decision-making procedures with those selective processes.

10 JUN 01. ALL-DAY WORKSHOP with the Bewells, the farm, all day.

‘Power Spots’ and Selection Practice.

Today was a perfect spring day. In the morning we each sat solo at one of our favorite spots outdoors, then convened at each spot to talk about it and how the proposed house would affect it. The objective was to shift attention from the house to the larger landscape and consider how the house might enhance the landscape, like a hut in a Chinese landscape painting. (See Figure 3.7)

In the afternoon we practiced making selections. The idea was to start with one of the ‘best ideas to date’ ... to pursue it more thoroughly, to make choices rather than letting decisions float, and to see where choice-upon-choice led us. Our means of exploring the ‘best idea’ were to be any or all of the methods we had tried to this point. We began by using tape measures and flags to lay out the floor plan for The Wedge design, but we eventually brought in the rod and hand level to study elevation, the sand cast model, the topographic survey plan, and sketches to show each other ideas. Key issues were keeping the roofline as low as possible and providing ample space for the entranceway.

The final outcome was to move The Wedge down slope significantly. We did not repeat the process with any other design.

I thought we could approach the modeling in a more methodical way than before, with iterations of model manipulations paced by deliberate consideration of the consequences of each, pro and con. But both times we’ve done this exercise it has busted out in a very freewheeling and productive - but disorderly - blend of generating ideas and making selective judgments. I’m not sure what to do. Am I not setting up the exercise clearly enough, not giving good procedural instructions, not policing the process enough? I hesitate to disrupt the flow of work in order to impose procedural rules ... The layout exercises have been among the most exhilarating and ‘out of control’ for all of us ... not really out of control so much as impossible to ‘capture’ and record while actually participating ...

... Sometimes I think of the designbuild experience as something that leads to relationships with the land and with each other. Other times I think of the relationships - the dialogue, and the “being there”- as things that contribute to the designbuild process. On thinking about it more, isn’t it

possible or likely that these are mutually formative modes, in dynamic equilibrium? Like Winston Churchill's buildings, first we shape them, then they shape us.

Matt observes that the crook of the house is the obvious, most readable place to locate the entrance. However, there is concern that the entrance as shown in the Wedge design will feel sunken and cold. Discussion leads to shifting the whole house down-slope so that the area just outside the entrance is less sunken and more spacious and inviting.

20 JUN 01. MEETING and PRESENTATION with the Bewells, the farm, evening.

Review of Project To Date.

Introduction of “Wings” in response to the June 10 workshop, as floor plan and elevations. (See Figure3.10).

Matt had read my position paper and wondered what was the answer to the closing question, “Will the land emerge as one of the valued partners in embodied collaboration?” I couldn't say.

Later in conversation Matt interjected with “What kind of thrush is that singing?” I assumed it was another “awareness test” and it rubbed me wrong, but we struggled to repair the rift, and the important question remained: If we want to address/respond to the land with our design work, what difference do singing thrushes make in the design of a house? Because, presumably, in some small way, they do make a difference.

Sally raised another important question, “As we begin to settle on a particular design, how do we assess what we have lost and what we have gained? What are we giving up, and what opportunities are we availing ourselves of?”

We talked about a variety of Big Questions, then turned briefly to the latest drawings I brought, Wings. Interestingly, the questions and comments in response to the drawings were more specific this time, perhaps because the drawings were more detailed.

In Wings the entrance is still in the crook of the house facing northeast but the door enters a vestibule two feet higher than the floor of the house proper, with steps leading down into the house. The

vestibule is reached by a covered walkway on the northeast side of the west wing.

We discuss moving the fireplace masonry completely inside the house to maximize its use for heating, and forgoing the idea of a dual-purpose fireplace for outdoor cooking.

27 JUN 01. PRESENTATION with the Bewells, the farm, evening.

Introduction of ‘Oculus’ as model and footprint drawing (See Figure 3.11).

As I revisited our previous design (Wings) I became concerned that we had given short shrift to the idea of “positive outdoor space.” The Wings design left outdoor social space on the margins of the site rather than defining or embracing it ... I also recognized that, essentially, we wanted to use the house to help define THREE distinct outdoor areas: 1- the outdoor social space to the south, 2- the garden to the west, and 3- the upper terrace/farmyard to the north. So I had been exploring the idea of a building with THREE “wings” instead of two, one wing being reduced to a rustic room with a gravel floor and an oculus in the center of the roof.

I tended to talk more about overall forms. The Bewells kept reminding me of very particular functional needs and desires, like the greenhouse and laboratory.

In the Oculus the entrance is still in the crook of the house to the northeast.

In the Oculus the fireplace has been moved to the interior, as a focal point for the living room but within sight of the dining area and kitchen. Matt responds that he’d like the fireplace more in the center of the house and suggests the southwest corner where it was before, except with all of the masonry inside the walls of the house. The point is to minimize the loss of heat to the outside.

29 JUN 01. DELIVERY to the Bewells, Matt’s office.

Introduction of ‘The Loop’ as floor plans and elevations (See Figure 3.12).

I pushed hard on the latest idea, The Loop, in order to deliver drawings to the Bewells today before they went on vacation. Cross ventilation, pedestrian paths through the house, and a wrap-around porch were the key features of The Loop.

In the Loop the entrance is in the northeast corner between square modules, facing north. It is approached by a partially sunken arcade well protected from the wind, and leads directly into the kitchen.

The fireplace is located in the center of the square module between the kitchen and the living room.

01 JUL 01. NOTE to myself.

I am learning the value of models, models, models, including the slips and mistakes you can make, themselves valuable sources of ideas. (See Figure 3.8)

03 JUL 01. SOLO DAY at the Bewells' farm, all day.

Today I spent the whole day by myself at the Bewells' farm to walk around, hang out, and think. It was very inspiring and productive.

The interesting thing is that I might have settled for one of the earlier designs if the series of meetings and workshops with the Bewells hadn't raised questions and issues and stimulated additional design iterations ...

... For the next workshop I am convinced that we should do a major clean-up/ declutter of the land immediately

around the house and the upper terrace ... [It never happened; "mess" is personal.]

14 JUL 01. MEETING and PRESENTATION with the Bewells, the farm, midday.

Review of Project To Date.

Introduction of 'The Turtle' as a model, floor plans, and elevations (See Figure 3.13 and 3.14).

The Bewells volunteered their thoughts that the project had reached a juncture; I agreed. We already had lots of good ideas; they asked, "How do we make decisions about which ideas to go with?" Rather than do a clean-up for our next workshop, the Bewells opted to do a charette to design (and later build) a 'bench place' under The Three Sisters walnut trees.

'The Turtle' featured an improved configuration of the entranceway, a clerestory and valance around the living room, and a cistern under the living room.

It occurred to me this last meeting that the process seems to have 'reverted' to a more conventional designer/client relationship, where the designer presents ideas, the clients respond, back and forth, rather than continuing as a more

*collaborative relationship where the clients are actively engaged in the design work. This seems to be due in part to the difficulty finding blocks of time without distractions when the Bewells can really focus on workshop activities. Could it also be true that the Bewells **need** for a designer to work through some of the issues independently and then ‘get back to them on that’?*

In the Turtle the north entrance has been shifted so it does not lead smack into the kitchen. Instead it is aligned with a door on the south side of the house to create a ‘corridor of light,’ i.e. a person entering the house looks straight ahead to a glass door leading out again. This alignment , and the alignment of doors on the east and west sides, permit excellent cross-ventilation.

There is no significant change in the location of the fireplace.

The Bewells make no significant response to either of these locations.

22 JUL 01. ALL-DAY WORKSHOP with the Bewells, the farm, all day.

Designing a Bench Place: Charette.

Today the idea was to use the workshop techniques we had practiced earlier on the house to design a discreet, bite-sized landscape project we could actually build during the next workshop. The project we had chosen was to design and build a ‘bench place’ under the grove of walnut trees southeast of the house, the grove called The Three Sisters.

The project was a little disappointing ... We lacked the time and focused attention we needed to really think through the design and consider a wide range of alternatives ... There was little sense of thorough investigation of design ... It was hard for me to really think through ideas thoroughly ‘on the spot.

One must weigh the value of doing collaborative design work, factoring in its costs in terms of time and the difficulty of being able to free ourselves of other obligations or distractions (simultaneously for all participants) versus the value of hiring a designer to do the ‘thinking through’ on his/her own, with more occasional feedback from clients. Each approach has its

own merits. But **design takes time and focus**- and these are scarce no matter how we try to play the game. **Time and undivided attention are two of the most important ‘means of engagement.’**

But ‘time and undivided attention’ by themselves would not make for good design either. It’s the alternation between collaboration/ engagement/ interaction AND time to reflect/ make sense of it/ ‘render’ it/ formulate a response that yields big dividends. Again, it’s balancing alternating modes, each in its own time and in appropriate measure, that makes the whole, that makes health - not getting stuck only at the computer or only with the hammer.

28 JUL 01. NOTE to myself.

I’m not sure what I’m going to write but I think I need to try to write something, to try to understand/ make sense of/ define what has been happening **outside** of the workshops and meetings but relevant to the design. What happens in the days and weeks **between** workshops, the ‘solitary’ work, the sense-making that I try to achieve myself, during all the time we’re not actually ‘collaborating’ directly. I realize now I have not thought much about this part of the design process, although it takes by far the lion’s share of time ...

... I am amazed by how much of it is a process of trial and error. I don’t come up with a bold and catchy concept and then try to find ways to express it. Perhaps that is my fault. It seems like I try various ideas concerning function, experience, and form, and see which ideas cohere or gel into some kind of recognizable ‘concept’ ...

...I don’t want to paste on a ‘concept,’ I want to interact with the place ... I don’t want to control it so that all experiences are the same ‘good’ ones - eating caviar daily must get boring - I want to encourage interaction in manageable ways, like vegetable gardens that invite real work but don’t overwhelm with work, like houses that invite you,

*'ask' you to throw open a window or close a curtain, rather than suffocate you in a tomb of fluorescent, air-conditioned monotony. I want to encourage interaction - which **requires** occasional feelings of moderate 'disequilibrium' or discomfort, as impulses to **act**, like Dewey says.*

*It's the experience of transience, really, like the cherry blossoms in Japan. How do you design in the face of and **for** uncertainty and transience?*

*... As fun as brainstorming is, we do have to make judgments **against** most of our free and wild ideas eventually, and hang our hat on one or a few of them ... We must make sense, make choices, and believe in order to act, in order to build, like needing a fulcrum for leverage to make changes in the world, like needing the resistance of a rock in order to shove off in the canoe and glide. But we don't believe and then act. We demonstrate beliefs by our actions. A thing becomes a fulcrum by being used as one. And are making judgments and selections even the same thing as 'believing'? Our body engaged in work may judge and choose without 'beliefs,' may it not (i.e. praktognosia or working knowledge)?*

... Beliefs are provisional not for lack of truth in the world but because beliefs are human ...

... There are many possible good solutions to design problems, including the design problem of making sense of the world.

16 AUG 01. MEETING and PRESENTATION with the Bewells, the farm, evening.

Discussion of how to conclude.

Introduction of 'The Golden Slipper' as model and floor plans (See Figure 3.15).

When I arrived, Robin asked, "Can we see the model?"

*"Wow," I thought to myself, "she really **is** aware of this business!" To Robin, I said, "How about after supper. Then I'll need you to help me set it up, OK?"*

Sure enough, after a pleasant supper and conversation Robin asked again, "Can we do the model now?"

"Yes! Yes!" I said, "Let's check with your mom and dad to see if this is a good time."

I unpacked the model, which this time was assembled in one piece, more or less. When I pulled out an extra piece of balsa wood, Robin asked if she could see it, and then she used

that and other pieces to create “a gate,” she called it. She placed other pieces to create “a house,” trying different places and asking, “How about here? Or how about here?” Eventually we got things ready for presentation, and Mike and Sharon joined us.

It’s great that models are making an impression on Robin - and perhaps it’s indicative of how models are really more immediately ‘engaging’ and ‘convincing’ to anyone than just drawings are.

At one point in the presentation, while I was rambling on about other features of the design, Sally said she was having a hard time understanding the stairway. I felt, “How welcome such questions are!” They help the dialogue along, they help flesh out explanations with detail that might seem excessive in monologue but informative in dialogue.

‘The Golden Slipper’ featured a footprint based on the golden rectangle, substantial earth berming on the north wall, and an elliptical porch for better balance of solar gain and shade.

At the conclusion of the meeting, the Bewells said they needed about two weeks to think about the various designs and respond.

In the Golden Slipper the entrance has been shifted to the west side of the house despite the wind, in order to berm earth against the north wall of the house for thermal buffering. The entrance is aligned with the connector and glass doors to the east, and double glass doors are used on all four sides of the house, to maximize cross ventilation and corridors of light.

The fireplace has been brought into closer association with the living and dining areas rather than the kitchen because the kitchen will be generating some of its own heat and will benefit more from the warmth of the greenhouse. It is also close to the entrance for easy hauling of wood.

The Bewells make no significant comments about these locations.

12 SEP 01. DELIVERY to the Bewells, Matt’s office.

Introduction of ‘Cross Breeze’ as floor plans and a model packaged in a box (See Figure 3.16).

Today I delivered a new design. ‘Cross Breeze’ is a revision of ‘The Golden Slipper,’ in which all circular and elliptical forms in earlier designs have been changed to rectilinear forms, for simplicity.

In Cross Breeze the entrance is still on the west side but has been split into two single doors, one between the house and the garage, the other between the house and the west porch.

The fireplace remains closely associated with the living room.

16 SEP 01. PHONE MESSAGE from the Bewells.

This afternoon I received a message on the answering machine from Matt and Sally. They had chosen the Wedge or Wings design, the “B-2 Bomber” design. They want the chimney inside the house and they need the design to be modular so they can build it in phases beginning next spring or summer.

I was surprised, a bit disappointed, even irritated, then angry, then depressed. For months I had invested so much more time and thought in later designs, which I think are better than the Wedge - although if I revisit it and work on the Wedge some more I may be able to improve it.

I feel like the Bewells’ decision is a real set-back ... In some ways I feel like I failed to bring the Bewells along with the evolution of thinking about the design. I hadn’t convinced them of reasons why we departed from the idea of the Wedge. I need to go back and review notes about how we arrived at the

Wedge and why we departed from it. I thought WE had departed from it but evidently not. It was just me.

*... So two big issues are **time** and **interaction**. They’re related. How do you find out what the clients’ needs and desires are unless you interact, and how can you interact without needing time? How do you do design, much less build relationships and develop practices, without taking time to interact? The hyper busy-ness and speed of our culture is destructive to ecological practices.*

Anyway, try again. I need to: 1- talk with the Bewells to try to understand better what they like about the Wedge and what they are really after; 2- explore the Wedge some more, try to make it better; and 3- anticipate and explain the consequences of design decisions as clearly and strongly as possible.

The Bewells chose Wings but want the fireplace moved completely inside the house.

19 SEP 01. MEETING with Matt, Espresso Corner café, morning.

I met with Matt this morning to ask several basic questions ... I also talked with Sally on the phone for an hour or so on Monday morning, to ask the same basic questions. Both discussions were good. I tried to be careful not to comment or editorialize or even respond to what they had to say until the end, when I made some brief comments. I was happy that Matt and Sally corroborated each other's statements.

Matt mentions an interest in building a 'masonry heater' for the fireplace.

23 SEP 01. MEETING and PRESENTATION with the Bewells, the farm, mid-day.

Today I presented three alternatives using floor plans and models: an improved version of The Wedge, now called 'Wings II;' an improved version of Cross Breeze, now called 'Niches;' and an intermediate alternative called 'Nooks.' (See Figures 3.17, 3.18, and 3.19) *When I mentioned that there were three alternatives, Matt queried,*

*"Three?" I think he might have been concerned that I had brought another completely new idea to add to and complicate the picture even more. Understandably. I gave each person photocopies of the floor plans that they could study closely in hand as I talked, and I used the models to explain three-dimensional issues. I believe I presented each alternative fairly and fully. **After presenting, Matt and Sally conferred while I showed Robin a black snake I had found on the road and brought for her in a paper bag. Soon Matt and Sally announced their choice, "Niches," the one I favored.***

*I will never know whether I **really** presented the information fairly, in a balanced manner, and let the weight of information tip the balance of opinion for the Bewells, or whether they just felt/ understood the need to bring the months of work to a close and so humored me, or whether it was just bald-faced persuasion ... Did I speak in a way which 'brought the Bewells along with me,' or did I speak in a long-winded way that exhausted the Bewells, overwhelmed them, and discouraged them from finding their own voices - for lack of quiet, for lack of silence, for lack of 'space' or 'time' in the dialogue. This is an important question I must continuously ask myself and I must monitor myself, evaluate, and adjust.*

The three options presented try to accommodate the Bewells desires concerning the entranceway and the fireplace, in three different configurations.

30 SEP 01. NOTE to myself.

*Is the final design really a **good** design because it emerged from dialogue (two heads are better than one), because the Bewells checked my whimsy and because I perhaps brought a better understanding of “consequences” to the Bewells? Or is it really just a conventional design because it is what we could all agree upon, without the **vision** of one imaginative creative mind? Whose mind?*

Two things I realize from this project:

*1- Dialogue is essential to design. You know, now I'm not sure that's true. As the architect on the radio said, the meaning of a building changes over time, as circumstances change. When the World Trade Center was built, people criticized it soundly, then utilized it, got used to it, adapted to it, befriended it, became proud of it, now we lionize it as a martyr. People adapt, people **make** meaning out of the world. So I understand the desire to 'reach for the stars' in solitary egotistical genius,*

*and then watch to see what people make of your creation. Design is like a gamble, or an intelligent guess at best. But even solitary genius is sparked by interaction with the world, flashes of insight about the world, making sense of a fluid world. As my advisor and I agree, **it's BOTH what you've got AND what you make of it.** And as with 'distance learning,' people who may have little choice are amazingly good at adapting to things and making the most of situations that really may not be very good. So dialogue, i.e. interaction of some kind, of various kinds, is just the way we live in the world. Big surprise.*

2- Design is incomplete without build. It's also incomplete without use ... without adjustment ... without adaptation. Design is always incomplete. It's an ongoing process.

25 SEP - 12 DEC 01. WORK, myself, home studio.

I continued to revise the design and build models, met infrequently with professors, and drew semi-finished drawings for closing interviews with clients.

05 OCT 01. MEETING with new advisor, campus.

Using photos, drawings, and models, I informally presented a history of the project to my new advisor (architect). She suggested staying with simple rectilinear forms for the house and employing curvilinear forms, if desired, in the landscape.

18 OCT 01. BREAKFAST with classmate, Gillies restaurant, morning.

In talking with a classmate this morning, the design process struck me as being just like a “conversation” because it involved **taking turns** and **taking time** to formulate responses, at a pace appropriate to the conversants, the subject of design, and the means of communication.

20 NOV 01. MEETING with my advisor, campus, morning.

In talking with my advisor - not only today but in general - about various issues of design such as steepness and vegetation of slopes, solar gain, wood heat, accommodations for firewood, trees near the house, timber framing, and others - he has referred primarily to his own experiences working with his own house. They are what he knows best, they are what

have made the most vivid and useful impressions. He does not refer to textbook concepts or even drawings, he refers to his own house. It is a classic example of Dewey’s **learning by doing**. He has also told several stories about his house - about a steep, stone-covered bank, the heat in the sun-lit living room, the depths of eaves - that show how **adaptive** design emerges as one interacts intimately with one’s environment, not just intellectually but also seeing for one’s self, in embodied form. It is design by ‘being-in-the-world,’ part *a priori* ‘plan’ derived from knowledge, prior experience, prediction, and so forth but also part inventive response to the world, derived from direct experiential interactions with the contingencies of time and place.

30 NOV 01. Finally I reached a sense of completion about the design of the house and landscape. The house design is called Breezeway. (See Figure 3.20) The landscape design is called Crossroads.

In Breezeway, the west-side entrance is no longer aligned with the east-side utility door, but it has been aligned with an operable

interior window and a large, operable exterior window for cross ventilation and corridor of light.

The fireplace has been brought back into the center of the core house in close proximity with the kitchen. The living room now relies more on solar gain and an auxiliary woodstove for heat.

**12 DEC 01. CLOSING INTERVIEW and
PRESENTATION with Matt, his office, late afternoon.**

(See Figures 3.21 through 3.27)

**14 DEC 01. CLOSING INTERVIEW and
PRESENTATION with Sally, my apartment, late morning
through afternoon (we took a break midway so that Sally
could attend to work).**

II. Graphic Timeline.

Following is a two-part timeline of graphic illustrations. The first part is a series of photographs depicting the land, the participants, the site, and several workshop activities. The second part is a series of working drawings showing the evolution of the design of the house. Where appropriate, the illustrations are dated for easy cross-reference with the Annotated Timeline.

Note that essentially all workshop activities took place on or before June 10, and that essentially all scaled drawings were done on or later than June 6. Therefore there is very little chronological overlap between the series of photographs and the series of drawings. The juncture in media is a reflection of a juncture in the project, as discussed in the 'Epilogue to June 10' (v.i.).

Regarding the drawings, only first floor plans are shown for easy comparison, to highlight the way in which the design evolved. In practice they were variously accompanied by second-floor and roof plans, elevations (one example is

included here), building sections, site plans, site sections, and/or matboard models.

A NOTE ABOUT ORIENTATION. The working drawings are all oriented with south at the top of the page. This is because when working on site the participants adopted the practice of orienting drawings and models according to actual directions, and we often worked facing south. This is also the way one currently approaches the site by auto or foot, from north to south. Therefore we were always looking at drawings 'upside down.' HOWEVER, final drawings are all oriented with north at the top of the page, according to conventional practice.

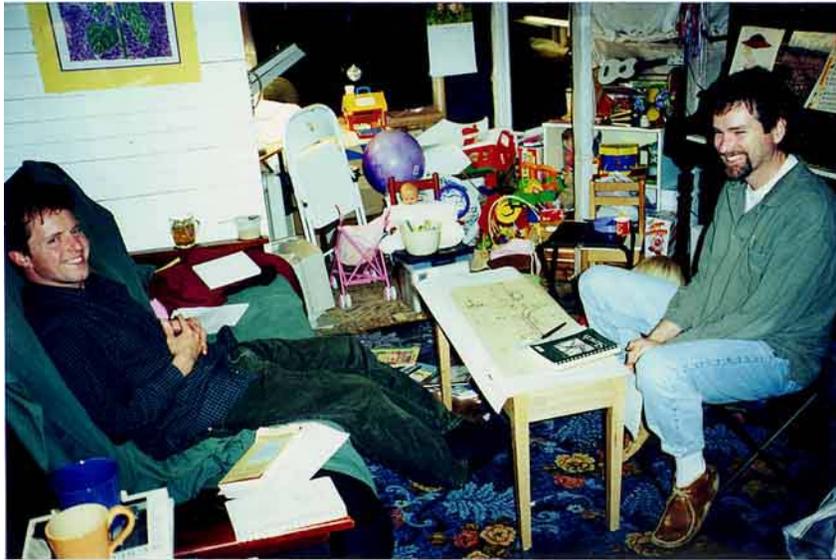


Figure 3.1. The people.
(Clockwise from upper left)
Matt, at a 'sketchbook open house.'
Pete, learning to be a landscape architect.
Pete, again.
Sally, on a trial layout.
Robin, gracing Dad's photo elicitation picture.

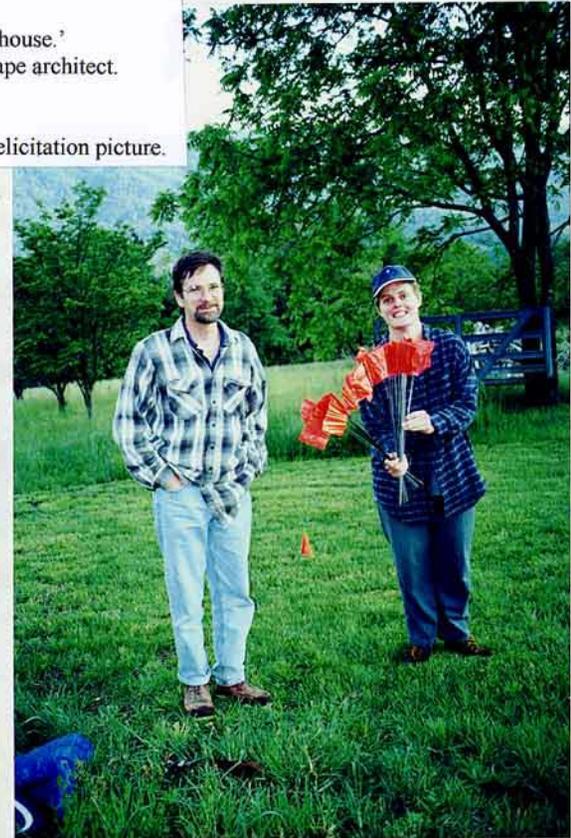




Figure 3.2. The land.
Top. Looking east from the cemetery.
Bottom. Looking southwest from the Upper Terrace.
“While waiting outside I found that the open area above the house, where the cars are usually parked, is an unusually nice spot, facing west.” Pete, March 11.



Figure 3.3. Photo elicitation workshop. March 11.
(Clockwise from left)
Sally looks from the house out to the fields and to
precious wild and heirloom grapes.
Matt looks from the hollow back to the house.
Robin goes to her favorite sitting rock in the garden.



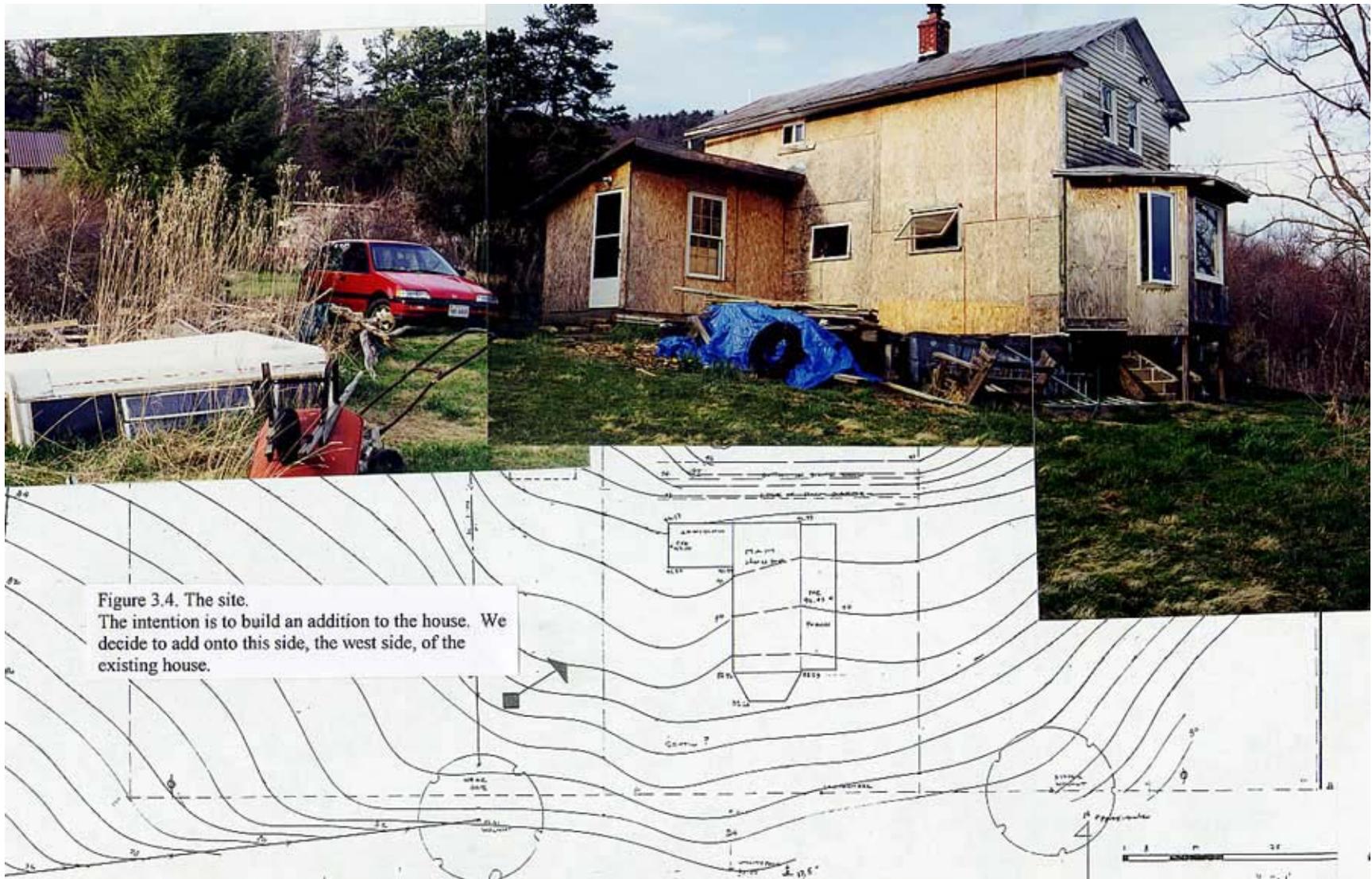




Figure 3.5. Building study models on April 14.
Rough but revealing.
(Clockwise from upper left)
Sally, Matt, Pete.
"My initial impression is that this is too small" Sally,
referring to Pete's model.

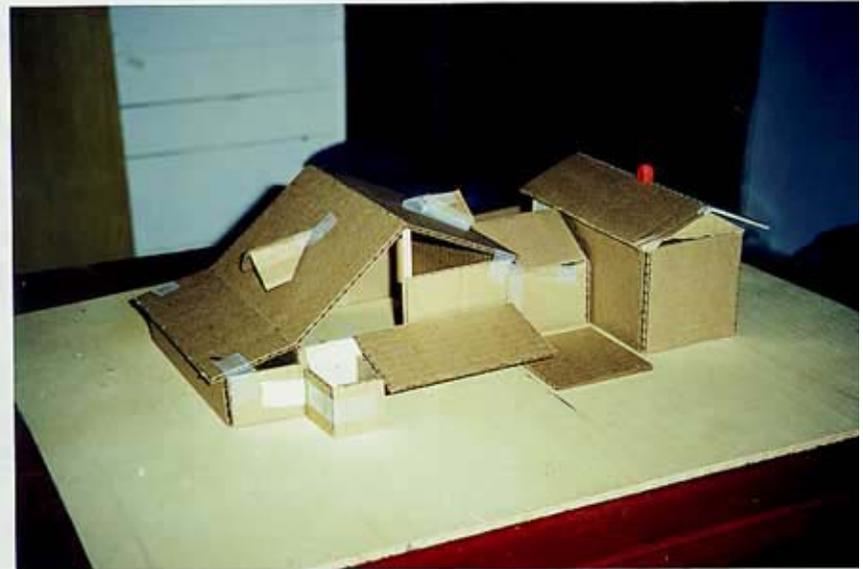
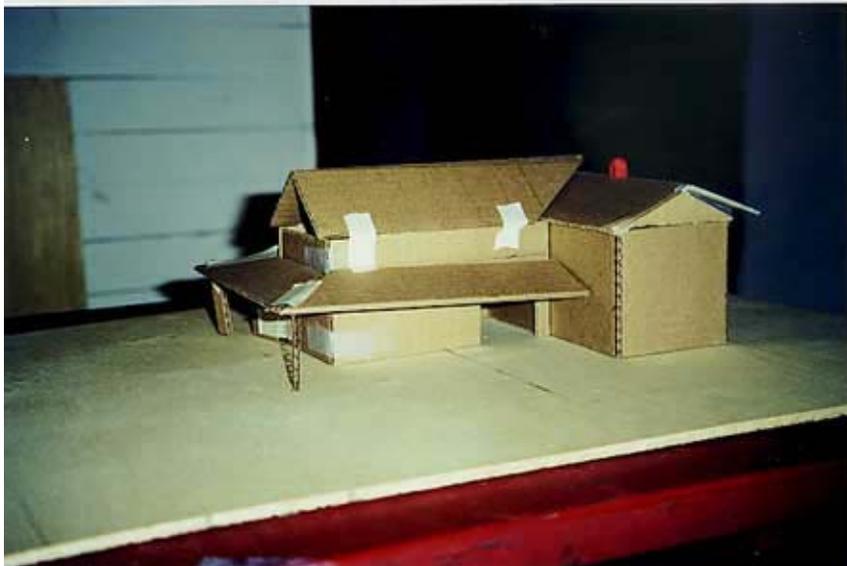




Figure 3.6. Sand cast modeling on June 6.
(Clockwise from upper left)
A plaster mold pressed into sand/peat mixture.
Robin helps moisten the sand and embellish the models with pieces of fern.
A model heeled into the slope.
Sally 'excavates' in order to situate her 'house.'



Figure 3.7. 'Power Spots' on June 10.
Quietly letting the land 'speak' to us.
Top. Pete's spot under 'The Three Sisters' walnuts.
Bottom. Matt's spot under the gateway walnuts,
as viewed from Sally's spot on the old floor deck.
"The objective was to shift attention away from the
house ... and instead consider the larger landscape ..."





Figure 3.8. 'I am learning the value of models, models, models ...' Pete, July 1.

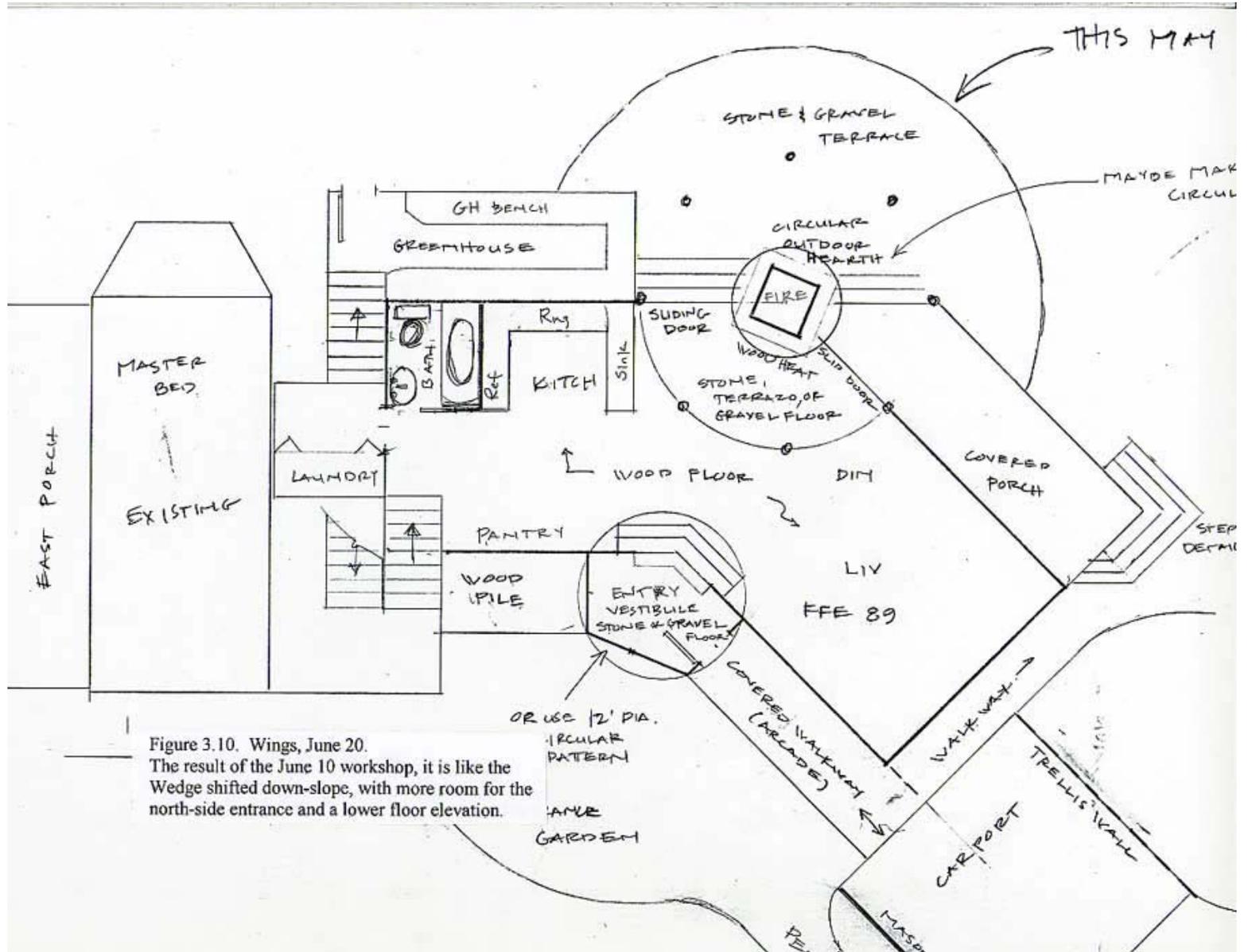


Figure 3.10. Wings, June 20.
 The result of the June 10 workshop, it is like the Wedge shifted down-slope, with more room for the north-side entrance and a lower floor elevation.

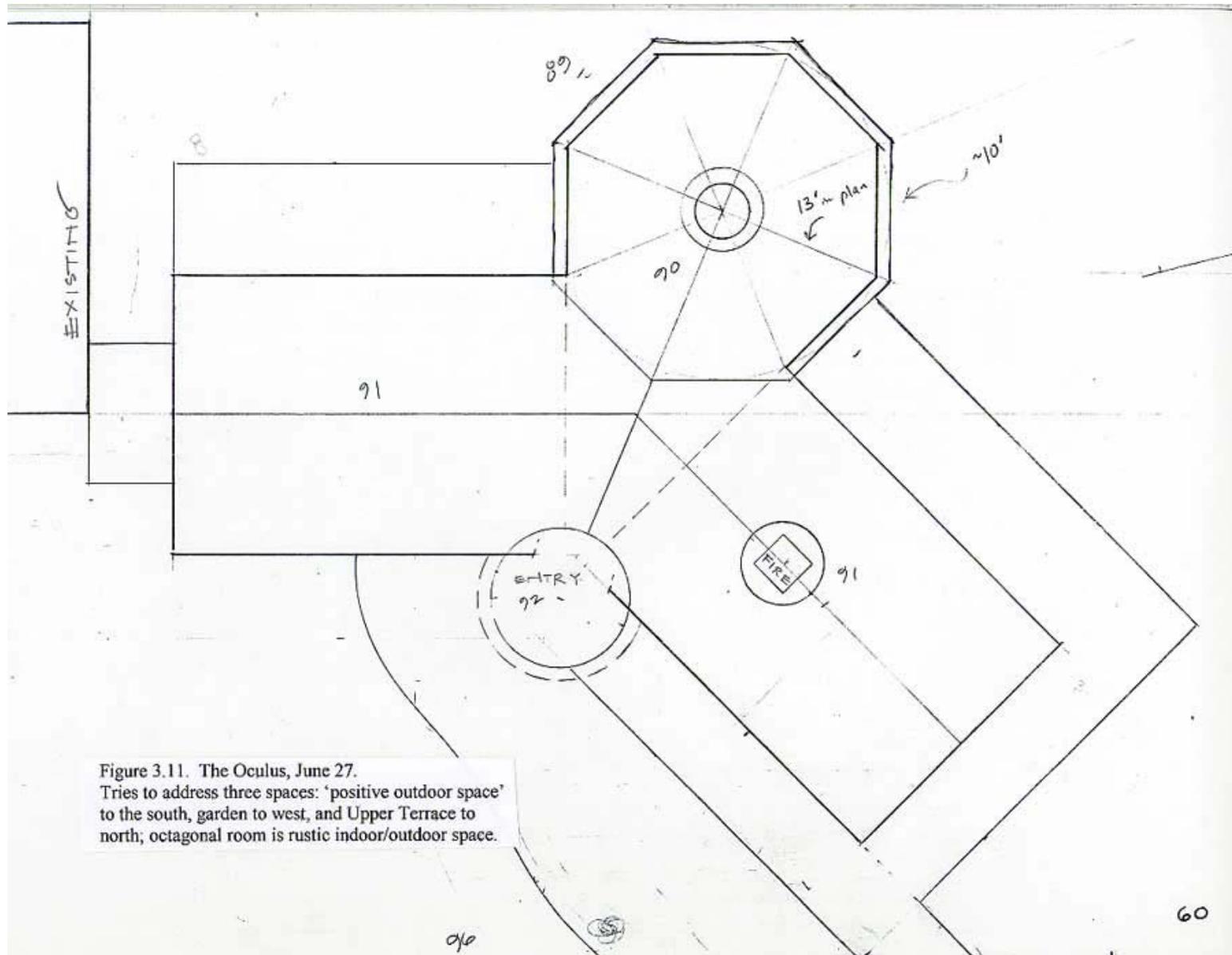


Figure 3.11. The Oculus, June 27.
 Tries to address three spaces: 'positive outdoor space' to the south, garden to west, and Upper Terrace to north, octagonal room is rustic indoor/outdoor space.

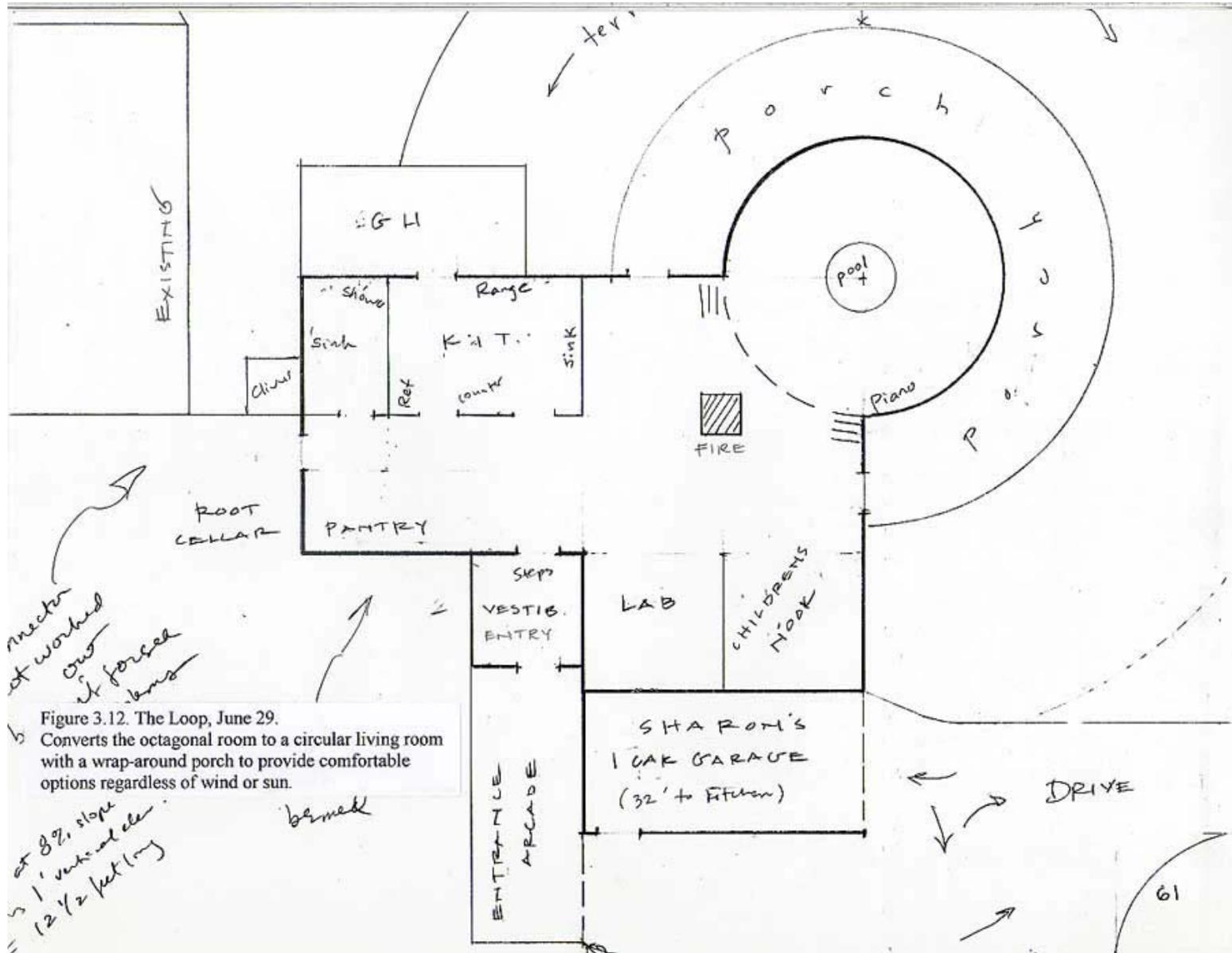


Figure 3.12. The Loop, June 29.
 Converts the octagonal room to a circular living room with a wrap-around porch to provide comfortable options regardless of wind or sun.

at 8% slope
 = 1' vertical rise
 = 12 1/2 feet (100%)

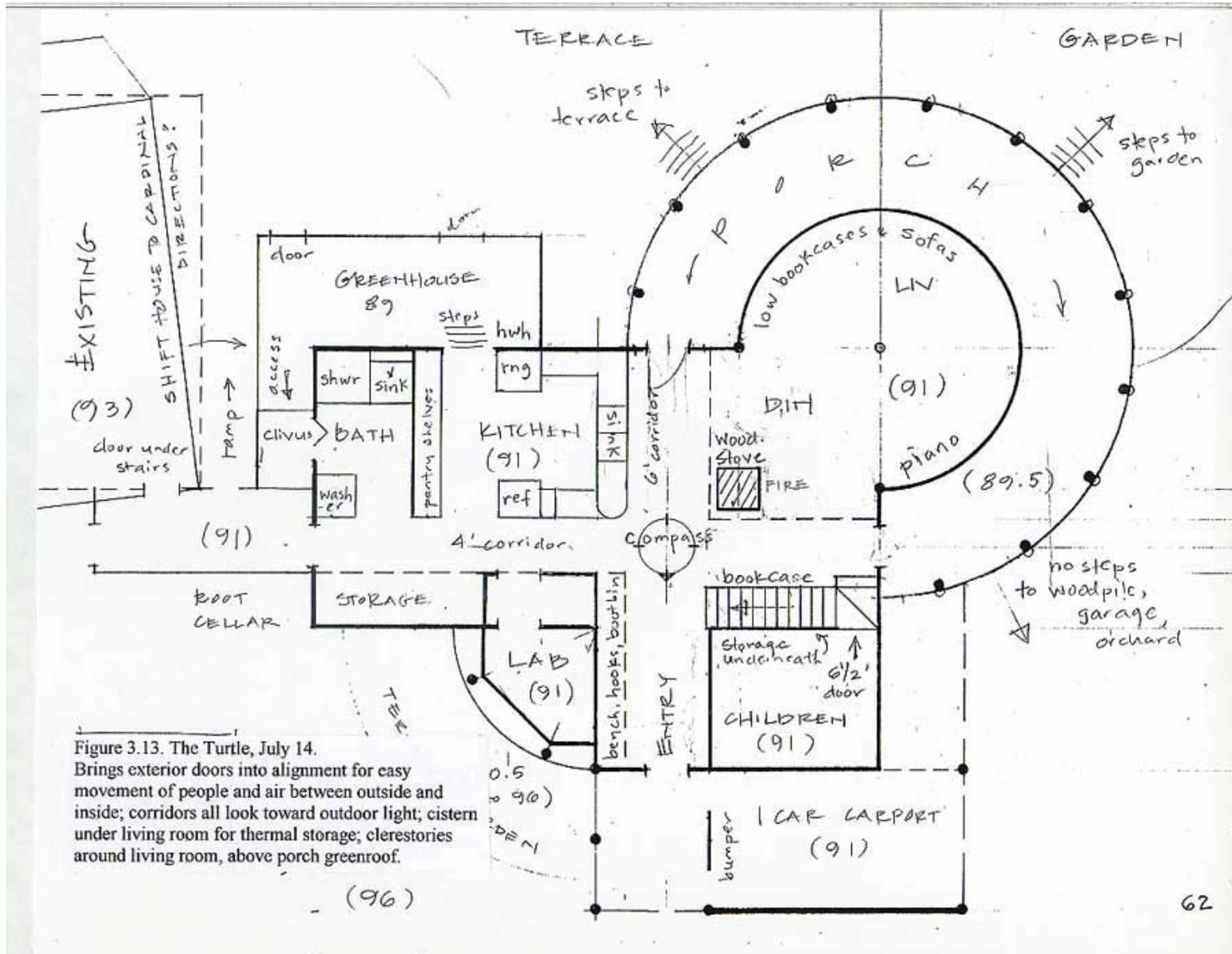
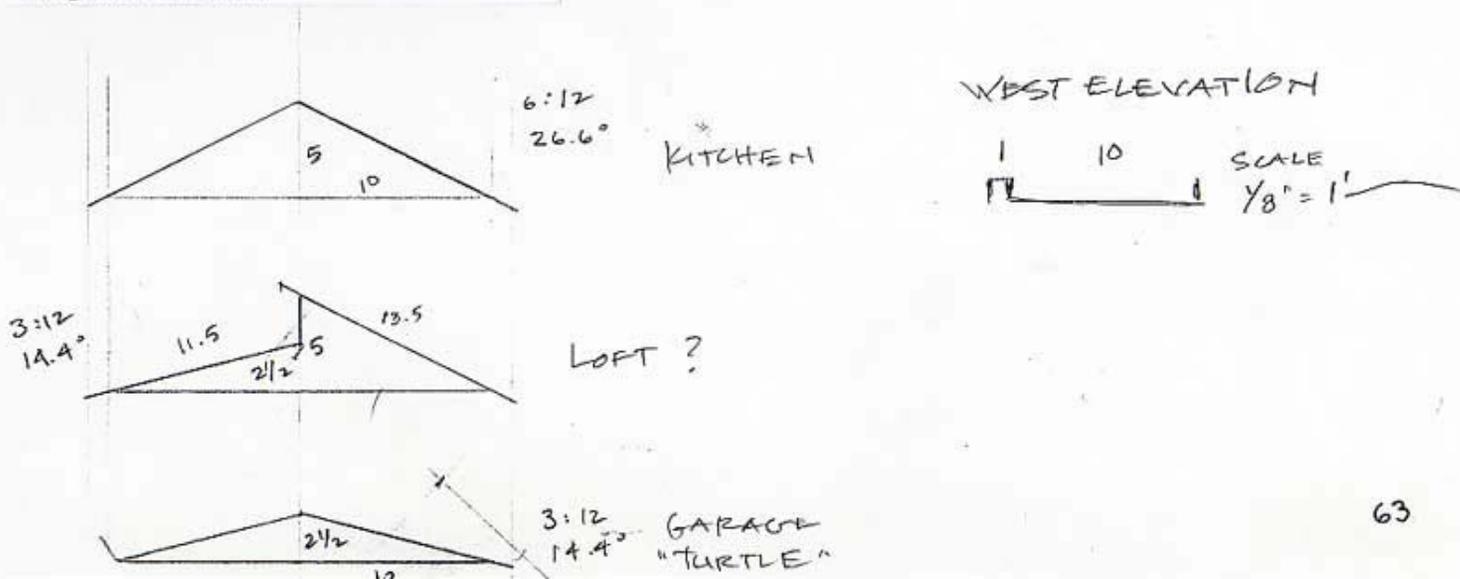


Figure 3.13. The Turtle, July 14.
 Brings exterior doors into alignment for easy movement of people and air between outside and inside; corridors all look toward outdoor light; cistern under living room for thermal storage; clerestories around living room, above porch greenroof.



Figure 3.14. The Turtle, west elevation.
In summer, porch greenroof buffers light entering living room clerestories.



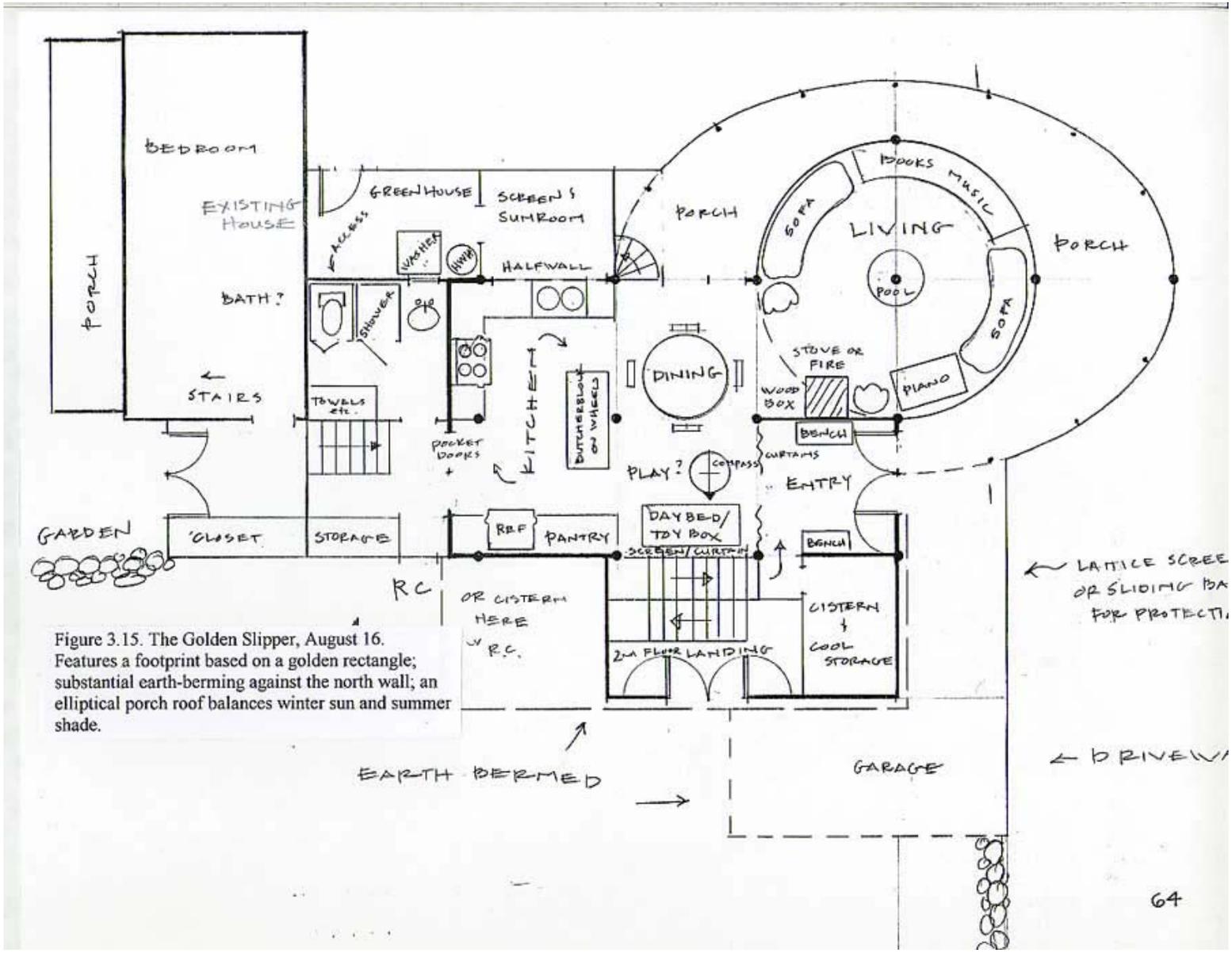
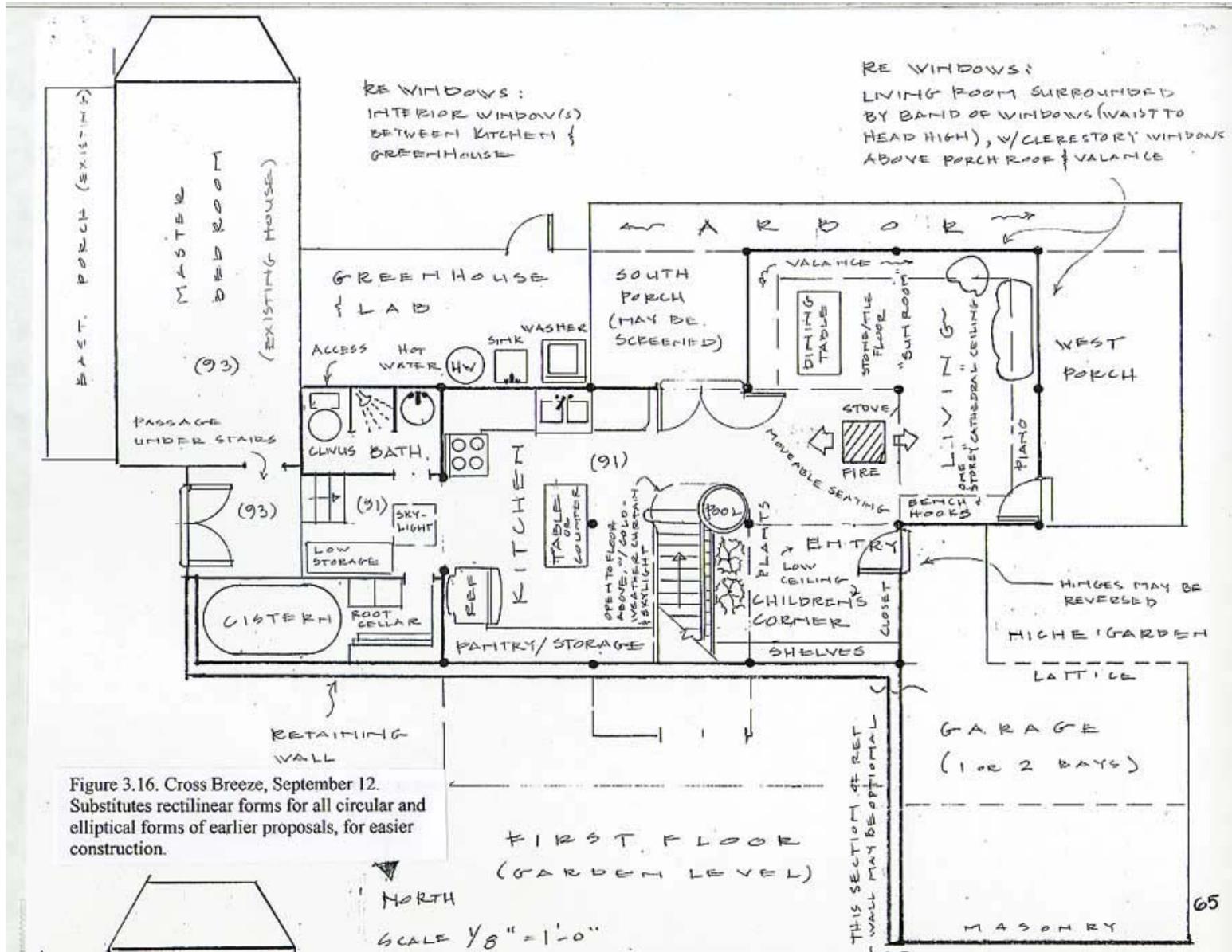


Figure 3.15. The Golden Slipper, August 16. Features a footprint based on a golden rectangle; substantial earth-berming against the north wall; an elliptical porch roof balances winter sun and summer shade.



WINGS II.

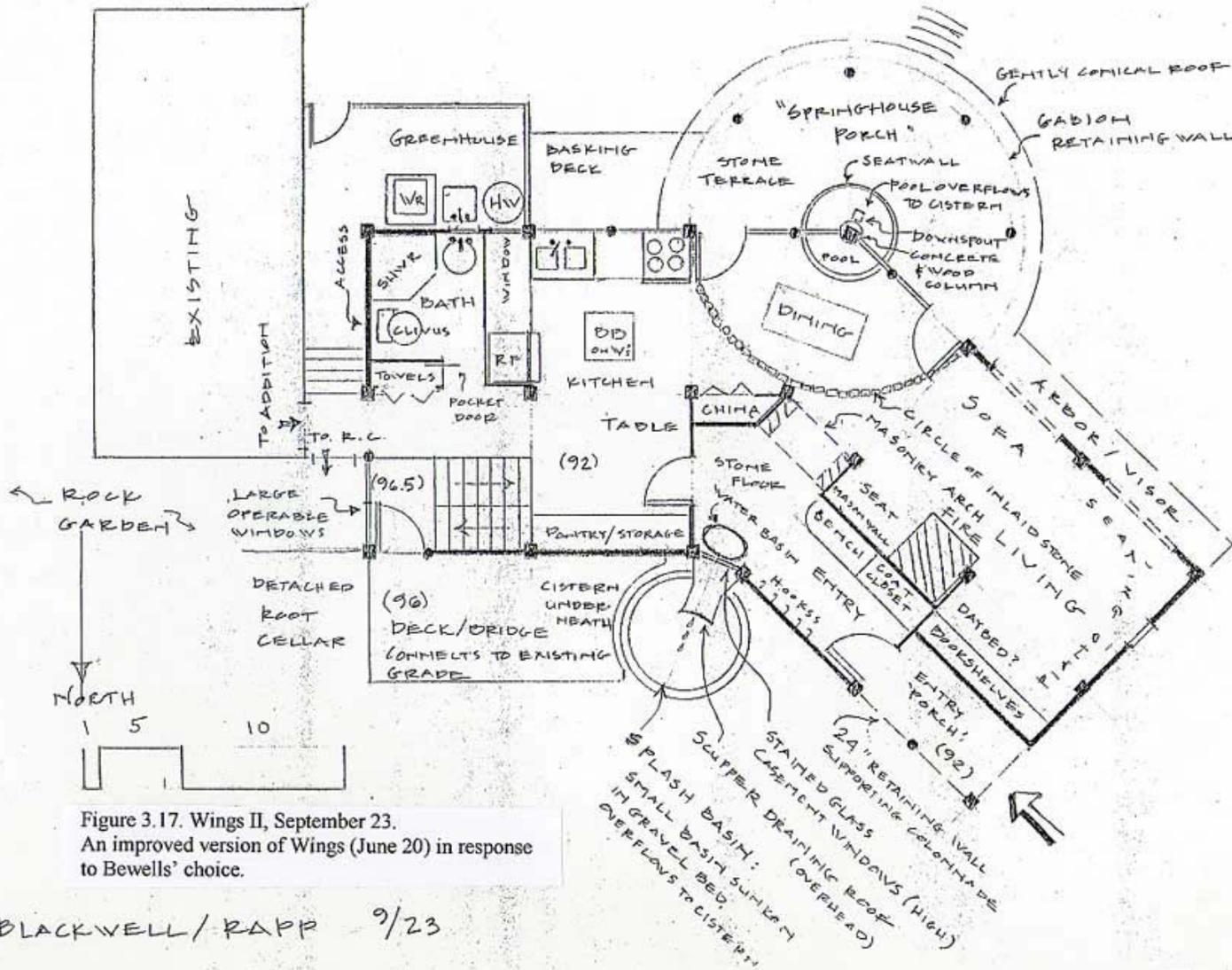


Figure 3.17. Wings II, September 23.
An improved version of Wings (June 20) in response to Bewells' choice.

BLACKWELL/RAPP 9/23

NOOKS

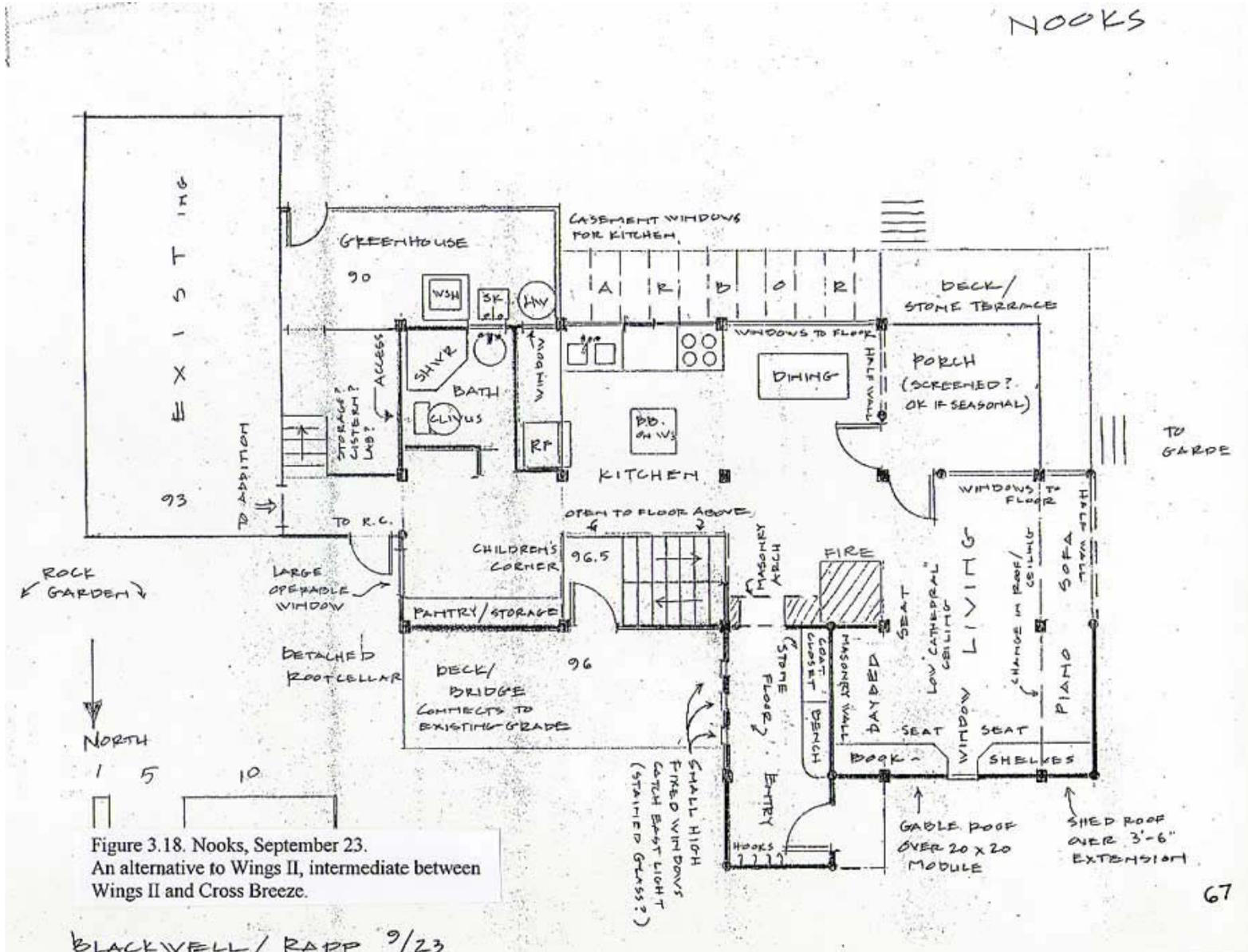


Figure 3.18. Nooks, September 23.
 An alternative to Wings II, intermediate between
 Wings II and Cross Breeze.

BLACKWELL / RAPP 9/23

- SINGLE DOOR
- BATH INCORPORATED INTO CORE
- FIRE MASONRY & LIVING ROOM DOOR RELOCATED
- * CONNECTOR TO EXISTING RELOCATED
- ENTIRE ADDITION SHIFTED SOUTH 8 FEET

NICHES

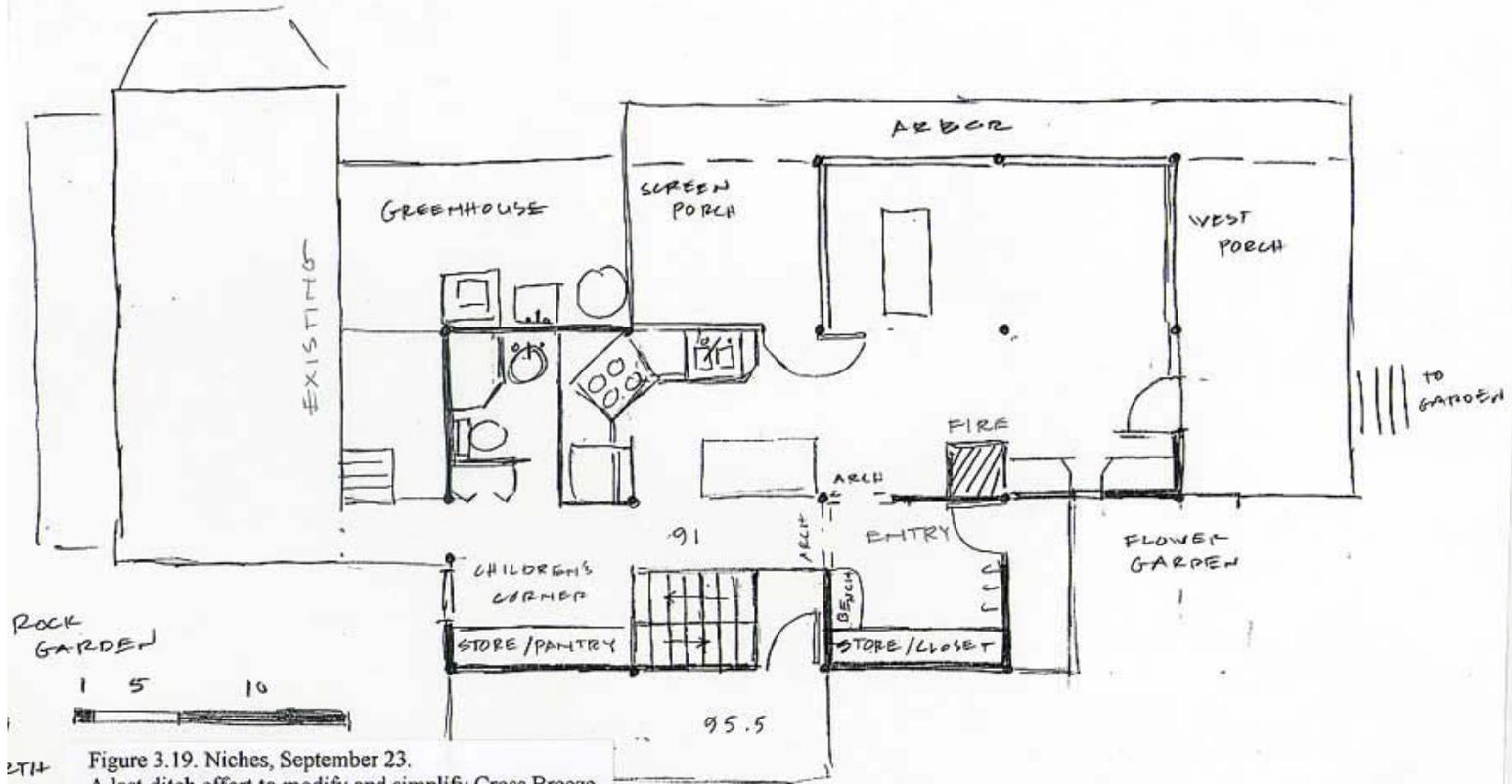
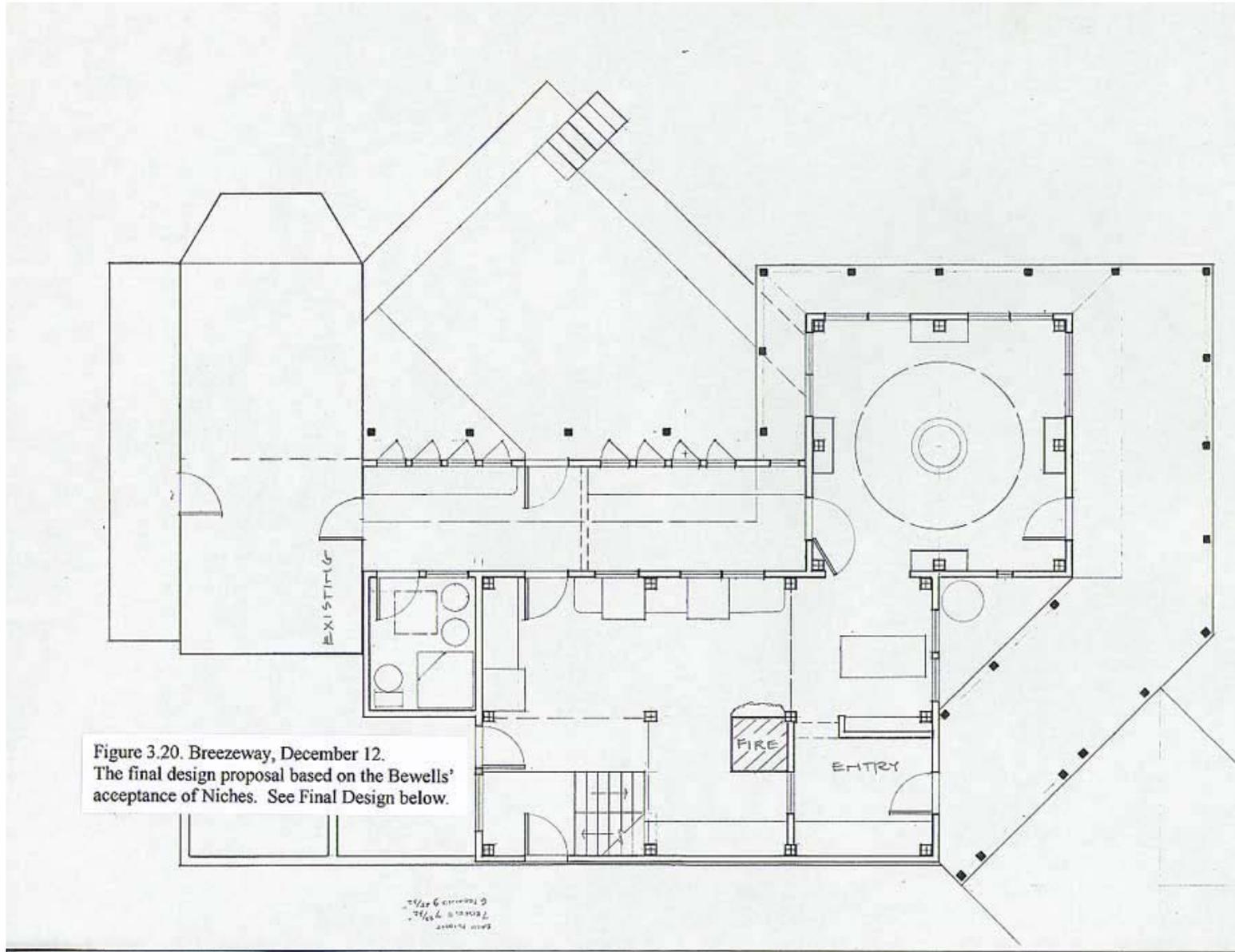


Figure 3.19. Niches, September 23.
A last-ditch effort to modify and simplify Cross Breeze
to meet the Bewells' objectives.

9/23



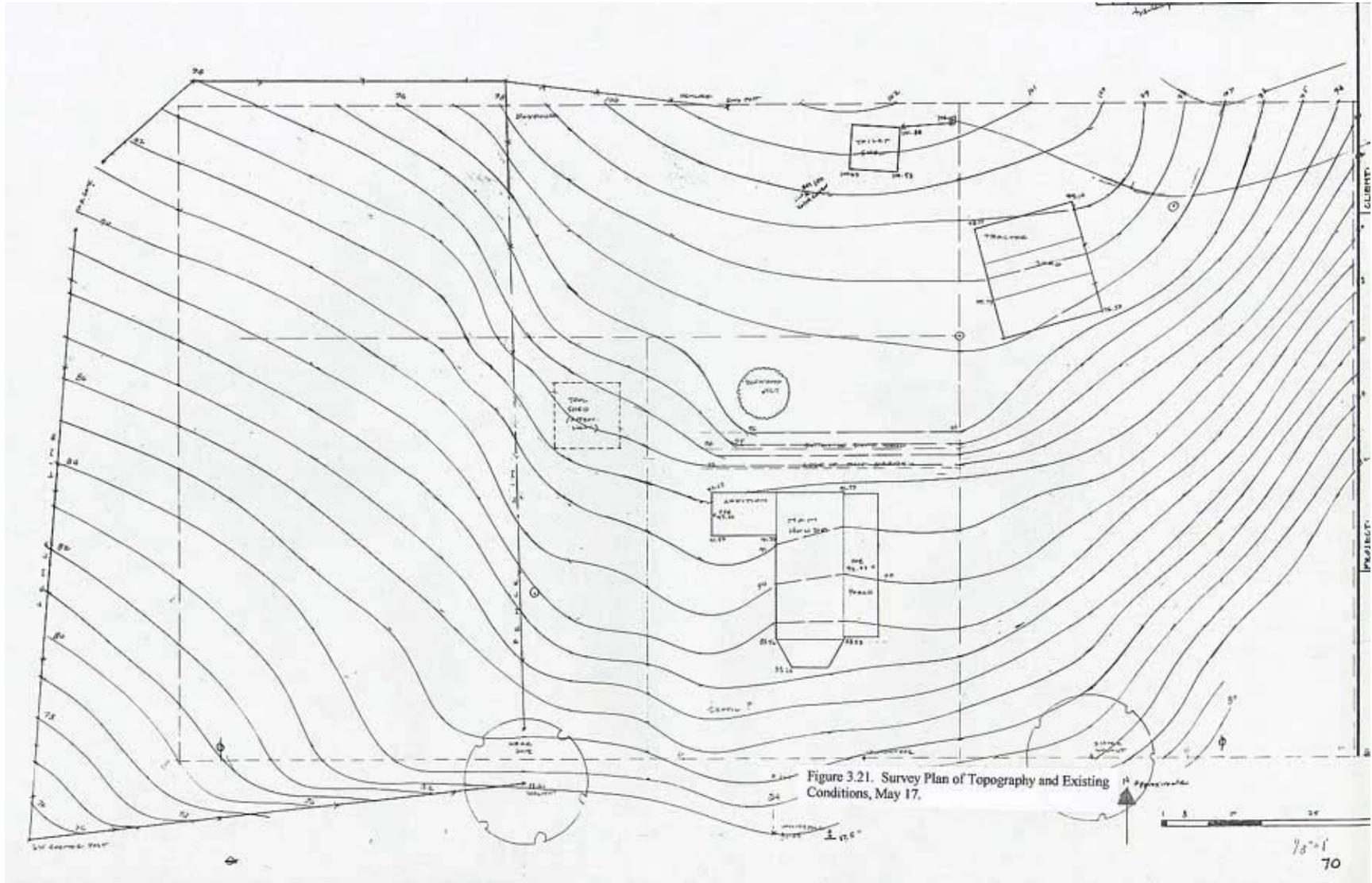


Figure 3.21. Survey Plan of Topography and Existing Conditions, May 17.

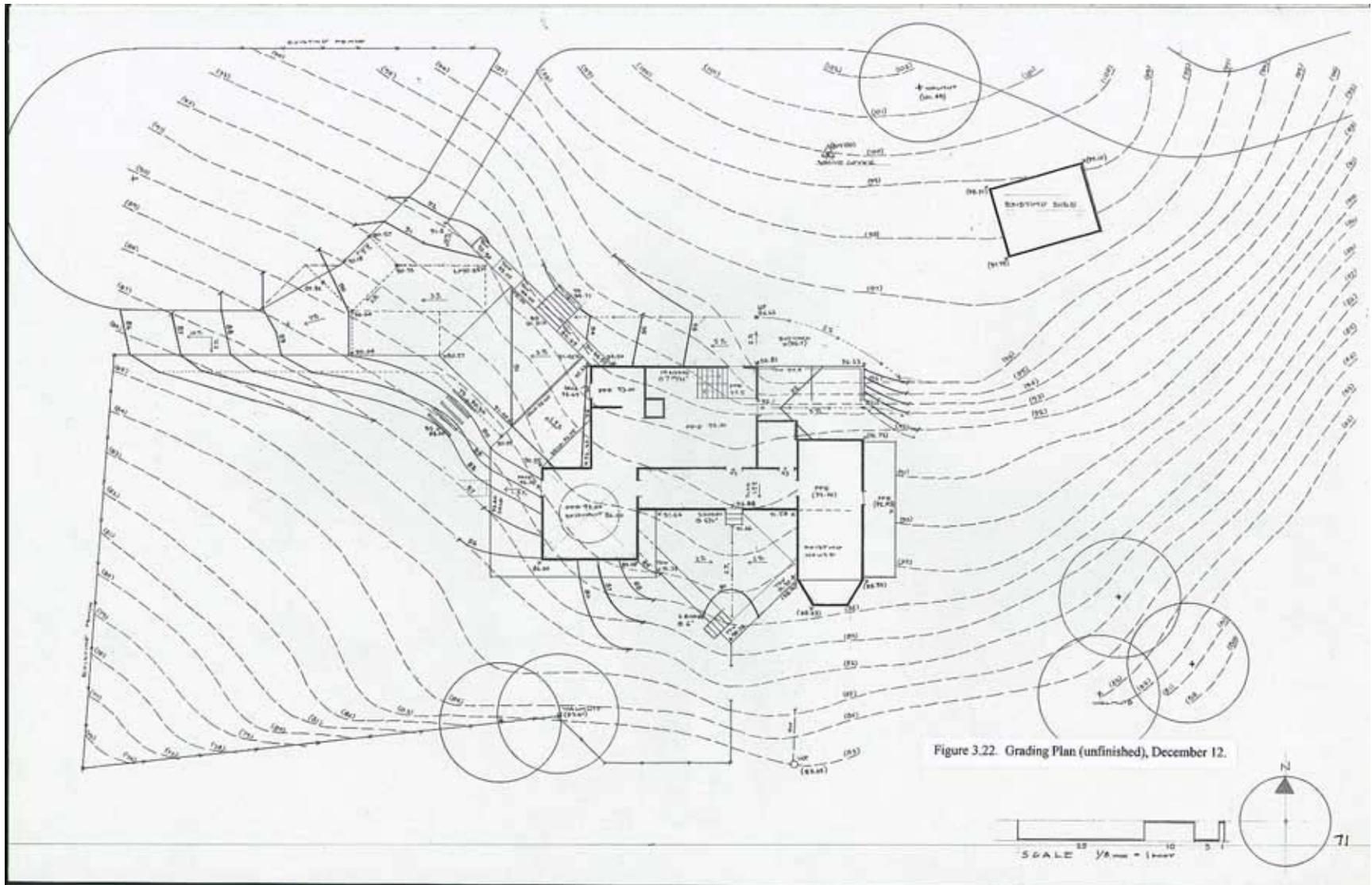




Figure 3.26. Building Sections,
December 12.

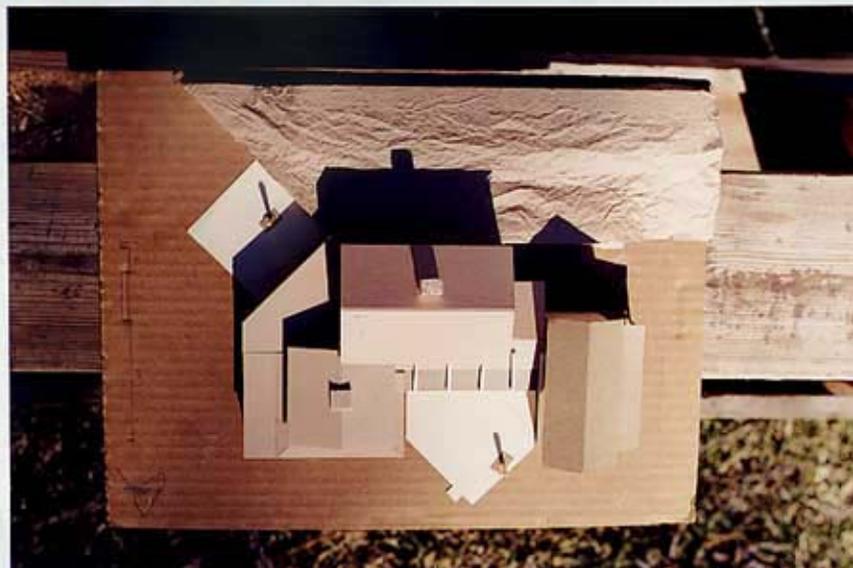
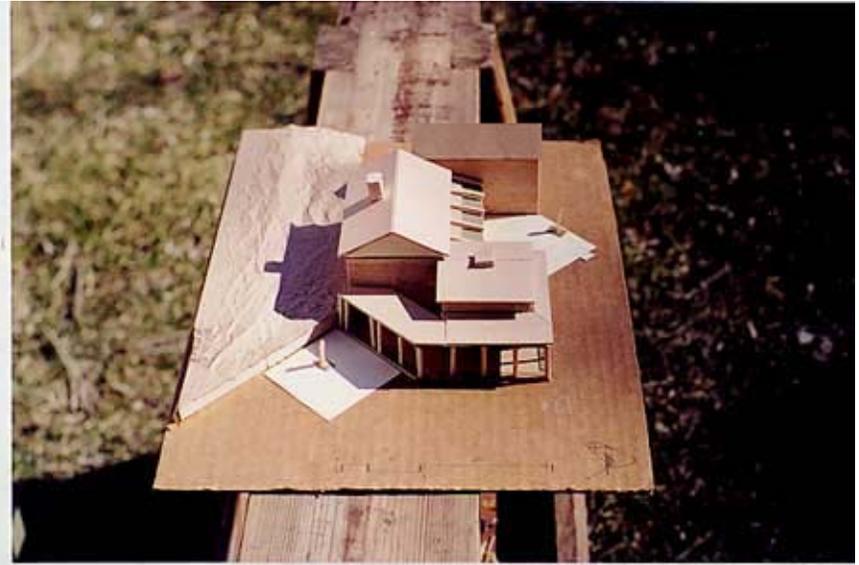


Figure 3.27. Study Model.
(Clockwise from upper left)
Northeast side.
West side.
Roof plan

III. Final Design.

Following is a summary of the final design and copies of drawings used for the closing interviews and presentations to clients in mid-December. These copies are reductions of 24 X 36-inch pencil drawings. Note that these drawings are oriented according to conventional practice, with north at the top of the page (where appropriate).

Program. The design program called for an addition to a traditional 650-square-foot farmhouse that integrated the house with the landscape. Clients' estimates for the size of the addition ranged from 650 sq.ft. to 1500 sq.ft. The addition was to include a 'big room' for living and multipurpose use, and later also the kitchen, a second bath, and other core functions. The kitchen was to be the focus of the house, serving as the 'hearth.' Space was needed for social gatherings indoors and out. Storage space, easy vehicular access, and planning for old age were also called for. The connection between indoors and outdoors, i.e. between the house and landscape, was critical both to facilitate the functional flow of firewood, vegetables,

and laundry through the house, and to welcome nature into the human domain.

Landscape. The landscape plan is entitled 'Crossroads' to highlight the key function of the square Mezzanine Terrace northwest of the house.

The landscape plan partitions the sloping site vertically into three distinct levels. The highest is the Upper Terrace north of the house. It serves as an open, grassy farmyard around which the house, outbuildings, and plantings provide a sense of enclosure while retaining the vista to the southwest. The lowest level is the Garden west and south of the house, including a Play Lawn at the site of the 'first camp' and an Herb Garden. Mid-level is the Mezzanine Terrace, which not only connects the Upper Terrace with the Garden but also connects the Parking Area with the Entrance to the house. On the same level as the Mezzanine Terrace are the first floor of the house and the South Terrace. While the Upper Terrace and the Garden serve utilitarian functions they are also designed to be aesthetically interesting, drawing the eye to vistas south and west. The semi-protected South Terrace and the open Mezzanine Terrace provide alternatives for outdoor living.

Gabions using on-site field stone retain the Upper Terrace and the South Terrace. Apart from modest excavation for the house and auto area, grading was kept to a minimum.

House. The house plan is entitled 'Breezeway' to highlight the key function of the Breezeway/ Greenhouse on the south side of the house, plus other doors and windows aligned with the four cardinal directions to admit free flowing air, provide visual connections to the outdoors, and highlight the seasonal sun cycle.

The house design includes six basic elements. First, the existing house will be utilized as the bedroom wing. Second, a two-story core structure will be built to include the kitchen and wood-burning 'hearth' for heat, plus office and storage space on the second floor. Third, a one-story living room will be built later, featuring clerestory windows, a circular valance, and a 'spring pool' through which roof runoff flows; windows, eaves, porch roofs, and the south-facing U-shaped building are designed to optimize winter sun and summer shade. Fourth, connecting the aforementioned elements is a breezeway/ greenhouse featuring a south wall of operable windows, an outdoor arbor for summer shade, and doors aligned to allow

people and air to flow directly through the house from one side to the other. Fifth, porches also provide connection between indoors and out; an open west-facing porch bends around to the entrance and encloses a shady pocket garden, while the existing porch to the east will be remodeled and screened for summer sleeping and dining. Sixth, northeast of the house is a utility corridor for existing utilities, wood storage, root cellar, and clivus maintenance. The northeast corner of the core house is an open lightwell and stairway leading to both the Upper Terrace and the second floor.

Relationship to Land. Regarding existing conditions, the landscape design strives to keep the Upper Terrace open and free of auto traffic, to use the gently sloping land southwest of the existing house for outdoor living, and to retain the greenspace east of the house.

Regarding grading and drainage, it seeks to minimize regrading key areas of land (e.g. the Upper Terrace) and areas vulnerable to erosion (the exit drive). It also seeks to minimize disturbance of existing hydrology and avoid concentrated flows. Gabion retaining walls allow water to flow through.

As the title Crossroads suggests, the landscape plan seeks to define the transition between the uplands and the lowlands, with the house occupying that transition zone. Plantings of natives provide corridors for small wildlife to move through the domestic landscape from the uplands to the lowlands. Two enclosures exclude deer from the Upper Orchard and the Garden. Fruit and nut trees provide food on-site.

As the title Breezeway suggests, the house design seeks to make the house permeable to air and light in a controlled manner. Cross ventilation is provided by doors and windows in alignment, while vertical ventilation is provided by operable skylights in the living room and bath, the lightwell to the second floor, and windows and an exterior door on the second floor.

Local resources, primarily wood and solar gain, are used for space heating, and solar panels supplement the heating of hot water. The residual heat of the hot water heater, solar gain through a frosted glass block wall, and warm air from the breezeway/ greenhouse help keep the bathroom warm. Modest earth berming against the north wall and thermal storage in a cistern under the living room also moderate temperatures.

Natural light is provided by generous glazing (glass doors and windows) on the south and west sides, by the lightwell in the northeast corner of the core house, clerestory windows in the living room, skylights in the living room, bath, and second floor, and the glass block wall of the bath.

Water use is reduced by installing a clivus toilet, freeing up greywater for use outdoors down-slope of the South Terrace, and roof runoff is intercepted and stored in a cistern for use in the garden.

Wood bins located in the Utility Corridor northeast of the new house are convenient both for unloading wood trucked down the woods road and across the Upper Terrace, and for hauling to the fireplace.

Construction materials may include on-site trees for framing timbers, and fieldstone for the gabions.

Chapter Four: Discussion with Two Illustrations and Professional Context.

I. Conversation.

‘Language’ is often used as a metaphor for various aspects of design. Designers’ speak of a ‘design vocabulary.’ An influential book in architecture is titled *A Pattern Language* (Alexander 1977), and another one about landscape is titled *The Language of Landscape* (Spirn 1998). Yet none of these uses of the idea of a language of design adequately address the practice of *speaking* such a language as a function of communication among people or interaction with the environment. This essay may expand the notion of a language of design by likening the design process to ‘conversation.’ And if one aspires to collaborative, ecological design, design by ‘conversation’ may be more appropriate than design by ‘concept.’

It is important to state here that I am using the word “conversation” in both a literal sense and a metaphorical sense.

Literally I mean social, verbal dialogue between people, generally employing spoken dialogue but also including other means of communication. Metaphorically I mean reciprocal or “dialogic” physical/material interaction between people, each other, and other kinds of beings in the physical/material world, especially the land or habitat. With both meanings I especially want to convey the sense of “taking turns,” and it is this sense of taking turns that leads me to prefer “conversation” over previous choices in terminology such as “collaboration” and “mutual practice”. Terms such as “collaboration” convey the vague sense that individual differences among participants and alternative modes of engagement are to be absorbed into one smooth, unified, undifferentiated activity - which is rarely what happens and is not necessary or even desirable for the purposes of design described herein. The term ‘conversation’ does a better job conveying the image of different participants taking turns in a common activity that helps them make connections. In this sense, ‘embodied conversation’ is a way of sustaining the ‘alternating modes’ referred to by Jackson and the ‘bridge-building’ referred to by Jordan in the introduction above

What follows is an essay to elaborate upon this broad notion of ‘embodied’ conversation in design, and two illustrations of the use and function of conversation in this project: a portrait of one day of field work, and excerpts from closing interviews with the clients, each illustration followed by an explanatory ‘caption.’

Concepts. Foregrounding ‘conversation’ in no way implies a desire to forgo the use of ‘concepts.’ We couldn’t if we tried. Concepts - the way we lump the world into words and ideas - are important means for making sense of the world. However, from the pragmatic point of view, the meanings of concepts are to be found in how they are used and what they achieve in dialogic interaction with the world, socially and materially, not in how they may be defined as independent, transcendent truth claims or inherent properties of the world.

Design concepts are indeed useful for design, providing frameworks for thinking about and expressing ideas. However, if one is trying to use design to nourish functional ecological relationships between humans and their habitat, some concepts may not be particularly useful. As beautiful as the rational

landscapes of Andre le Notre may be, or as provocative as the deconstructivist works of Peter Eisenman may be, these concepts are used like dies to stamp or mold the land with little interest paid to how the land responds ecologically. Peter Walker’s beautiful art, of which I am fond, is described as a “dialogue with the land.” However, if the land is even remotely conceived as an ecological community it is hard to imagine how replacing the abundant diversity of native organisms with an exotic species diversity of two or three can be considered a dialogue with the land. Concepts, like guns, are perhaps not the problem; the intentions behind them, and their uses, are the issue. Of course humans need and use concepts, but the land doesn’t, and we need to learn other ways to allow the land to inform our designs. Rather than using concepts as human statements upon the land, ecological design calls for using concepts, along with other means, in reciprocal conversation with the land.

Conversation. Conversation implies a number of other interesting qualities and characteristics about the interaction between people and each other, and between people and their habitat. A primary feature of conversation is the practice of “taking turns,” as described above.

Second, conversation may not be construed as a fundamental principle nor an inevitable “given;” it is an occasion or event, and it is a voluntary practice or skill. Although commonplace among human cultures, it is actually often difficult to carry out well. Conversation may suffer from participants’ inexperience, carelessness, unwillingness, lopsidedness, insincerity, inattention, unintention, distraction, disruption, or other detriments. Or it may be practiced patiently, carefully, willingly, with balance, in good faith, with attention, and intention.

Third, conversation is a voluntary practice for two or more participants. It is interactive or transactive. It involves reaching out to another, to others, to The Other, taking turns reaching out and receiving each other through a common, mutual, reciprocal activity. Lectures, soliloquies, and

monologues are not conducive to good conversation; nor are unmitigated prejudice, dismissiveness, meanness, hurtfulness, and other common vices and social pitfalls.

Fourth, conversation does not presume equality, agreement, conformity, or uniformity among participants. It does, however, benefit from the exercise of a certain degree of willingness an/or restraint as needed on the part of all participants, to negotiate a kind of balance in the interaction. Conversation can accommodate and balance differences to the extent that participants practice willingness and restraint as needed.

Fifth, while conversation does not require that participants’ purposes and meanings be the same, it does require some shared means of communication, some common link. Communication implies the achievement of some degree of common baseline understanding or empathic connection among participants, presumably through a combination of physical/material interaction and intellectual imagination. Language, sign language, body language, graphics, art, science,

and/or shared experiences may fulfill this requirement for people; other modes are needed to accommodate other beings.

Sixth, conversation involves alternation, not only in how different participants take turns contributing to the activity but also how each participant alternates between different modes of being and different means of engagement, e.g. speaking and listening; contributing and receiving; engaging in activity and pausing in retreat; engaging with the world symbolically and engaging with the world physically/ materially. Metaphorically, it may also involve alternation between wholly different kinds of beings, e.g. people and land.

Seventh, time and timing play an important role in conversation. Alternations may be observed to require certain intervals of time and to flow with an approximate rhythm or cadence of their own. The pace or tempo depends on the modes in play and the nature of the conversants. Also, as ongoing activities, conversations acquire a history of their own and are part of a larger history of human discourse.

Eighth, conversation generally calls for a certain degree of inventiveness in order to sustain the process. Means, meanings, uses, purposes, and so forth are not all predetermined before engaging in conversation, but to some extent emerge or are invented in the course of conversation. Ordinarily the purpose for conversation is less to achieve some predetermined end, and more to share in an activity whereby larger relationships may be sustained and, if not improved, then perhaps better understood. It is not that conversations are purposeless or meaningless or useless, it is that purpose may emerge in the process, means may be invented, meanings may be clarified or attributed, uses may be made with each turn taken, and conclusions may be drawn, appropriately, at the end. Therefore, attending creatively to the **process** of conversation is vital, whatever fruits it may bear.

Ninth, as conceptual means, meanings, and purposes emerge over the course of a conversation, so do the associated material forms, physical actions, and ecological relationships also emerge and evolve over the course of not one but many conversations, as an ongoing, embodied, conversational relationship between different participants.

It is conversation's ability to accommodate different, alternating modes while at the same time providing the opportunity to make connections and find commonalities that I wish to focus on in this discussion. The interchange back and forth between different conditions, actions, manners, and methods of acting or doing, taking turns at different ways of being and acting, all make for the richness and rhythm of good conversation. It allows us at times to find commonalities, at times to define differences, while still participating in a common activity, remaining linked in reciprocal interaction. This alternation employs a variety of different modes and means, occurs at different scales of interaction, and follows different rhythms, tempos, and histories.

In preface to the following sketch of various modes and means useful for conversation in design work, a few remarks are needed. First, although "mode" connotes a manner of being, doing, or acting, and "mean" connotes a tool useful for being, doing, or acting, the dictionary (Random House 1975) indicates they may be used as synonyms. I subscribe to the notion that tools are functional extensions of the body-mind,

and that manners of acting or being are inextricably linked to means of acting or being. Therefore I will use these terms interchangeably, preferring one or the other for nuance or emphasis or conformity to common usage depending on context, rather than using them for distinction or separation. Also, while I am using distinctions between various modes of being and acting, I use the distinctions provisionally; I am not arguing for or defending the distinctions as hard and fast features of nature.

It scarcely needs mentioning that, among people, conversation is achieved primarily by means of language and the ideas and concepts implicit in, constructed of, and enabled by language. Of course a great deal about conversation hinges on how that language is used and how supported: nuances of meaning, body language, deictic references to the world, social and material context, etcetera. While language predominates, that is possible only because the social and physical/material world is assumed to be commonly available, regarded as self-evident, and taken for granted. If there is any question or doubt about the backing behind language, one conversant or another may demand, "Show me!" Such requests may be satisfied by

referring to the physical/material world, but more often than not appeals are made to social corroboration, to common usage, to shared meaning. It is largely its social use and function that sustains the meaning of language, but that support system is susceptible to erosion. Doubts and difficulties arise when no evidence can be shown, or when the evidence itself is open to or regarded with doubt. When language is in doubt, referring to more language as evidence may not be very convincing. Conversation breaks down, then, not because of differences among conversants but because no convincing link can be found to hold differences together in any kind of meaningful relationship. When ultimate recourse is made to personal fundamental beliefs, conversation ends and/or violence ensues.

In addition to language people have numerous other ways of representing and rendering the world, expressing human ideas and concepts, evoking human responses, satisfying human interests: all the techniques and technologies of art and science, for example, ranging from cave paintings to architectural drawings to models of DNA to geographic information systems. Many if not all of these material artifacts

or renderings may be brought to effective use in “conversation” of one form or another.

Of course many works of art and language (and perhaps also science) are regarded as self-sufficient and independent beings, with no overt references to or representations of other beings intended, capable of expression and evocation quite by themselves. So we may use a work of art and science - a drawing, painting, model, statistic, theory - to communicate in conversation about something else, i.e. we may use it as a rendering to represent or “mean” something else, to refer to something else about the world that is assumed to be held in common amongst conversants. Or we may use a work of art (or science?) as the thing itself, the thing to which conversation refers, the direct link through which conversation flows, the very thing that is held in common and that is being discussed.

The difference, then, between interacting with a thing itself (what I call direct interaction) and interacting with representatives, substitutes, or derivatives of that thing (what I call indirect interaction, or the use of renderings) is a difficult, confusing, and important issue. There are several points of

confusion. Like works of art, things of the world - the *same* things - may function, for human purposes, either as representatives of other things (symbols) or they may function as things themselves. Things alternate between different modes of practical function. Words, drawings, and renderings are not only useful in talking about other things, they are also things in themselves, and they are interesting for their own ways of being. Furthermore, in many ways words and other renderings *define* things, *make* things in certain ways and not others. The way we carve up and mold the world using language, concepts, maps, and other renderings has real, material consequences that are part of the world too.

The crucial point, nonetheless, is that however *we* define, carve up, and render the world (“we” individually and collectively), there are also other beings and other ways of being that are also part of the world and contribute to the world. *There are Others*. The world is not our creation alone. We and our renderings are part of the world only in company with Others, or if you will, in conversation with Others. It is the effort to honestly engage in direct interaction or “conversation” with Others, taking turns with Others in their

presence, and not always talking about or manipulating Others as our own renderings (in effect, talking to ourselves) that I wish to recommend for ecological design work.

Consider for example a rose and all the ways in which a person and a rose may interact. (If a rose is too quaint a subject, the reader may reflect upon interactions with food animals, especially if you are privileged to have had your own experiences raising or hunting live creatures for food as well as buying hamburger at the supermarket.) Interactions between a person and a rose include naming it “rose,” classifying it with other plants, smelling it, turning it into perfume, smelling the perfume, sitting beside the rose, looking at it carefully, painting it, looking at the painting, taking a photograph, using the photograph to sell perfume, pollinating it, watching a bee pollinate it, inserting a firefly gene into its nucleus so it phosphoresces (it has been done), writing a poem about it, reading a poem about it, imagining the rose, drawing it on a landscape plan, planting it, cultivating it, responding to cultivation, inspiring a painting, emitting a scent to visitors, climbing over a person’s window, embracing a person’s grave. On the one hand we may think of these interactions as a

continuous spectrum or field of ways in which a human and a rose may interact, actively or passively, directly or indirectly. Not only does the subject act upon the object, the object also acts upon the subject; it's just a different verb.

However, I assert that the cleavage between direct interaction and indirect renderings is important. It may be likened to the difference between talking *with* another person versus talking *about* another person. In alternation and balance, both modes may contribute to one's understanding. Talking with another person is an opportunity to develop a personal, multi-dimensional relationship, and to share in a common activity. However, *only* talking with the person may make it difficult to see the relationship objectively or in context. Talking about another person may enlarge one's understanding and help one to see things differently, from a different point of view. But *only* talking about another person deprives one of any way to evaluate one's own opinions, allows one to believe whatever he/she thinks, wants, or imagines, and prioritizes one's opinions or ideas over the person himself or herself. To know or believe in roses only through paintings, perfumes, and poetry may spark rich

imagination, but it is a relationship bereft of the raw, bittersweet, full-bodied joy of shutting off the internal dialogue for one moment, plunging one's nose into the soft petals of a rose, breathing deep, and just hanging out with a quiet plant. Being in the presence of a rose does not guarantee that the rose will speak - they don't speak English anyway - but it is an opportunity to listen to the leaves rustle with a breeze, relish the scent, marvel at the color, enjoy the company, feel the same sun that feeds the rose, prick one's finger and bleed a drop of live blood - however it is that a rose may speak to a human being. The rose itself may reveal something to us, something new, surprising, something that had never occurred to us before, something we hadn't imagined to ask or think about, something beyond what we tell ourselves in our renderings of a rose. A painting of a rose has a lot to teach us - about the rose, about painting, and about human ideas - but a rose itself also has something to say, something else, something vivid.

Direct physical/material interaction, then, lends credence to our language, provides alternative links when beliefs and meanings diverge, and it is the only means for people to engage in "conversation" with the physical/material

world itself. Not all direct interaction with the land is “conversation”. Extracting confessions from Nature on Bacon’s scientific torture rack is not conversation, nor is leveling the land flat for acres of asphalt parking lot. But conversation with the land does necessarily require direct interaction. Without any other means *in common*, people and the land must interact physically/ materially. For our part as human beings, of course, we make sense of the world and our own actions in terms of language, ideas, and concepts, but to the land, to our ecological community and conversant, it is our physical/material actions, and the opportunity for the land to respond in its own way, that ultimately count.

While interaction with habitat may be inevitable, directly or indirectly, “conversation” with habitat, like conversation among people, is not a fundamental law of nature, it is an occasion and a practice. It requires looking for opportunities and looking for means to engage. It calls upon different modes of being, for different needs, in alternation. As people and habitat alternate between different modes, it takes on a rhythm and pace of its own, clearly different from the quickness of human intercourse. Whereas purposes, means,

meanings, and uses may emerge in the process, conversation with the land is meanwhile an activity, an interaction, whereby underlying relationships may be made, sustained, and better understood.

It is legitimate to question whether interaction between humans and habitat can really be construed as “conversation.” After all, we humans are stuck being human, limited to our own faculties through which we experience the world, including our mind of fertile imagination, while the land and Others have their own ways of being. How can one ever really escape the confines of one’s own self and come to understand the land on its own terms? Short of transcendental or religious experiences, perhaps one can’t. However, the same question must be asked about the interaction between two people. Ordinarily we cannot really read another person’s mind or know exactly what it is like to be that person, or even know without any room for doubt what that person means when he says “I love you” or “It’s snowing.” And yet, using the means and modes available to us, we can come to what is commonly thought of as understanding, as a mutual relationship. Among humans, we use language, ideas, imagination, empathy,

renderings, hugs, kisses, shared experience, etcetera to get to “know” one another. Between us humans and the land, even while ideas move through our minds and words form in our mouths, we must also find other ways to enter into mutual relationship with the land. As I understand it, without any other “language” in common, that is why direct, physical/material interaction with the land and habitat, taking turns in balance and in various modes - i.e. in conversation - is so desirable if not vital.

All the various human faculties and capacities - e.g. intellectual, physical, emotional, transcendental, and so forth - also function as various modes and means in conversation. The intellectual mode was touched upon in the discussion of language, and the whole panoply of human faculties is implicit in the notion of direct interaction, to one degree or another - intellectual, physical, emotional, and so forth.

Not only are there diverse participants in conversation, and not only may each participant move through or alternate between various modes of being and means of engaging in

conversation, conversation also takes place at several nested levels or scales of aggregation and interaction.

Consider for example just the mode of language. At the level of the individual, each participant alternates between moments of listening, moments of speaking, and perhaps if necessary, moments of pause in between, to incubate, make sense of what one has heard, and/or formulate a response. These “moments” may in fact overlap; the various functions may seem to occur simultaneously in ordinary conversation. But still we commonly distinguish between speaking, listening, and sometimes pausing to think . Thus, in conversation, each participant alternates between different linguistic modes.

As a group, alternation may also be observed to take place between participants. We “take turns” speaking in conversation. The speaking alternates or rotates from speaker to speaker. So the alternation between different modes in each individual multiplies with the alternation between different individuals.

Furthermore, as a group of people in an ongoing, “conversational” relationship over time, there will be times when the group is together and actively engaged in conversation, and there will be times when the group is perhaps dispersed, the interims between conversations. These pauses in the activity are vital to the activity itself. They are times of incubation when we let the experience of active engagement “sink in.” They are reflective times to muse over, think about, and try to make sense of what was said in conversation. They are times to formulate a response, to figure out what one might say in reply. And they are times to await and/or look for the next opportunity to engage in active conversation once again. So the relationship itself may also be seen to alternate between modes of active engagement and modes of the interims.

Finally, if the relationship between people in the group is opened up to include other beings, non-human beings with whom we interact through other means and modes in addition to language - that is, if the group’s relationship over time expands beyond being a human social relationship to being an ecological relationship with numerous, diverse beings - then the systemic alternation and interaction of modes, active and

passive, direct and indirect, becomes literally incomprehensible. We tease out a few details with language, art, and science, we speak in grand terms of “ecosystems,” the “balance of nature,” the “web of life.” We can try to understand it but we cannot capture it intellectually. We cannot control it, we can only participate in it. Rather than talking at the land in one desperate human monologue, as we are in the habit of doing, it may help the relationship to sometimes shut up, be patient, and try to notice how the land is responding, what the land is “saying.”

Not enough can be said here about the important role of time in allowing for these alternations to take place, the role of patience to allow Others to take their turns. Such alternations over time can be thought to acquire a kind of rhythm and tempo, depending on who is participating and what mode or means of engagement are used. In casual, low-risk conversation, a person may listen, formulate a response, and speak virtually simultaneously. Other circumstances might lead a person to take time, listen closely, consider what is being said, and be careful in responding. Similarly, the role of

speaker may pass back and forth from person to person relatively quickly or slowly, with or without pauses of silence.

A conversational relationship may involve encounters every day, once a week, once a month, or at other intervals, depending on the desires of the participants, the opportunities to engage, the means of engagement, and the uses of the interims. Ecological relationships, of course, have a pace of their own, “at nature’s pace” writes Gene Logsdon. It takes time for a goat to make sense of human habits and learn to cooperate, more or less, at milking time. It takes time for a transplant to adjust to a new environment and begin to flourish. It takes time for a garden to respond to organic husbandry. It takes time for a field, once left undisturbed, to regain its cover of mature oak woods. Thus a conversation with Others, with the land, calls for not only the sustained attentions of individual people, but also the transmission of a culture of habitat from generation to generation, like the care of thousand-year-old bonsai trees.

In addition, history plays a role in conversation: the history that provides the cultural and temporal milieu, the

history of the conversational relationship, and even the history of each conversation. Over time, conversation can change and build and break down and evolve in any number of ways, predictable and unpredictable.

Being attentive to the function of time in conversation raises an interesting question about the role of technology in doing design work. Speed may not be desirable if it inhibits the function and integration of different modes of interaction, some of which proceed at slower rates than others; if it discourages participation by a diversity of conversants because some of them don’t function well at the speed of digital machines; if it compresses or depreciates the pauses, the interims during which critical functions take place ranging from incubation, reflection, and formulation of reasoned responses to allowing time for ecological processes to unfold in response to human actions.

II. A Portrait of June 10.

I pull my truck onto the gravel trailer pad above the house, where the pine-oak woods come close around and an old pigsty falls slowly back into the ground, and shut off the engine. There is always something about that moment when, after a roaring, hour-long drive from Blacksburg, the engine dies. The quiet is so refreshing, not just for the lack of engine noise but for the quality of quiet here at the farm, different from quiet in town. Then I pick up quiet voices. Today the breezy woods go “Ssshhhhhhh,” the freshet in the hollow goes “Ssshhhhhhh,” and I am compelled to be even more quiet in my thoughts and just listen, and smell, and feel. Occasionally the echo of flute song emerges from the woods; the wood thrushes are still singing this fresh, mid-June morning.

We have had a rainy spring. Sometimes we have had to do our workshops crammed onto the narrow porch or into the tiny multipurpose living room to keep things dry. Sometimes we have had to altogether forgo some of the activities planned. But today we are lucky. It is a gorgeous late spring day, the

sun is embracingly warm but not hot, the breeze is refreshing but not insistent, the atmosphere is softened by a light haze but down below, to the southwest, we can still see a long, long stretch of Walker Valley as it squeezes between mountain ridges and disappears into summer.

Matt and Sally are settin’ out on the porch of their dilapidated farmhouse looking like a handsome young couple from 1930’s Appalachia. Sally is in the rocker with a shawl over her knees, beaming, sipping a mug of hot beverage, and savoring the rare relaxation this Sunday morning. Matt is propped against the ice chest on the porch, his ripped jeans, faded blue T-shirt, and bare feet detracting nothing from his health, sipping similar hot beverage.

“Hi Pete!” Matt says, smiling. “Can I fix you one of these fru-fru coffee drinks? I know you want one ...”

So Matt disappears through the screen door into the dim kitchen while I exchange greetings with Sally, until presently I hear The Who shouting out “My Generation” and see Matt in the doorway playing the air guitar.

In many ways Matt and Sally Bewell are new pioneers, trying to carve out a meaningful way of life in a bewildering world. In other ways they are the quintessential modern

couple, negotiating a precarious balance between different pressures and sometimes conflicting desires: living in the country and working in town; ostensibly homesteading and commuting hours daily; raising a family and needing daycare; seeking immersion in nature and needing a social life; wanting a low-impact house and wanting more room; appreciating beauty and tolerating lots of clutter; being present and being busy busy busy. Even their personalities are a study in contrast. Matt works at the university teaching a course on leadership skills and coordinating student service work for a wide range of community activities. He describes himself as reclusive and visionary. Sally, trained in engineering, works at home designing Web pages for the impressive clients of a high-tech company in Northern Virginia. Matt describes her as social and pragmatic. Yet their dreams are big, their energy strong, and as Matt described it once, they share a similar vision as “an arc on the horizon,” following paths sometimes divergent, sometimes convergent, but more or less headed in the same direction.

Missing today is Robin, their vivacious three-year-old daughter, herself a study in contrasting moods and modes: one moment tip-toeing delicately along fallen logs to her “tiger

forts” in the woods, wearing hand-sewn moccasins; another moment dressed pretty in pink, the epicenter of a small earthquake over supper as though she were being fed earthworms instead of the delicious Persian rice and fresh salad. Today she is with her aunt. This means that it may be easier for the three adults to focus on our work, but it also means that I won’t have my helper to moisten the sand for sandcast modeling, and there won’t be any dirt piles blossoming forth with crowded, colorful displays of survey flags.

So today we are unusually relaxed and focused, but also expectant in that slightly uncertain way typical of these workshops, not knowing how the day’s activities will unfold, whether they will work, what we will have in the end, where we will be in the process. The activities I have planned are not brand new inventions but they are not exactly standard practice either, and for all of us - novice clients and novice designer - this is all uncharted territory. But we are ready. Without handing out the outline for the day or even sitting down, I just lean against the porch post, talk about the two main objectives for the day, and describe the opening exercise.

One objective is to widen our field of view so that the focus of our attention - the design of the new house - recedes a little bit into the larger context of the landscape, so the house is viewed less as an object by itself and more as a part of the landscape, like a hermit's hut in a Chinese landscape painting. If we reconsider the project as not a house design project but a landscape design project, and think in terms of our objectives for developing, improving, repairing, or modifying the landscape, how can we use the design of the house to contribute to those objectives?

To address this question, I picked up on one of Matt's earlier idea from May 31; he suggested spending some time imagining the landscape without any buildings at all, not even the existing ones, to get a feel for what areas are special and deserve protection, and what areas need repair. As a variation on that idea, today's plan is for each of us, individually, to choose a personal "power spot," a place outdoors within sight of the house that has special meaning or beauty or other significant quality for that person, spend some time sitting there quietly alone, then convene at each spot to talk about it with each other. Three main questions will help structure the conversations: What is the significance of the spot? How do

you envision the new house as viewed from the spot? How will the new house affect the spot and surrounding landscape?

So I hand my watch to Matt with instructions to give some wild bird call when 15 minutes or so are up, as a signal to convene. I suggest the call of the yellow-bellied water screamer, but Matt says he is more familiar with the call of the northern water shriveler, a related species. We laugh, then disperse to find our spots.

I head for the 'Upper Terrace,' a small bench of land above the house to the north, but I see Sally hanging around there, so I find a beautiful spot under the three large walnut trees southeast of the house that the Bewells have nicknamed "The Three Sisters."

It is, indeed, a beautiful spot on a beautiful day. The Three Sisters form a sort of peninsula of shade reaching up from a deep wooded hollow into the fields and toward the house, bringing with them squirrels, nuthatches, scarlet tanagers, and other woodland residents into the company of humans. They also attract field and edge-habitat species to their branches, species such as robins, indigo buntings, and ruby-throated hummingbirds. From this vantage perched at the corner of the yard I can look left down into the hollow crowded

with tall oaks and tulip trees, straight ahead across the valley to Walker Mountain looking like the Great Wall of China in blue, or right past the house to the garden gate and the hay fields in the distance, each bright view framed by the dark trunks of the walnut trees. Today the land all around is basking in glowing sun and dappled shade, brushed by light southwest breezes, poised between the exuberant bustle of spring and the languid contentment of summer. I feel like I could either compose a symphony or take a nap, one or the other, on the spot.

Oh! There it is, the wail of the wild bird calling. Fortunately Matt has allowed us to linger longer than the time suggested, so when we convene first at Sally's place, we all look at each other shyly, sigh, and breathe deep breaths. For a moment we just watch the fields of June grass waving in the wind. Then Matt comments:

"In the last part of *The Spell of the Sensuous* he makes, um ... It's funny how you can read one thing and it really changes your awareness. He makes the case really strongly in the last chapter of how sacred the air is. He goes through all the different cultures and stuff. The Navajo and Hopi call the inspiration inside us "our little wind," that each of us has a "little wind." And that awareness has really been with me

constantly. I take a deep breath and go, "The air is really sacred." And to see the spirit of the wind - and you know the words "spirit" and "wind" are always seen to be etymologically related - you can see it running through the field, kind of. It's really great."

"You have really good retention of books," I reply.

Sally has chosen a spot not on the upper terrace as I had thought, but on the rough plank deck on the west side of the house, the remnant of the floor of the original log cabin since torn down. We all sit down cross-legged on the planks, still shaded by the house from the late morning sun, while Sally tells us about her "power spot."

Sally: Well, I want to start with why I chose being here.

Pete: Oh yes, yes.

S: As I walked around the house I was thinking about, first of all, where do I choose to go outside? When I have a few minutes, where do I go? And there are a couple of places around the house where I go, and a key element of why I go where I go is, that it's in the shade but it looks at the sun. I need to be near the "edge." I don't want to be sitting in the middle of a BIG expanse of shade, but I also don't often choose

to sit in the sun. I like that edge. And it's fairly close to the house, usually. It's often on the stoop, or down here [on the old floor deck].

So I came here. I was going to go down there [to a level grassy area under two walnut trees by the garden gate] but then I thought, "Well, Matt is right there so I won't do exactly the same spot." But it was interesting that both of us were drawn to that place. I think part of that is historical for me. We lived there on that spot for a long time. It just feels good to me. But I also thought this was better [on the deck] because I was up a little higher and I could see the fields. And that's part of why I really like this spot. I can see the fields.

So when I envision the house addition ... One of the things we always do [in our designs] is, we make a porch here, in almost every configuration [of the designs] -----

S: I like that intersection of shade and sun. And one other thing I noticed while sitting here was that I use the shade of that tree in the late afternoon.

P: Of this hemlock tree? [a small hemlock tree 25 feet from the house, afflicted by adelgids]

S: Yeah.

Matt: Yeah. I love that little hemlock tree.

S: It makes this little circle of shade right there, and I use that a lot. So I was thinking, we're probably going to cut that tree down, so we probably need something similar on that side of the house to make a shady spot late in the day. Or something else that fulfills that need for shade late in the day, that is also accessible. The front porch [on the east side of the existing house] is shady late in the day but for some reason a lot of times I want to be on this side of the house [the west side]. And that's the spot [by the hemlock tree] that's shady late in the day.

P: So, I want to make sure I understand a couple of things. You talked about being on the "edge" between shade and sun and also between the indoors and the outdoors. Are there any other "edges" that come to mind?

S: I was also noticing the wind. Sitting here I'm protected from the wind. But if I were hot I could move out into the breeze, or if I were cold I could move back into the shelter of the house.

P: Uh huh. OK.

S: I don't know, I guess it's not really an edge, but I don't like to be too low. I don't want to burrow in. When I come outside

I want to be high enough so I can see and feel kind of open. The openness is a big part of why I like this particular part of the land, because it just feels open and big to me. I can remember being in Kansas and loving that feeling of being open. But I like this even more because it's a kind of bounded openness.

M: Yeah.

S: Which is really neat. I like that. I do go into the forest but I also really like to be out in this open space. And retaining that, or making it even easier to feel like that is part of the house, is important to me. But with caveats, like the shade, and the tree.

S: I don't think that is very well thought out [her ideas about how to connect the house to the landscape], but ...

P: It's great, it really is. It's fine. In fact, you might think this is all redundant. You know we've already said all this before, but to me that's important. That's a sign of a strong idea, that we revisit these ideas again and again and they still hold up under scrutiny. Now we're thinking about how the house sits in the landscape and we're still talking about interacting with the slope, and stepped roofs, and addressing the southwest

view, and that sort of thing. So, this is great, as far as I'm concerned. I hope it doesn't seem too redundant to you, but for me it's important to hear these ideas again and again because then we know they're durable ideas.

S: Yeah, and I think it's really important to sit out here and talk about them.

M: Yeah.

S: Because I got a different feeling as I was sitting here.

M: Yeah, it's different than standing in there [the living room].

S: Yeah, I'm really glad that we're doing it. And one thing that came to me is ... We've always talked about cutting those trees down [two trees by the garden gate] because they're walnut trees and they're over the garden, but I really like those trees!

So ...

M: Maybe one.

S: Maybe that one.

M: It's going to be very difficult to get rid of two of them and I don't think it's really necessary. I was having the same thoughts sitting down there [at his "spot" under the two trees].

S: Oh good!

On that note we shift to Matt's "power spot," under the shade of the two medium-sized walnut trees southeast of the existing house, at the gateway into the quarter-acre garden.

M: This spot was the former front porch of our home in the trailer [a small camp trailer the Bewells lived in for a good part of their first year on the farm].

P: Yeah, that's what Sally said. I keep forgetting that you've been through that kind of history with this place. That's important.

M: Yeah. It was a wonderful summer.

S: It was.

M: We had a little [outdoor] cook station and the rocket stove there, and a couple of picnic tables set up

M: [camping outdoors] really transforms your consciousness. I mean, that is why the "secret spot" is the core routine of Wilderness Awareness School, it's that 'time outside is the teacher.'

P: Amen

M: I think definitely my fondness for this spot comes from our living right here. And I've always seen ... I'm frustrated. One of my frustrations in this process is the conflict - if you want to call it that - between what is, and what's possible, because our patterns are ... Tom Brown says animals are instruments played by landscape. That's a unique ... that's not the only way it is, but I think that is a good re-emphasis of how we are. We're really played by the things around us. So ... I think that this whole area west of the house is really under-explored and under-conceptualized. So it's kind of frustrating to be thinking through what the new house will be, and how it will be connected to these places, because there's not that much we [unintelligible] in for them, essentially.

With that being said, I've always felt like this 20-feet in diameter or 30-feet in diameter would be the most beautiful ... I've always seen a house up here [toward the existing house] and this being ... You know, right now it's noon in the middle of June. It doesn't get any more beautiful than this. It's kind of flat, so that's another reason that we used it. We used to eat right over there, before the fence was up. I think for me the interface between the house and the garden is really, really important.

P: Anything else?

M: Yeah. Kind of like what Sally said. It has become really clear over the last month that from here [Matt gestures west] to here [he gestures east] is just stunningly beautiful.

P: Anything else?

M: Well, one thing I was really struck by - I guess this comes back to the built landscape, but - At first, for probably ten minutes, I sat here [facing southwest] and then I thought, "All right, it's time to look up there [toward the north]"... And then I was really struck by how pleasantly this structure can kind of speak to the barn.

P: "This structure" meaning the house addition?

M: The new one, yeah. And that hadn't really occurred to me before, because as we sit in the living room, the barn is sort of beyond the perimeter of my visualized thought. But sitting here [at his "power spot"] it was like, "Ohhh!!" And the barn has the roofline that I like. Maybe it will look kind of neat. Just looking this way helped me see more of how the garden could

be some day, and all its potential, and how much potential there is in just this quarter acre here.

[Pause]

P: I think it is really interesting how, you know, as you seriously contemplate a shift in your living pattern a little bit, because of this addition, your awareness of other aspects of the landscape probably will change too. I mean I guess they already are starting to change, a little.

S: Uh huh.

M: Yeah, definitely.

P: Yeah, so ... I think the barn is a great structure

S: [two minutes of dialogue later] Can I throw something in about this spot?

P: Sure!!

S: What you just said brought up the whole ... I'm really excited about the interface that way [toward the barn] from the house, too. Changing the existing pattern, of how we've left the fence along the road up there even though we don't really do anything with it - the fence that runs in front of the barn, out from the doghouse - I'm excited about changing that whole pattern. And one of the reasons is just what you said. It's

going to be easier to be connected to the barn because we're going to have an extension of the house that goes that way. So we're going to interact with that space more. I think it's going to be a nice change.

M: I have to say, contrary to what we've been thinking and talking about - and again, this is not our primary outdoor space, but - a lot of times when we're out here the west wind has not been so bad. I can't remember any times when I've sat out here even in the garden and really wanted a greater degree of shelter. Maybe it's just because of when we're out here or something.

P: You're out here in the warmer months.

M: Yeah, yeah. So that's just one observation.

P: I appreciate hearing that. I think the wind is an issue and we need to address it, but it's not always a bad issue. It's not always a negative. Like right now it's like balmy breezes! You can't beat it! It's like Hawaii!!!

M: And then we should think back to our time in the trailer, Sally.

S: Yeah, I'd have to say I disagree. I understand that you feel comfortable [with the wind] but we have been out in the garden together and you've felt comfortable and I've felt uncomfortable with the wind, because I'm not as tolerant of it. I think you're very used to it and that's great, I want to move more towards that, but ...

It is after noon and we are getting hungry, but we sit for a moment under the other cluster of walnut trees southeast of the house, The Three Sisters, my "power spot." Like Sally's spot, it is on the "edge," and may serve as a link between the domestic landscape and the wooded hollow. Looking around, one sees layers of views: foreground, midground, background, and far distance. It would make an ideal place for a bench, a destination in the landscape a bit removed from the house, and a good launching-off point for a lightly improved trail leading down into the woods. Like Matt's spot, it already has a history with the family and a material artifact of that history: a rope swing put up on a day of family time together.

We also pause briefly on the “upper terrace,” one of my favorite spots on the farm because of its gentle terrain and its elevated, expansive view across garden, fields, cemetery plot, hedgerows, woods, and down the long blue valley receding into the distance. Indeed, it could be developed into a wonderful center or courtyard, semi-protected from hot sun and cold wind by buildings, landscape structures, and plantings but open to the exhilarating view southwest. We must exercise care for this place as we consider the design of the house and landscape.

A butterfly catches our attention. Is it a painted lady? A red admiral? Soon it floats away, and we go for lunch.

The second objective for the day is to practice making choices. To this date most of our activities have been: 1- to familiarize ourselves, especially me, with the farm (photography, interviews, inventory and ecology walks, topographic survey); 2- to heighten our awareness of design in our environment (walking tour of architecture, introduction to A Pattern Language); 3- to develop a design program (interviews and conversations, sketching, cardboard modeling); 4- to generate ideas (all exercises); and 5- to practice ways of

expressing and communicating those ideas in graphic or material forms (sketching, modeling, sandcast modeling, trial layouts outdoors). Our brainstorming has produced a flood of ideas about the design of the house, and although our objectives have become more clear, our ideas about how to meet those objectives are still very much in flux. Having generated such a variety of ideas, our task now is to practice making selections. The point is not to make final decisions about “The House,” but to *practice* engaging in a process of selection, to see where it takes us.

The plan is to choose one of our favorite ideas to date and to build a model of it together, in iterative fashion. We will use any or all of the means we are familiar with (sketching, cardboard modeling, sandcast modeling, trial layouts) to identify - one at a time - key design issues that need addressing, then respond with a basic idea, consider the consequences of the idea pro and con, decide whether to keep or toss the idea, build “keepers” into the model, and repeat, so as to build the model choice-upon-choice. The idea is to build a model of “a” house, not “the” house, by making choices or selections *rather than letting decisions float*, and seeing where choice-upon-choice leads us.

After a light, amiable lunch, I suggest that we enter into the selection exercise beginning with either a bare-bones model or a trial layout of our “best idea to date.” Sally lobbies for a trial layout, and both Matt and Sally are interested in pursuing the “Wedge” idea, on an east-northwest orientation. So we take our gear to the west side of the house, where the sun is full and warm, and begin.

Using tape measures and survey flags, we locate and measure the dimensions of the floor plan and flag the corners, running right through the garden fence, junk piles, and thick shrubbery. The floor plan calls for two 18 X 18-foot square modules joined by a broad wedge to create two wings set at a broad 135-degree angle, roughly following the contour of the land. “Like a B-2 bomber!” we joke. Immediately Sally remarks how small it seems. I don’t have to respond, because Matt promptly explains the very thoughts I had while driving out that morning: spaces look smaller under the dome of the open sky. He suggests re-doing the same layout but on open ground where we can layout the rooms in greater detail and “walk through” the plan without having to crawl through the thicket.

We do, but again, Sally is concerned about space; she says the lower floor of the northwest wing cannot be spared for use as a garage but will have to be retained as living space. We talk about how to enlarge one of the wings. While Matt and I use survey flags to extend it lengthwise, Sally disappears for a bit. When she comes back she has the topographic survey plan with her, and she asks if we can use it to study alternative ways to locate and orient the floor plan. I think to myself, “Way to go, Sally!” And now the survey flags are marching deep into precious garden soil - not good - so there is clearly a need to study alternatives.

We discuss the location of the entrance. I suggest the desirability of a common “front” entrance leading from the garage to the kitchen as efficiently as possible. Sally proposes a utilitarian “back” entrance for the first floor and a separate “front” entrance for visitors on the second floor. Mike observes that the shape and orientation of the floor plan make the “crook” of the angle between the wings the obvious place for the entrance, *one* entrance, and suggests building a significant retaining wall against the upper terrace to create a 5- or 10-foot wide passageway to this entrance. Using the existing rough rock retaining wall beside the existing house, I

demonstrate that a 5-foot retaining wall and a 5- or even 10-foot passageway on the north side of the house might feel canyon-like, cold, and uninviting. We explore alternatives: a sunken entranceway courtyard, a stairway leading down to the entrance, earth-berming against the garage, etcetera, and this leads to a discussion of how to route vehicles to the house without their intruding on the garden. By now we are so intently and happily occupied talking about different ideas that any orderly plan for proceeding in a step-wise fashion - generating ideas, evaluating them, deciding yea or nay, and building a model or even doing a layout incrementally based on choices - is beginning to wash away in the flow of activity.

To study these issues further, I suggest that if we want to try minor manipulations of what we've got, or maybe try one brand new trial layout, we might as well continue doing what we're doing, but if we want to experiment with a variety of very different ideas, the sandcast model might be better. Matt suggests bringing the sandcast model around from the east porch and setting it up right on site - "good idea" - so Matt and I go get it and begin to dabble with a few alternatives.

Sally, however, has become especially keen about studying the issue of elevation, and persuades us to give it a try

with the rod and hand level. Sally holds the rod up to the peak of the existing house, I get a reading with the hand level using the same benchmark as for the survey, and with a little head math we get an elevation for the peak at 110.7 feet. Sally says she doesn't want the new roofline much if any higher than that, so as not to diminish the presence of the old house. So we subtract an estimate for the height of the new house - 21 to 25 feet - from the height of the old house, and find out that, if we don't want the new any higher than the old, the new house will have to be set very, very low, with a finished floor elevation no higher than 89 feet. "Wow!" Matt and I wander around and scratch our heads, wondering how much excavating we'll have to do and worrying about how deep, dark, and dank the north-side entrance will be.

Pretty soon Sally calls, "Hey guys, take a look at this!" Sally has been sitting on the grass in the shade of the little hemlock tree, sketching in her sketchbook. Again, I think to myself, "You go, girl!" She shows us a sketch with the floor plan rotated 22-1/2 degrees, enough to set the floor elevation at 89 without so much excavation, and enough to bring the north entrance down the slope and make it less cramped.

“Hum. Neat idea,” I say. “It wouldn’t be quite as good for solar gain - we’re losing the south-facing roof - but it helps with the entrance a LOT, and the elevation.”

Matt asks, “Well, why not keep the orientation we’ve got, and just shift the whole thing down hill?”

So we talk about the pros and cons of that idea, in a spontaneous way, and as we talk our excitement grows: solar gain is better than ever, with less shade from the existing house; bringing the new house near to the gateway walnut trees will help shade windows from the southwest sun and improve ambience, but since walnuts leaf out late and drop early, they won’t interfere too much with the greenhouse; the house and porch are now in close proximity to the garden, strengthening that connection; and there is now a gracefully spacious area leading to the north-side entrance. I mention that this plan would push the south-side social space way down hill, but the Bewells are comfortable with that, and we agree that Matt’s “power spot” under the walnuts might fill the bill for social space just fine.

Matt seems animated by the activity of trial layouts, and Sally seems quite excited by the latest plan. She urges us to study again the issues of how vehicles will approach the new

house, and how the house will look from the garden. We see no major problems with auto circulation, but when we hold up the rod to project the floor plan into its vertical dimension, we all go, “Uh oh.” The rod towers high; the house would seem to loom over the garden.

Next comes the automatic flurry of ideas; we’re getting very good with the brainstorming. How about if we lower the northwest wing to one story only; or lower the floor elevation of the northwest wing; or set back the gable façade and wrap the porch shed roof around the southwest end of the wing; or have the porch step down from the house? Matt says he is comfortable with the presence of the house in the garden, calling it a “strong connection” between house and garden. Sally expresses surprise at Matt for saying so, because she knows how important the garden is to him and she hadn’t thought Matt would like so much “house” in the garden, but she is also cautiously optimistic that the new plan will work.

So am I.

We begin to flag the driveway approach, carting off into the tall grass with fistfuls of survey flags, squeezing through the thick shrubbery with the tape measure, picking off the occasional tick. But the sun is lowering, our energy is

beginning to wane, and soon Robin is back with her aunt to tell us about their day together and show us her art work. As Matt and Sally turn their attention to family, I begin to assemble gear. I find it scattered all around - a good sign!

It is dusk as I grab the last box of gear to take to my truck. Before I go, I pause on the porch to talk a moment with Sally about scheduling and so forth. Sally says, "It's really exciting to see the design take shape!"

"Yeah, it IS exciting. It is an exciting process," I reply, "especially to see the design sort of precipitate out like that. It's like we had this super-saturated solution of ideas, and all we needed was some kind of seed to get things to crystallize. And it seemed like when you got us to pull out the rod and look at elevations, you know, that was it. You said you didn't want the roofline any higher than that, and that was our seed crystal, and everything else sort of fell into place around that. It was really neat! It IS exciting!"

It seems like a fitting metaphor.

III. Epilogue to June 10.

June 10 was a red-letter day in the history of the project. The sense of embodied conversation - taking turns at speaking and alternating between various modes, scales, and cadences, and making connections between differences - was alive and well. It was also very useful.

Several months into the project (May 22), I met with my advisor and described at length the various activities the Bewells and I had undertaken: interviews, photography, photo elicitation, inventory and ecology walks, sketching, building cardboard models, a walking tour of hillside architecture, and other things. Some of these activities are the activities of design education and practice. My advisor wondered aloud if I were teaching my clients to be designers. In part, that is true. I was introducing the clients to ideas, issues, ways of thinking about and ways of communicating about design, for purposes similar to why we hire teachers to teach youngsters to read and write. Most youngsters will not become novelists, lawyers, historians, English teachers, or other professionals centered on reading and writing, but most - we hope - will develop enough

skill in reading and writing to participate in a literate, democratic society. Similarly, I didn't expect my clients to drop their careers and become designers by profession. Rather, I did hope to share with them some means for engaging intelligently in a conversation about design, especially the design of their own house, and to stimulate their ongoing awareness of, and interest in, the use of design in the environment. These means were a blend of both indirect experience through representational renderings such as literature, drawings, and models, plus some direct exposure to and interaction with the environment, such as our walks, "power spot" exercise, and trial layouts outdoors on site.

By sharing these means, a multi-dimensional conversation about design was possible on June 10. Each participant took turns making contributions. Matt introduced the significance of historical bonds to place - the site of their first camp-style home on the farm, under the walnut trees - bonds developed by being there and living with the land; he expressed a clear awareness of how the design of the house will influence their access to and interaction with various places in the landscape, such as the barn and garden; and he made a key suggestion to shift the floor plan we were working

with down-slope. Sally eloquently reflected upon her own uses and preferences regarding the landscape, preferring edges and options to adjust to different conditions of sun, wind, free time, etc.; she kept reminding us to study vertical dimensions as well as floor plans; and by adeptly availing herself of the various tools and media at our disposal, she initiated the key chain of dialogue that led to the “final” floor plan for the day, moving us from “The Wedge” to “Wings.” I helped by widening the discussion about the design of the house to include the larger scale of the landscape; by using the rock wall to demonstrate the feeling of a narrow sunken entrance corridor on the north side of the house; and by keeping the key dialogue going by pointing out - nicely - the pros and cons of rotating the floor plan. Even the land itself spoke to us in terms of sun and shade, calm and breezes, amazing beauty, and the value of particular trees, all of which figured in the design of the house and landscape; it provided an anchorage of sorts, a place of significance in an ecological community, with which the Bewells bonded during their first year camped on the farm and will continue to grow; and it provided delicious and healthy food for lunch.

Alternation between, and recombination of, different means and modes was dynamic and constructive. Sitting quietly outside with our “power spots,” and then talking about them with each other, brought new thoughts and ideas to our attention: the way the new house will enhance the Bewells’ connection to the barn and garden; the way the little hemlock tree and the walnut trees provide shade, greenery, visual depth, and habitat for birds; and the way the Bewells’ attachment to the land, the *meaning* of the land - the little hemlock, the site of the first camp, the sweeping vista to the southwest - has grown out of direct, personal experience and use, including the little bit of experience garnered from or enhanced by the design workshops. A passage in a book together with direct experience with the spring breeze and waving grass brought home to us a deep awareness of Other beings around and inside of us, and an appreciation of their meaning in our lives. Using different tools from the design toolkit added dimension and a touch of real materiality to the ideas in our head. We began with a simple drawing of a floor plan developed from ideas expressed in earlier workshops, but studied it more thoroughly using other tools. Using tape measures, flags, and the land itself to lay out ideas brought up questions about size and about

intrusion into the garden; using the rod and hand level highlighted issues about the height of rooflines and the presence of the new house over the garden; a sketch in a sketchbook precipitated a flurry of thought, dialogue, and activity to formulate, express, and test various ideas, culminating in what seemed like a workable plan.

Nested scales of interaction, and timing too, played important roles in the conversation. Sitting solo at our “power spots” for 20 or 30 minutes allowed time for the land to begin to suggest things we hadn’t thought of before; we had to slow down the pace of our own internal dialogue in order to appreciate what the land was showing us: the importance of trees, the breeze, beauty, and the connection to the barn in our design. Later, rather than wandering around scratching heads with Matt and me, Sally retired to the shade of the hemlock tree to sketch by herself; instead of more active engagement, she needed time to reflect upon ideas and formulate a response carefully. For her to converse in the medium of sketches about complicated issues of design required more time than was available in rapid verbal conversation. Yet her ideas from that pause, expressed as a sketch, precipitated a key dialogue that day. The key dialogue that ensued, about rotating and/or

shifting the floor plan, was remarkable in the steady, measured, and balanced rhythm of interaction between participants and the flow of ideas. It was the rhythm of conversation made possible by earlier, shared practice with unfamiliar means of communication and experimentation, using those means to formulate and express ideas, learning to volunteer those ideas without fear of harsh judgment, evaluating those ideas for their usefulness in achieving our goals - all amongst relative strangers.

The variety of means and modes, the interaction at various scales or levels, and the harmonization of various rhythms and tempos, all made for a lively and productive conversation about design.

June 10 was also significant in that it marked a turning point in the nature of the conversation. Heretofore, conversation on the Bewell project had been very exploratory. We had tried a variety of different activities - e.g. photography, sketching, building cardboard models, manipulating sand cast models, trial layouts, inventory and ecology walks, an architectural tour, and interviews - to familiarize ourselves with the site, heighten our awareness of the use of design in our environment, begin to clarify a design program, generate a

wide variety of ideas, and practice ways of communicating those ideas. These activities were fairly interactive and multi-modal, and the results were tentative and low-risk. These kinds of activities culminated on June 10.

After June 10, the conversation required making more deliberate, cohesive, and holistic proposals, carefully weighing and balancing various options and anticipating their consequences, making judgments about options in the context of a whole design, and using drawings, models, and other renderings more intensively and rigorously. The stakes were higher and it took more time to think through design issues and evaluate design ideas when they were part of a more integrated design. The means used to do so were conventional design practices - drawing, modeling, and a lot of time and focused attention at the drawing board - because they were the most convenient. Without an even distribution of time, attention, and skill among participants, our roles began to diverge, and the nature and cadence of the design conversation changed. In short, the interactions and alternations became more conventional, and the tempo slower. The “designer” undertook the bulk of the work in the interims *between* meetings; the meetings were no longer workshop-style, experiential activities

but were presentations and discussions of drawings and models - i.e. renderings - usually for a few hours in the evening; and the “clients” input was primarily to respond to the designer’s proposals on the spot, by raising questions, by expressing interest and approval or doubts and objections, and by making suggestions for changes and improvements. So, whereas the conversation during the first phase of the project, prior to June 10, was somewhat atypically interactive, multi-modal, and experiential, the conversation during the second phase, after June 10, took on the more conventional format of presentation and response, using drawings, models, and verbal discussions (i.e. renderings) to communicate.

It is critical to realize, however, that the conversation and work done during the latter phase depended hugely on the conversation and work done during the earlier phase. The first phase provided a foundation, connection, and context that thoroughly informed and infused the work of the second phase. Judgments the designer had to make later (regarding, for example, the height of the roof, the finish floor elevation, the location of the fireplace, the location of the entrance, the distance from parking to the kitchen, the distance from the kitchen to the garden, the connection between the new house

and the old, the use of steps, retaining walls, and elevation changes, resources for heating and cooling, paths for the flow of people, air, water, wood, vegetables, and so forth, and the overall form and siting of the house in the landscape) were all made with the knowledge of how these issues emerged, evolved, and persisted through earlier work with the clients. Such knowledge did not make judgments easier to call - referring to the record revealed ample complications such as conflicts in desires, changes of mind, ambitiousness of dreams, limits to resources, inadequacies of design experience, and other normal conditions of life and work for both clients and designer - but it made the judgments more deliberate, sober, and refined.

The significance of this juncture between pre- and post-June 10, made a strong appearance in my notes on July 28 (q.v.). It pointed to a cleavage between two functions: between the generation of many variations and the selection of few, between creation and judgment, between flow and friction, between acceptance and resistance. The interactive workshops of the first phase of work were especially useful in creating ideas and generating variations, but less functional in making judgments and selections. The clients sensed this. Consider

Sally's question on June 20 (q.v.); how do we assess what we are gaining and what we are losing? The short answer to the question, what are we gaining and what losing, is that when we make a decision we are losing almost everything imaginable, i.e. all the countless possible variations of a house that could potentially be built. But we are gaining, we hope, enough that is real to meet most of our needs and some of our desires and pleasures. And that is a lot to gain. One house built is more convincing than multitudinous, marvelous, unrealized ideas.

But that does not address the question, how do we assess? How do we decide, how do we make judgments? No suitable means were found under the circumstances of this project to make firm and durable judgments or decisions in a collaborative, ecological manner. The attempt to build a model choice-upon-choice, and the attempt to do a satisfactory design for a bench, didn't really work. They were by and large failures, even though they were worthwhile and instructive and even productive. They may have been simply failed attempts, but the failures may also be due to flawed presumptions. Different influences and factors may come into play in making judgments compared to generating ideas, and they seem to be numerous, multifarious, 'holistic,' non-linear, and more than

rational. The process of making holistic judgments concerning design may be very different from the process of generating various individual ideas, and different from active ‘conversation’ for that matter. Making judgments on the basis of only rational ideas and tidy concepts (scientific, design, or other), the stock-in-trade of easy conversation, is a high-risk gamble. The closest one can come to sound judgment is to hedge one’s bets as circumstances require: be modest in one’s conceptual ambitions, build in a way that is amenable to reconsideration and change, and keep one’s own individual judgments open to ongoing embodied conversation, i.e. interaction with the world in various forms, over time, including trial in the physical and material world. In the end, anyway, all *a priori*, anticipatory judgments are bets. Decisive judgments take place *de facto* in the functional, multi-modal multi-dimensional, historical world, including but much larger than human concepts.

As Matt said in the closing interview, he won’t know for sure about the design of the house until he has spent a year or two or forty trying to eat from the garden and keep the home fire lit.

Nonetheless, conceptual or *a priori* judgments and selections must be made along the way, and while they fall short of being fundamental truths, they serve the invaluable function of *acting* as points of stability and resistance to launch subsequent work. Even though a rock does slowly dissolve away, it serves well to launch many a canoe trip. Similarly, the Bewells’ conversation about the design of their house and landscape does not end with the ‘final’ conceptual drawings, but the drawings may be very useful in launching the next phase of work, perhaps construction documents or construction itself, and in keeping the conversation going.

So while the nature of the conversation changed on June 10, it did continue as a “conversation” of sorts, building upon its own history to a conclusion: the final design. In reality, though, the conclusion is tentative and the conversation continues still. The final design was submitted to the clients mid-December 2001. It was the designer’s latest, last response in the conversation of design. Now it is the clients’ turn to respond, to either pursue the design - perhaps into construction - or to change the subject. Whatever ideas, and renderings of those ideas, are finally used to begin construction, when forms begin to take shape and functions

begin to unfold, the material world and the land itself will certainly have something to say in response, something worth listening to, and the conversation may continue yet.

IV. Excerpts from Closing Interviews.

What follows are excerpts from individual closing interviews with Matt and Sally. These selections come from their responses to three questions. Two questions came at the beginning of each interview, before presenting the final design: “What are two or three of your most vivid memories or impressions from the project?” and “Which activities were the most stimulating?” One question came much later in the interview, about whether the project (process or product) affected the relationship between the family and their land. Interestingly, both clients also made unsolicited comments about two issues of concern: ‘time,’ and ‘tension.’ These comments are included almost in their entirety. The excerpts are followed by a brief guide to points of interest.

12 DEC 01. CLOSING INTERVIEW and PRESENTATION with Matt, his office, late afternoon.

Pete: [Recites brief history of the summer’s activities] All right now, having just refreshed your memory, can you talk

about two or three of the most memorable occurrences, to your mind? Positive or negative.

Matt: [long pause] The trip to Highland Circle sticks out [the walking tour of architecture, 14 MAY]. The field trip with Tom sticks out [the ecology walk around the farm, 31 MAR]. And then ... [long pause] ... It’s kind of hard to pull individual ones out because it feels like... What sticks with me more is the pattern(?), that has a higher profile in my head than any one thing.

P: Hum. Well, you can start with that, I think. In other words, can you describe that pattern in any way?

M: Yeah. As you ran through that list of activities, it really was true, for the first six, after you said each one I wanted to say, “That was really fun.” Or, “That was cool.” So I think the whole thing for me was, there was a sense of adventure about it (?). Even though time was pressed ... I think we almost always looked forward to making that time. It was something that we anticipated and we knew that we were going to do something interesting and fun. ... The kinds of activities that

we did ... were opportunities for us to elicit - or for you to elicit from us - things that we really cared about. We knew there was going to be ... a sense of discovery in the time that we spent together.

P: OK. You mentioned Highland Circle and the walk with Tom. Can you describe one moment or one thing that really struck you? Was it a particular plant that we saw with Tom ... or maybe a house on Highland Circle where you thought, "Wow, this is really cool," or ... ?

M: Well, there is data like that. What it feels like to me is that both of them were adventures. "OK, we're going to go have an adventure." So that is intrinsically appealing to me. I remember really thinking about entrances and bridges on the Highland Circle walk ... There was something about the walk around Highland Circle - maybe this is just my own personal bias, how I process or whatever - being invited by those folks to come and walk around their house. We were sort of standing at the driveway, and they asked us to come in, and we walked around, and they told us the story of the house, we got to see the back and hear a little bit of its history, and I guess we

ended up learning about the architect, and the whole narrative kind of unfolded in a way that was resonant. Maybe that's my personal learning style, but I remember really looking at different kinds of entrances ... and I remember really thinking how bridges were cool, and the spaces made by the different bridges were different. Some of them really didn't work with the flow of the house, other ones made a really cool, special space ... So there's some data from that one.

With Tom I remember just feeling really privileged to have time in the forest with someone who was skilled and knowledgeable, and I was grateful that you had made that opportunity happen. Even though I didn't necessarily understand what the direct connection was between Tom's presence and our work, I knew enough to know that that was the direction I wanted to head, and that it was worth learning from it. Even if it wasn't going to be like pay-off, you know. Because of the ideals that I think that we share. We're trying for this thing that's way out there, and we don't quite know how to get there, but trying something like the ecology walk seemed like a really legitimate step that way. The couple of things that really stuck in my head from Tom's time with us were: pasture behavior at altitudes, like why some pastures will

grow back and others won't; and he hit upon that sense that the house was on a liminal or ecotonal zone between that flat level area, then dropping down into the hollow. Maybe we even overstated its importance but it felt like there was a metaphor there to be worked with, that really would matter to the way the house was situated, and to our landscape ideas ...

P: ... Any kind of bad memories?

M: Um, the only thing that I really remember about that was, I felt like there was a week or two when I was getting on your nerves, talking about ... mixing too much of the nature walk concept with the design concept, like asking you, "What kind of thrushes are those?" [20 JUN] It seemed like that was an important thing [to mix nature and design], then I sensed frustration from you that that was not the case. Then either that resolved or faded away and I don't know whatever came of it.

P: Yeah. Yeah, I remember that moment ...

P: ... You've described two activities that were important ... Do you want to say anything else?

M: I can tell you a little bit on that ... I have this sense that some of our activities were generative of value concepts (?) like the introductory talk we had. It was really about what are the values at play here, what are the undergirding principles that we're really shooting for here in the design ... I think Tom's trip was sort of like that, our introductory talks, a lot of our side conversations were probably about that. So that feels like one class of activity that we did.

And then I will say that it felt really good just to model, the different techniques that were brought in that were kind of tactile and kind of embodied. I thought the sand cast modeling was awesome. [6 JUN] That was just so useful to see the elevation in 3-D. I was impressed that you took the trouble to make that work; I know that was a pain. I'm good with topo maps and I'm good with 3-D spatial relations ... but it's hard to manage stuff at that kind of fine level of understanding: where the back of the house is going to be, and the front of the house, and ... That was really cool. There always seemed to be a variety of toys to play with, the sketch board and the models

and stuff like that. So I thought that was really instructive, and fun.

P: OK. It's nice when things are both instructive AND fun!
[laugh]

M: ... Some random things came back to me as we talked [earlier in the interview]... I think something that would be of use for you to understand and monitor, even though I don't have any clear answer to it, is the sense at the end, of what we [the Bewells] called "design fatigue," where we just got tired of thinking about it. That doesn't necessarily mean that you should have given us the final thing earlier. I mean, I think there is probably a really constructive way in which the designer says, "No guys. Yeah, you think it's over but it's not. We really need to keep going ...". In fact my guess would be that it's probably always that way, that you have to go one time more than your client wants. Or maybe more, I don't know. My guess is that that is an area you probably have to deal with a lot in your work. I thought that was interesting. We weren't upset that we didn't finish by [such and such a date]... I just

remember it being kind of like, "Ughhh, we just want an answer! We're done with the deliberating!"

P: Uh huh. OK. It's incredibly perceptive of you to bring that up ... And as I remember it we both felt that making decisions at some point was almost a matter of expedience. I mean, it's almost fun to just keep on going with the design work, and so it's almost a matter of expedience ... to just say, "OK, we're going to go with this, " or ...

M: Right. Yeah, because at some point you just have to. Especially for people like us. Or I don't know, I'm really tolerant of just letting things, um ... of discovery. I could probably do that for a long time. I tend not to ... I'm a deliberate person. And I think there was some difference between Sally and me in that process too ... I really like just unspooling the process for a long time because I think it's fun. So that was one thing.

And I think another kind of random area of interest for you may be that sense that there was some tension. I think we dealt with it pretty well. Um, I know that we were often concerned, not so much that it was our fault, but about whether

your interests and needs were really being met. Or did we pull you into this project that ended up ... You were supposed to be in landscape architecture and then you got stuck with this house design, and ... you probably felt this commitment to us, and we thought, "Gosh, I hope this is going to pay off for Pete."

P: Well I appreciate your concern. Um, uh, it was a challenging project for me.

P: Do you think that the design ... has the potential to strengthen relationships between your family and the land? It's kind of a loaded question and a hard question. If you have any comments, great. If not ...

M: Maybe it is kind of a loaded question because if we said "Nah, probably not," we'd probably be pretty bummed at this point. Because if that were not so it would really be ... We have the assumption that spaces call our attention to some things, and that the environment has a lot to do with how and what we perceive. When I ask you to talk about this design

and I envision people being in this house, things come out to me. Like in the winter a curtain will have to be drawn around the stairwell, and at night time you'll want to close these doors, and the flow of water [through the indoor "spring"] will decrease relative to the rainfall pattern ... and there will be *two* main exterior spaces to use, the west one and the courtyard in the center there. All those things are saying to me that the house requires seasonal responses, diurnal responses - is that the right word, diurnal? - so in a way there are subtle reminders that as a human we have responsibility to remember these things. And a good house has just the right balance of that. See, it's not troublesome. You don't get angry with the house because it is reminding you of so much that you have to do. But it requires you to be conscious of the landscape, so it's drawing you into that kind of awareness. And I think this house has some strong ... ways of doing that. And speaking about the question, if we've thought out the utility stuff well - the wood storage and the food storage and the way the garden interacts - all those things are good. So in practice, then, we won't get tired of gardening when we're 45 because it's such a hassle, and we won't tire of cutting wood and managing the forest that way because it turns out to be such a hassle to

continue to be subject to that kind of lifestyle, which is pretty demanding.

But it looks well thought out to me. You can't really know until you're out there and spend a winter that you discover, but I think it has a lot of potential.

14 DEC 01. CLOSING INTERVIEW and PRESENTATION with Sally, my apartment, late morning through afternoon (with a break mid-way for Sally to attend to work by laptop and modem).

P: All right. For starters here is one of those big broadside questions ... We did a lot of different things over the course of the summer ... Are there two or three things that happened that really made an impression on you, good or bad? [I had not yet recited a history of the summer's activities.]

S: Well, the first thing that comes to mind is the modeling ... the sand box modeling? [6 JUN] Is that the right term? With the plaster mold and the dirt? I just thought that was so cool. There were two things I think about in terms of breaking through into new mental territory, and that was one. And staking the flags outside [trial layouts, 24 MAY and 10 JUN] was the other. I think in both cases it is because it felt 3-D. It's very hard for me to think about how space is, looking at paper. It's very hard for me to get beyond, "Well, here's the room and the couch will sit here and the sink will be here," and that kind of detail. It's hard for me to get outside of that and

think of the big picture. So those exercises really helped me get outside the house and think about it in terms of how it lay on the land and what was happening around it. And the whole size issue was really blown open by staking it out, by that particular exercise. I really liked a lot of the things that we did outside. I really enjoyed sitting in our favorite spots and then talking about what made them our favorite spots, *outside* the house, reflecting back onto the house [10 JUN] ... I think those are the things that I thought were really fun and that helped me expand the possibilities a lot....

S: [several minutes of dialogue later] I really enjoyed the [sand cast] modeling, although of all the things that we did, *building* the [cardboard] models was not ... as ... maybe "easy" is the right term. [14 APR] I didn't find it to flow as easily in my thinking, maybe just because of where my mind was that day [trying to make a decision about a new job opportunity], but I loved that topographic, sandbox thing. Is that the right term?

P: I've been calling it "sand cast modeling" ... but actually, I think earlier I was calling it sandbox modeling ...but I know what you're talking about.

S: Yeah, well I loved that. I just thought that was so cool. There was just something about it that, well, I guess my own interests lie in that direction. I enjoy seeing things in 3-D form. It makes sense to me somehow in a way that ... I'm not very adept at creating a good mental image from drawings, or creating drawings. I'm not very adept at creating drawings.

P: More of a sculptor, then?

S: I don't know! I've never really tried sculpture but maybe I should! Maybe I would really love it!

S: Yeah, so probably those two things. And I enjoyed all of our long involved discussions about, "Well, if we did this it would mean this," and "What about this?" and the narrative way that we worked through things. I enjoyed that and I thought it was productive. I think we got places where we could not have gotten without having those long discussions, and there were points in those discussions where things would

kind of come clear, and I'd think "Oh! ... Okay ... That makes sense now."

P: All right, I'm just going to ask you, can you think of an example?

S: [long pause] Well, I remember getting really excited ... We had talked about having rainwater come into the house, and when you brought in the idea of having water flowing down in the center of that room [27 JUN, for e.g.], or through the connector somehow, or maybe having a stream flowing through the house, the discussion that we had about that made it seem possible to actually do it. In my mind before that, I always thought, "Well, what a neat idea but ... how would you really make that work?" I couldn't make the translation between the picture in my mind, the idea that I'd like to have water in the house, to something that was actually a practical thing that you could build and would actually work. That was really neat to see. "Oh, you know, you could build that! This isn't a dream, this isn't my little fantasy hobbit-land, having water running through the house. This is like a real thing that you could build." That is something that this process made me

believe, that we could actually do this house... So I think that is a good example. It's very fun to think about lots of different things, but when it comes down to it, translating that into something that can actually be built is hard to do without that skill.

P: So just talking about how it could happen encouraged you to think that it might actually happen.

S: But ... also the specific practical issue, somebody who knows how to *do* it saying, "This is how you would do it" in a real way. It was neat to see the possibilities, things that in my mind seemed very unusual or difficult to do, get to the point where you think, "Well, this is an option." You make choices and you check things off and if that's what you want that's what you do.

P: Well, if they can build things like the Golden Gate Bridge or the Sydney Opera House, you know things are possible. But all those things require an incredible amount of engineering and practical know-how. So I think there is that wonderful ... way in which dreams challenge our knowledge and engineering

skills. I think both are incredibly important: the dreams and also the know-how. So, OK. Anything else?

S: I thought it was really neat and wonderful - when it worked out well - when we could involve Robin in pieces of it. Sometimes that was really hard ... because she would get frustrated and I would get frustrated and there were moments when we felt, "This isn't working." But there were also other moments where it was really a beautiful process to watch her engaging with this dream, the dream of this new house. And playing with the sand cast model really made sense to her.

P: Yeah, that's right! She really helped a lot with doing that. That was fun.

S: And she connected to it in a way that made it real for her, I think, because she very much knows about "The House" that we want to build. And that's neat. It's not just something we're plopping into her life. She has been a part of it and she's able to have that sense of being a part of it. That was important to me. I really value that you were creative in how you dealt with that, and that it was part of how we did the process ...

S: [several minutes of dialogue later] So I think that [including Robin] was a neat thing that we did. No, we didn't do it perfectly but we did it.

P: We tried.

S: I think effectively it happened for her, and it didn't derail us *too much* [laughter]. So that is success, you know?

P: [After Sally recounts her first impressions, I recite a brief history of the summer's activities.] Considering the range of activities that we did, which ones were the most stimulating or provocative for you.

S: Yeah, the ones that I mentioned, PLUS, I had forgotten about the walking tour [of Highland Circle, 14 MAY] but now that you mention it, the walking tour was really good because it gave me ideas about how to look at existing houses, in a different way than I had done before. I had been looking at houses anyway, but I wasn't looking at ... enough things,

enough aspects of the houses. I was just taking them in as, "Oh, well, I like that," or "Well, I like it, and that kind of looks like the 'Wing' idea, well, OK, interesting." But then after we walked and talked, I found myself really paying attention to ... entranceways(?) because we talked a lot that day about entranceways, and how to screen them or not, and how you set them apart from the house so that you know that you are going there. And I started noticing that when people visit our house, they always come to the back door, and I'm always embarrassed because then they walk through the trash on the back porch to get to our house. Whereas the front porch now is kind of nice and I want people to go *that way* [laughter]. It's all painted and everything. It looks really good! So just that concept of looking at different houses to see more detail, a more design-oriented way of looking at houses ... to feed into what we are talking about. I thought that was really, really good, like seeing things in 3-D. Again, that really helps me.

P: Full-scale, functioning, real world stuff.

S: Yeah. WITH the discussion. I mean, me just walking around by myself would not have done that. But talking it

through with you and with Matt, and getting those ideas and seeing things and then reflecting on them: “Well, how does this fit with this?” and “Well I like that bridge, but this one doesn’t go anywhere, so why would you do that?” That kind of thing. That was really good.

P: Now you said there was one activity [building cardboard models, 14 APR] that you didn’t get much out of, or you felt kind of awkward about it.

S: Yeah, well, also the drawing, drawing from the photos [14 APR]... That didn’t really work for me.

P: OK.

S: But that’s a “me” thing. I mean, that’s not ... you know what I mean?

P: But we all start with what works for us. So that’s important to know.

S: That was hard for me, and it didn’t really get me too far ... because it was connected somewhat to what we were doing that day with the modeling. I think the modeling was also ... I didn’t feel I had a very good idea to model ... So I didn’t really ... but I think modeling itself would be cool to do ... if you felt like you had a good idea.

P: I see what you’re saying. You felt like the idea you had in your head hadn’t taken enough shape in any particular form to just jump right into a model.

S: Right. Now, the sketching might have helped if that had been a good process for me, I think, but it didn’t really ... I didn’t get there ... I think that it was just preliminary. My thinking was pretty preliminary. So I think the modeling was useful in that, when I built it, I thought, ”Nyah.” [laughter] And maybe on paper I didn’t know that. I didn’t know, “Well, that’s not really good enough yet.”

P: OK. OK.

S: So that's useful. But it didn't feel nice, like "Oh, I made this beautiful thing and isn't it cool," it felt like "Ugh, that's not very cool, and I need to think about that more before I build something." But I think that's the process.

P: Yeah. Well, that's what I'm wondering about now, because that was not in any way intended to be any kind of final model of your ideas.

S: No, it was real early.

P: Right! It was one of the first things we did, it really was. And the idea was to start trying to think in terms of 3-D. So, I guess there are a couple of different ways in which a person might be disappointed or frustrated. One is that your ideas just weren't formulated enough to put them into a 3-D model. Or, you had good ideas but translating them into 3-D was just too awkward and cumbersome. Or, you felt like you wanted to have some sort of 'finished' product right off the bat, when this was just a first stab, thinking in terms of 3-D. Does any one of those in particular apply to your case, do you think? Or do all of them in general ...

S: Well, I think that for me, I had an idea in my head and I was able to build it, but it told me, "You need to think this through more." So I think the process of building it was fine but my preliminary thinking wasn't detailed enough. But I didn't know that until I built the model, so I didn't end up with something I liked. But that was the point. I didn't have the ideas well enough formulated to end up with something that was good, but I didn't really know how to do that yet. But what *was* helpful, too, was seeing *yours* and *Matt's*, because I could realize the scale difference. Like, in my mind I remember thinking, when I saw yours, "It's too small."

P: Yes! I remember that!

S: And actually we came back to something that was small---er, over time. So we went big, and then we came back some. But that was a good process because ... I made this box and that was good enough and it was big enough. But *your* design was *cool!* But I thought it was too small. So we dealt with that. So I think it all ... I think the *group* process of modeling was good. If I had been doing that sitting at home it would

have been totally useless, because I would have ended up with something I didn't like and I wouldn't have had anywhere to go. But the fact that we were doing it *together* allowed me to see ... and that helps me anyway, just discussing, and playing off of seeing things.

P: Any other constructive criticisms or warnings you might give me, or things that didn't work out too well?

S: I thought it was an interesting tension that we had because you were working with both Matt and me together. Sometimes ... our relationship ... impacted what we did, in a way. Which you would expect ... but I guess, I don't know, I don't have any conclusions about this but I guess I just noticed, say, when we came to your house that day [for the walking tour of Highland Circle], he and I were very upset with each other. So it was very hard for us to kind of get outside ourselves enough to focus and do what we needed to do. We were able to do it, but ... I guess it's just something you'll probably always have to deal with ... when you're working with two people ... I just noticed it, that it was hard. At times I felt bad about that, that

we weren't able to value that time in the way that I would have liked, because of other things happening, not being able to kind of set those things aside and be fully focused on what we were trying to accomplish with you because it was very valuable. So, there was a tension there, I guess is what I'm expressing.

P: Yeah, I mean, I really think that's "life." It's not even ... this particular process, it's not design or anything, it's just life. I actually feel kind of glad that, um, if you were having a hard day when you came here [to Blacksburg], that was probably a good day to be outside in the fresh air! [laughter]

S: It was, it was! And it actually helped. I mean, by the end of it, we feel better because we've done something good together, and ...

P: ... We've gotten some fresh air and sunshine!

S: Yeah. I can't think of anything else that I would say in terms of cautionary words or things that didn't go well. I was pleased with how things went. I guess, you know, I think we were all surprised at how long it took.

P: Talk about that.

S: Um, I guess you just don't know until you get into something how complicated it really is! I mean, it really was complicated! I don't think we overdid it. I mean, in a way, what I think we did was, we drove just past the point where I was like, "OK, we can stop now." Just past that. And I think that's exactly right. Because you have to get past that point, and realize, "OK, we did it," you know, and then come back, start here, and finish. But if we *hadn't* gone past that point - and we only went slightly past it - then we wouldn't have ever known, "Are we really done?" ... If we had decided, if we had arbitrarily said, "OK, 'Wings' is it, because we're tired of this, so we're done," then we wouldn't have built it, because by the time we got back to that version, whenever it was - four months, six months ago - we would have found all these things that we hadn't addressed, and we would have said, "Oh well, we don't have a process to deal with that anymore, so forget it. We'll just build a box" ... But I was a little surprised that it took us so long, and I think it had to. I don't feel like we wasted time in that process. I feel like what we did was

valuable and that at the end we had something that we could actually buy into and love. If we had stopped in the middle, the work would have been wasted, or it might have been wasted, because we wouldn't have gotten to the point where we felt like it was really what we wanted, and where we wanted to be.

P: I think that's a very, very important message for me out of this whole project, and ... I'm listening to what you are saying very carefully, because I think it is an important issue.

S: [speaking about June 10] That process was fruitful for me. Like, I can just remember thinking that ideas were flowing, I can remember watching, and being outside looking at it for real with the spaces, with the flags, and all that. That really worked well for me, it really felt good. It felt like, "Oh, I think I have something to offer here. It's flowing."

P: ... did we do anything in the project that stimulated your thinking or your feelings about this connection between human

and nature, or house and landscape? Let me just pose that question to you ... because that's a loaded question.

S: Yeah, there's a lot in there. Well, first of all, I think that I am experiencing in my life a real desire to have more of my life focused, in a real practical way, in connection with the land and the animals and the water and the birds. I find in my own life that a lot of my responsibility lies within the house. So I end up spending a lot of time in the house, a LOT of time, too much time. And I have to break my routine to get out. So part of what I desire is that my house will be more connected to those important things so that when I have to spend a lot of time in my house, I'm not so disconnected from outside, I'm not just sitting in my little air-conditioned box looking out the window at the birds. That there is a connection there. And that desire grows in me over time, or it has in the last couple of years. I'm more and more willing to experience discomfort to get that, first of all ... which has been a major hurdle for me. And also just my desire or just my realization, how it changes the way I feel and the way I work, if I have that connection to the natural world, it's a much better thing for me and for the family. So ... I think that that's a real high priority in terms of

my life. Um, that being said, it's hard to do when you're inside all the time. So I really liked, as we went through this process, the discussions about how to do that [connect the indoors with the outdoors]. Like I really thought it was wonderful that, in the designs we talked about, "Well, we want to have open air flow through the house, and light flow through the house. We want to be able to stand in one place and see outside and feel the breeze blow." And that's important to me. Early on, the concept of the breezeway between the two buildings, perhaps being open, you know, openable during the warmer months...

[tape needs to be flipped]

S: [continues] So there were various things that we did during the design process to try to bring that in: one being the idea of having light and air flow through sort of direct paths through the house; a lot of attention that we gave to integrating access to porches, getting in and out, that way; the idea of bringing water into the house; the concept of the greenhouse being attached. All those different things that we talked about. We talked about a lot of them. We talked about how to bring corridors of natural plants and light and air into the house in a

lot of different ways, and I just thought that was really important. It is easy for me, and it could have been easy for me, to not focus on those things because I *also* have a high, high degree of desire to have a bigger house. You know it would have been easy for me to say, “Build a box to the west of the house that is 20 by 30, so that I have a place for a gathering where people won’t be tripping over each other’s toes. But I really, really value what we did in terms of thinking through how to make that house more integrated with the outside. And ... I just ... half of me sometimes ... wants to just BE outside so much more. So it was very valuable to try to break out of that mindset of, if you’re in the house, you’re inside, and that’s it! And then if you want to be outside you have to go outside. I feel like we did that well. That was a lot of our discussion and we kept that in the mix a lot. And I think we did neat things to try to make that happen. I think that the attention we gave to it in the design process will end up helping us accomplish that in our life in that house. I think that’s valuable.

P: I’m not sure I understand what you just said.

S: I think that you could build the best, well-integrated structure you wanted to, but if you didn’t think about it intentionally ... If someone plopped down a building that was really well integrated with the landscape but you didn’t pay attention to that, you weren’t aware of it ... Like, if I just moved in but I wasn’t aware that it was situated in such a way that if I look in one direction I’m looking north, if I look up I will see the North Star because that’s the way it was built ... you know, if that intention isn’t there then I think you lose ground. You lose the possibilities that are existing. So I feel like we gave a lot of intention to that, and that we talked about it a lot. Because I feel like, as we build the house and live in it, that intention is built into what we want that house to be. And so we will live that out. Even if it’s not perfectly built to do every single thing that we might want it to do, that intention is really important.

P: Uh huh. I think I see what you are saying ... um ... that the process did sort of prime you to be aware of those opportunities in the house ... to notice views or notice ways to get the air circulating through or that sort of thing(?) ...

S: Yeah, and really priming us for the *expectation* ... that that would be the way we live in that house. The process built on our own *desire* to have those opportunities, but now in my mind the house *is* going to be that way. You could take a well-designed house that had a lot of those features and flows, and kill that by, say, putting in a set of shelves that blocks the flow of air, because you're not thinking about what the house's potential is in terms of air flow.

P: I think I really understand what you're saying...

P: [several minutes of dialogue later] OK. Is there anything else you want to say about that?

S: No. Well, here is a really concrete example of what I was trying to say, I think. Take the windows in our house. Some of them are the kind that you put up - double-hung sash windows - and some are the kind that swing out [gesture indicates casement windows] ... or swing out this way [gesture indicates awning windows]. And you wouldn't think ... two years ago I wouldn't have thought it would be a very important

choice to choose between those two kinds of windows. But now having lived in my house and having had the perspective of wanting to integrate the wind and the sun and the rain into my house - or not the rain *into* my house, but being able to remain open to the wind during the rain - I don't like double-hung windows any more! Because you have to close them when it rains or the rain comes in! But if you have the kind that swing you can leave them open and, depending upon which way the wind is blowing, you can have lots of wonderful air and no rain. And that's a really concrete ... choice. If you don't know that, you can live the rest of your life with double-hung windows and have to close the windows every time it rains, or ruin the sashes! Or if you make a good choice about that in the beginning, that that's a gift through your whole life. You can have that wonderful smell of the rain coming in when it's raining. But I would have never thought about that. I mean, when I was living in Arlington before we moved to the farm, that would have never occurred to me. Never in a million years. So just the process of being on the farm and thinking about and designing a home - those two things sort of come together and you get these moments of realization where you think, "Hey, this is the point of what we're doing. It's *not*

haphazard.” ... It seems like a small thing but it’s really not a small thing over fifty years! That’s a really nice gift to be able to have. And if you make the right choice then you get that gift; if you don’t, you don’t.

P: That’s very true. You are saying a lot of things that our professors are trying to get us to learn!

S: Oh yeah?

V. Guide to Closing Interviews.

The following selected points may help the reader make the connection between these statements by the clients and the notion of conversation advanced in this thesis.

Matt recalled being most impressed by the walking tour of architecture and the ecology walk, and also spoke highly of sand cast modeling. Sally recalled being most impressed by sand cast modeling and trial layouts and also spoke highly of the walking tour of architecture. Robin showed a great deal of interest in models [see Annotated Timeline for 06 JUN and 16 AUG]. All these activities involved a combination of social interaction through verbal dialogue (talking with the homeowners, the walk WITH the discussion) AND direct experience with material forms: buildings, the land, models, things in ‘3-D.’ Even the difficult exercise of building cardboard study models was partly redeemed by doing it AS A GROUP. No one recalled strong impressions of drawings even though a huge proportion of man-hours on the project was devoted to drawing. Conversation with clients about design sinks in when dialogue AND direct experience are brought into

alternation with each other, as described by the notion ‘embodied conversation.’

Both Matt and Sally bring up, unsolicited, the issues of ‘tension’ and ‘how long it took.’ It is significant that they both talk about these issues candidly, highlighting their importance in collaborative design. These issues are also part of the notion of ‘conversational’ design, to accommodate differences in a common activity, and to give the activity the time it needs. Sally spoke of how, by the end of the walking tour of Highland Circle, she and Matt felt better because they had done something constructive together, something centered less on trading words with each other than on sharing an experience with the world. It took time to go on tours together, build models together, do layouts, and discuss design issues regularly, but all three of us felt it was necessary and constructive, given our objective of attempting collaborative ecological design.

Finally, Matt and Sally entered into this project with an unusually high interest in the land and in integrating the house with the land. Although my question about whether the design process and/or the design product strengthened the connection between the family and their habitat was a ‘leading question,’

the Bewells' responses suggested that the design process did modestly heighten their awareness of their habitat, and that the design, if implemented, might continue to do so. Matt said the design looked like it would "draw them into that kind of awareness: of the land, but he knew that a paper design wasn't the last word. "You can't really know until you're out there and spend a winter ..."

Sally suggested that the design process solidified her commitment to build a house that was better integrated with the outdoors, and that it heightened her awareness that design *does* make a difference - even the design of windows. She also expressed poignantly the frustration some of us feel, the "growing desire" to be more connected to the land even if it means some discomfort, because "it's a much better thing for me and the family," and yet the sense of disconnection due to responsibilities in the house.

VI. Professional context.

Although design is not often talked about as nested, conversational interaction between differences - different modes of being, different human beings, wholly different kinds of beings - there are various practitioners and projects that take a similar approach to design work.

For example, 'designbuild' involves the alternation and close integration of different modes of work, as do other combinations of direct experience and symbolic renderings.

'Participatory design' is a way of bringing different people with various, different interests and concerns into the design process.

'Ecological' and 'evolutionary design' and 'ecological restoration' work allow wholly different beings - different species of plants and animals, and different elements such as sun, wind, rain, and soil - to inform and respond to human activity in reciprocal fashion.

'Cultures of habitat' are perhaps the best examples of how different scales of work - designbuild, participatory

design, and ecological design and restoration - may be linked as nested webs of interactions and transactions.

In order to place the notion of 'conversational design' in the context of professional design work, following are examples of design work in which conversational interaction in some form, at some scale, to some degree, was utilized. These examples are compared briefly with the field work undertaken in this project. As in the field work, conversational interaction is most obvious at the scale of interaction between people, i.e. in participatory design practice. Certainly the literature about participatory design is more abundant than literature about the conversational aspects of designbuild or ecological design. Therefore we will begin with examples of participatory design (the first section). These will be followed by examples of conversational interaction at the 'smaller' scale, the alternation of various modes or capacities of an individual, such as designbuild (the second section), and then by examples at the 'larger' scale, the alternating interaction between people and wholly different beings, animate and inanimate, as in ecological design and restoration (the third section). It should become clear that these different scales of interaction are not

unrelated; in fact they may be deliberately linked as nested scales or webs of interaction, giving rise to a ‘culture of habitat’ (the fourth section).

This summary is not an exhaustive treatment of participatory design, designbuild, or ecological design. Rather, these examples are intended to apprise the reader of professional work with aspects similar to this thesis project.

Different human beings in participatory design.

Different examples of participatory design may be understood in terms of the general objectives for this kind of work (in which are implicated various motivations, problems, and contexts), different approaches and attitudes taken in pursuing these objectives, the various techniques applied, and the resulting products. This discussion focuses on the objectives and approaches; an annotated list of techniques may be found in the Appendices.

It is important to note that there are many subtleties about the idea of ‘conversational design’ that could be compared with other flavors of participatory design; in other words, not all participatory design necessarily features the nuances of good conversation. But to examine these subtleties

is beyond the scope of this work. For one, it would require much more detailed information about and observation of the examples mentioned here to make the finer distinctions between participation and ‘conversation.’

The variety of objectives for participatory or collaborative may be grouped roughly into four categories: the de-industrialization and de-professionalization of design; the enhancement of professional design and other pursuits in life; the building of civic life and social justice; and the restoration and sustainment of environmental health.

One of the simplest objectives for participatory design, although perhaps the most radical and controversial, is to restore the process of design of habitat to its inhabitants, so that design becomes a sort of dispersed, organic, developmental, ecological process rather than the prerogative of relatively few professionals operating under industrial imperatives. In other words, participatory design is intended for people, as individuals and as collectives, to become responsible and able to participate actively in the design and construction of their own habitat. Christopher Alexander (1977, 1979) is perhaps a leading spokesperson for this view of design, although Stewart

Brand 1994) and Forrest Wilson (1979) have also made noteworthy contributions to the argument. The analogy Alexander draws between design and language is brilliant and rightfully influential. However, Alexander describes a ‘pattern language’ with emphasis on ‘patterns’ as archetypes innate in all humans, like a genetic code, and design order as natural law.

In comparison, this thesis project emphasized the variable *performance* of design language as an act of communication or interaction, in which participation is so vital and meaning so contingent on usage. This difference in emphasis is not unlike the discussion in linguistics about the ‘biological’ aspects of language versus the ‘cultural’ aspects.

For others, restoring the process of designing habitat to its inhabitants was a way for people to resist bureaucratic control of their lives, to experiment with alternative forms of social interaction and organization, and to express themselves more freely. Lawrence Halprin and Jim Burns undertook to facilitate this process through ‘collective creativity.’ “One of the major problems in our world today is an increasing sense of alienation ... People feel that somehow, somewhere, decisions

are being made by groups of insulated, faceless people with whom they have no contact and with whom they cannot talk and who will not listen anyway [sic] ... The only way we can really influence decisions over our own lives is by participating ourselves in the process of decision-making; we must do this as a collective of individuals working together toward achieving our objectives.” (Halprin 1974 p.10) Collective creativity was intended not only for landscape design and urban planning but also for a wide array of personal and community pursuits, generally described as “personal growth and participation in the life/art experience.” Halprin and Burns’ seminal work in collective creativity took place in a time of wide-ranging social experimentation, the late 1960’s and early 1970’s.

Their ‘RSVP Cycles’ and ‘Take Part Process’ workshops are somewhere between being a general philosophical approach and being a set of techniques for participatory design. “We believe that collective creativity is a vital tool. Collective creativity requires only one basic commitment. That commitment is to valuing other people’s points of view, listening to them intensely [sic] to really hear what they have to say, and to willingness to work with them ...

It is a commitment to the idea of process - or more rather than less democracy.” (p.12)

Active listening is key to Halprin’s work, but more specifically, Halprin uses ‘RSVP Cycles’ to guide workshop participants through various modes of experience toward collective creativity. The modes include: identifying ‘Resources,’ including personal and external resources and including the objectives for the workshop; designing ‘Scores’ or plans for collective activity; ‘Performances’ of the activity; and ‘Valuation’ or evaluation, summarization, making sense of the shared experience, which then becomes a Resource itself. The ‘Score’ is perhaps the most distinctive feature of Halprin’s approach to participatory design, which he likens to a musical score, a script for a play, a storyboard, or dance choreography, in that it organizes but does not completely control performances. He uses scores to engage different participants in common activities ranging from self-guided walking tours to modern dance, and from these common experiences he helps participants “establish a common language that permits communication” about, for instance, design. “It does not guarantee it, but it does establish a basis for communication ... Without common and shared

experiences, disagreements and misunderstandings can arise simply because people are talking about different things.” (p.43) But *with* common and shared experiences, and with opportunities to talk about them with each other, participants have a way to discover not only differences but also common grounds for working toward their common objectives, for example, conceptual plans for downtown redevelopment.

Although the thesis project had only modest, implicit social goals, and focused more narrowly on activities specifically related to the design of a house and landscape, and did not employ elaborate or unusually provocative, experimental scores, the approach in the thesis was largely sympathetic to Halprin’s. It prioritized a process intended to generate a ‘common language’ by combining shared physical/material experiences with the exchange of dialogue and other renderings in interactive group work. ‘Conversation’ was regarded not as a natural law but as a helpful, useful practice and opportunity even though the results could not be predicted or guaranteed. In addition, like Halprin’s work this project suggested that, as useful as participatory workshops and collective creativity were in generating a common language, design ideas, and a design program, still a great deal of

additional, complementary work was better carried out individually. It is noteworthy how Halprin stressed the importance of keeping the ‘objectives’ of participatory design front and center, even though they may change and evolve over the course of the work. The thesis project might have benefited from more regular and explicit attention to ‘objectives’ both broad and specific.

For others, collective creativity was less an experiment in social interaction to restore ‘power to the people’ and more a simple expression of genuine sociability in professional work - and also perhaps of skepticism toward unaided genius. Charles W. Moore, for example, “worked best when surrounded by people [including at times Lawrence Halprin and Jim Burns]. His preference for collaboration extended to virtually all of his activities: he taught with others, he wrote books with others, he traveled with others, and most important, he designed buildings with others. He did not regard architecture as a solitary act; rather, he relied on the energy and participation of everyone involved in the building process ... Moore’s sense of collaboration ... was so strong that it replaced for him a need to develop a personal, individualistic body of theory. Instead,

Moore preferred looser, more easily transferable ‘principles and enthusiasms’ from which architects could borrow, weave variations on a theme, and absorb.” (Keim 1996 p.154) This marks a significant difference in approach from, say, Alexander’s claims about innate design archetypes and natural laws of order. Moore paid keen attention to personal and cultural memories and to design insights embedded in the architecture that history bequeaths upon us, and he did not refrain from proposing his own guidelines and checklists for, say, things to consider about the design of a house. (Moore, Allen, and Lyndon 1974) But he did deliberately refrain from making overarching claims. In *The Poetics of Gardens* he wrote, “It would have been fun perhaps to build a grand synoptic system - to distill a set of rules from [the variety of gardens described in the book], collapsing all the overlapping and conflicting principles that formed most of them, but it wouldn’t have been fair: we have discovered too many ways to make a satisfying garden, too many ways to design a building ... to presume to select just one way to proceed.” (Moore, Mitchell, and Turnbull 1988, p.217)

This thesis project adopted an attitude strongly concordant with Moore’s even though it lacked the

professional confidence and ease: useful guidance and meaning can be found in ‘conversation’ with a diversity of people and places themselves, i.e. ‘examples;’ and as helpful and useful and efficient and pleasurable and beguiling as words may be, along with their whole attendant raft of ideas, concepts, rules, and laws, i.e. ‘renderings,’ using these human inventions requires utmost circumspection.

Regarding participatory design, Moore observed, “One of the really critical things [about participatory design] is that if we, the architects, enter with hidden agendas, we’ve had it. That is, if we want a set of things and we let that show even a little bit, kiss them good-bye. If, however, we drift in with an open mind and an avuncular smile and the desire to have people have what they care about, then the chances for getting it are very good. What follows from that surely is that a building which has the energies of all the people interested in it is more likely to succeed than the masterpiece of a skilled designer operating alone.” (Moore in Keim 1996 p.159) He concluded “We have repeated this process now, in part and with changes, often enough so that I am convinced that it works; that people in a creative mode, whatever their differences, are much more positive and cooperative and ready

to do something than the same people in the kind of critical mode that a committee structure implies.”

Moore’s distinction between the ‘creative mode’ and the ‘critical mode’ is an interesting comment reflective of the thesis project in two ways. It suggests that the participatory design process is most directly useful in generating ideas and developing a general design program - the ‘creative’ aspects of the work - while making judgments and decisions - the ‘critical’ mode - may be a more individual and opaque process for the interims; this appeared to be the case in the field project. However, it also suggests that engaging people in the creative mode is a good way to build bridges between differences, bridges that are important for communication and decision-making and other more critical negotiations at other times.

For Moore, then, whatever social, political, economic, or environmental spin-offs resulted, collaboration and participation made for better design, better professional work, and a more sociable, enjoyable life.

Other practitioners, Bill Lam for example, also use a kind of ‘collective creativity’ because by educating clients

about design and tapping them for ideas about design problems and solutions, it enhances their own professional work.

“Architects have a responsibility to communicate clearly ...”
(Lam in Pressman 1995 p.77)

Participatory design is also a way of working toward social justice, building a civic life, and enhancing the sense of community. Mark Francis’ work with Village Homes in Davis CA not only produced a playground for children but it also nourished the whole community through joint activity. Randy Hester uses design work to promote the establishment of ‘commons’ or neighborhood open spaces for various and changing needs. He worked with the residents of Manteo NC to sustain the community by reviving public space in a way that was sensitive to the life and culture of the residents but also economically viable by attracting tourist dollars. His ‘user-needs’ techniques are “not to prove or disprove any theory, nor to discover truths that can be generally applied. Rather, [they] are intended to provide information that can be directly applied to a particular neighborhood space.” (Hester p.96)

Although it is unclear to what extent clients participate in the design process at Samuel Mockbee’s Rural Studio, Mockbee is emphatic about using architecture to redress social injustices in impoverished areas of the South. Mockbee says “An architectural studio needs to be subversive. What I mean by that is that it can’t just address the current social, economic, and political structures. We have to challenge the status quo in order to allow for a better future.” (*Architecture* 1997 v.86 n.1 p.49-51) He demonstrates his stated objectives by mentoring students who are designing and building economically modest but architecturally innovative houses for the rural poor. His approach is to prod his students to serve their community in more ways than simply fulfilling requests for design work. “Architects enjoy a wonderful, broad education in the sense that they learn how to deal with complex projects. What we’re taught can be applied to so many problems in the community, but for too long we’ve been sort of the court jesters for the rich. Architects need to play a direct role in the policy-making in a community; once a decision has been made and handed to the architect, it’s too late. After all, the role of any artist is to help people see things as they truly are.” (*Architecture* 2000 v.89 n.8 p.27)

Bill Hubbard also recommends that architects participate not only in the discourse of Design concerning formal order, but also in the other social discourses which have bearing on architecture, and upon which architecture has bearing: the discourse of the Market, which calls for results, and the discourse of the Community about values. In this way architecture embodies not just architectural values but broader social values. Hubbard challenges his own thesis, “But if Design so accommodates itself to the interests of its constituencies, then what about *critique*?” That is, if architecture is cozy to the interests of business people and agreeable to the tastes of mass culture, how can it be ‘subversive,’ to use Mockbee’s term? Hubbard offers this reply. “The question to ask is not *whether* Design critiques but *where*. I would say that the proper place for an architect to mount a critique is not through his design but through participation in the formulation of the charge from each of the discourses [Design, Market, and Community] ... For the architect to be able to respond effectively to a charge from one of the discourses, he must be able to interpret its parts in light of the whole, and vice versa. The surest way for the architect

to be able to gain such an understanding is for him to be present during the synthesis of the charge ... It is in that venue that the architect can offer his perspective on the building situation at hand. Once the charge has been formulated, though, the architect is obligated to respond to it faithfully. To use the design process post facto to critique the charge, after having had a fair hearing for his insights, would be ethically reprehensible.” (Hubbard 1995 p.162)

The thesis project did not include an ostensibly public social agenda. Nevertheless, it did take an approach that brought together designer and client early in the process and on an ongoing basis, so that ‘decisions’ and ‘charges’ emerged out of the conversation along with the design.

Finally, participatory design work is sometimes seen as an opportunity and perhaps a necessity to address environmental and ecological issues.

Stephen and Rachel Kaplan base their environmental design work on the idea that humans have an innate affinity for nature (E.O. Wilson’s ‘biophilia’), that people benefit from regular contact with nature in their daily lives, that people who recognize these benefits are more likely to develop an attitude

of stewardship toward nature, but that some ‘forms’ of nature - literally - are more attractive than others. On one hand they use psychological research and theory to identify patterns of human behavior and preference, and to derive recommendations for how to develop and design natural landscapes to make them more inviting and enjoyable to people. They also use psychological research to determine the best ways to conduct participatory design. They write, “Although we were warned that there is too much idiosyncrasy to find regularities [in human behavior toward nature], that has not been the case.” (Kaplan, Kaplan, and Ryan 1998 p.ix) On the other hand, they promote participatory design because, as they say, “One size fits all’ rarely provides a very good fit. A better fit requires accommodating to the many ways in which people differ.” (p.123) Their approach is to perform a balancing act using psychological research to identify ‘regularities’ in the relationships between people, nature, and design, and derive general design patterns, and then use participatory design to identify ‘idiosyncrasies’ and generate ‘unique solutions,’ or at least attend to the fact that “people are sensitive to signs of making a difference.” Their best insights are that effective communication is the crux of participatory

design; “participation gains much by gradualism and impermanence,” i.e. by using a ‘growth model’ and ‘small experiments’ not subject to mass-produced error; solutions are emergent; maintenance is an important opportunity to involve people in design through small corrections and changes; and these approaches do not guarantee anything, i.e. “the key word is ‘can’.”

In comparison, this thesis project simply stood on the side of participatory design, relying on the process to reveal whatever differences and commonalities there were in clients’ behaviors and preferences. This approach was possible at least in part because of the few number of participants in the project - four, including the researcher. As with the Kaplans, communication was crucial and solutions were emergent.

Others, notably Robin Moore and Roger Hart, use participatory design to pursue the objectives of environmental stewardship by way of environmental education and environmental justice. While acknowledging the insights psychology offers and accepting the premise that biological predilections may be a factor in the relationships between humans and nature, their work is based less on prediction and

manipulation and more on participation and enculturation, and they focus their attention on the experiences of children.

Robin Moore's widely acclaimed work with Washington Elementary School in Berkeley CA was based on the idea that there is a relationship between environmental quality and the physical, social, and psychological health of school children. "We felt that school should be a place where children learn understanding and respect for each other and their environment. Positive child development requires a social, high-quality physical setting where natural learning and motivation through play is woven into the fabric of the formal curriculum. Play is critical to socialization. It is the primary way in which children relate to one another and make sense of their surroundings ..." (Moore and Wong 1997 p.6) Moore's objective to provide a high-quality environment for play with 'natural' elements is in keeping with John Dewey's notions about direct experience, about 'learning by doing,' in the context of one's social and physical environment. "The idea of the Yard [in which a school yard of solid asphalt was replaced by a wide variety of living systems and play environments] was to demonstrate that a higher quality outdoor environment would help improve the quality of children's social

relationships and broaden their range of educational opportunities" And his approach was participatory. "Our most important strategy was to involve as many as possible of the existing and future users of the site in the planning process. We knew from previous experience that the participatory process would take time ... and that to take short cuts would be to risk failure. (p.6) ... Education and participatory planning share the same goal in the identification, development, and transmission of values. Both try to reconcile the tension between 'what is' and 'what ought to be.'"(p.222) Children, teachers, parents, community members, and university students all participated thoroughly not only in the planning but also in the implementation of plans, from hauling away asphalt to planting trees and raising vegetable gardens.

There are several close parallels between Moore's objectives and approach and those of the thesis project. The thesis project was meant to be 'educational' in that it sought to demonstrate to the clients the value of design work in strengthening one's awareness of and relationship with one's habitat. It was also undertaken as an opportunity to explore ecological ideas and address environmental concerns. It passed over presumptions about predictable human behavior in favor

of a participatory process of discovery through direct experience AND sociocultural mediation (learning by doing). The main difference was that the thesis project was tailored more for the adult participants than for children. Also, of course, it was far smaller in scope and shorter in duration, and regrettably it did not proceed beyond design work into the kind of physical, material, and ‘ecological’ implementation process that was so outstanding in Moore’s work.

Through fieldwork in Harlem and many other locales, Roger Hart has developed a strong argument for involving children in the development of their communities and the care of their environment. As a general approach toward social AND environmental objectives, authentic participation is a way for children to practice citizenship together with environmental stewardship, promote children’s rights AND environmental justice. For Hart, involving children in participatory design is part of a broader agenda for environmental stewardship: children’s participation in research, planning, design, management, and monitoring. Again, it is a Deweyan approach and attitude: learning by doing, combining direct experience and social affirmation.

Again, the thesis project shared many concerns and attitudes with Hart, differing primarily by being geared toward adults and being, of course, far less ambitious in its social objectives. What is worth noting is that many of the techniques Hart describes to engage children in meaningful participation are also useful, and were used in the field work, to engage adults who are unfamiliar with professional design practices and media. Various modeling techniques are a prime example.

Different modes of being in individual experience.

Having touched upon the highlights of collaborative and participatory design as practiced by various designers, in which a conversational alternation between different people is most evident, it is now necessary to consider very briefly several other scales at which a ‘conversation’ between differences is in play and may be utilized in design work. Here we turn to the ‘smaller’ scale of alternation between different human capacities, means, and modes of human experience and activity.

Michael Jackson, in his ethnographic works, describes eloquently how individuals alternate between different senses of self and different social roles (1996, 1998). This idea is well

developed in anthropology, linguistics, and other fields of social study. One facet of the self that is often overlooked in our idea-saturated view of the world is that the body has competencies, even ‘knowledge,’ prior to and independent of intellectual theorizing. Merleau-Ponty’s works are perhaps the best explication of this mode of being which he calls ‘praktognosia’ or working knowledge. One vivid illustration of this mode is found in Douglas Harper’s ethnography of a rural machinist, *Working Knowledge* (1987).

Alternation of different modes may also be found in design work. In Edward Robbins’ book *Why Architects Draw* (1994), architect Renzo Piano describes the non-linear alternation of modes in his practice. “It is a concrete process. You start by sketching, then you do a drawing, then you make a model [full-scale operational models that Piano prefers to call ‘tests’], and then you go to reality - you go to the site - and then you go back to drawing. You build up a kind of circularity between drawing and making and then back again ... Designing and making is like having a quiet sort of game and that game is played through drawing.” (Piano in Robbins p.126-127)

What Piano calls a ‘game’ I call a ‘conversation.’ Significantly, Piano includes in his repertoire both ‘renderings’ in the form of sketches and drawings, and ‘reality’ in the form of ‘tests’ and site work, all in close alternation and integration.

Drawings, models, etcetera are also means for communicating between architect, specialist, engineer, contractor, and client throughout the design process. “I don’t believe in the separation between conceptual work, craftsman’s work, and execution work. As I said, everything comes together ... “ (p.131) To include clients in this collaboration, “It is a question of dialogue. You need to build up dialogue. If you only show a reduced solution as if built and finished [e.g. polished perspectives and ‘wedding cake’ presentation models], you lose an opportunity for communicating with the client. It is about participation ... Sometimes it can be dangerous though to show everything, but if the client is a good one then I think transparency is best.” (p.133) Alternating between different modes of design work is itself a way of communicating with clients.

Most importantly, Piano recognizes the inadequacies of design ideas without experiencing the building itself. Robbins writes, “Unlike those who see the drawing as the purest

representation of architecture, Piano delights in the small serendipities that buildings present after the design: 'I have a kind of pleasure in the surprise result that architecture gives. I don't pretend to understand fully the final space [until it is built]. I believe that space in architecture is a result of those elements that you can't draw, like light. I like the surprise. It is a kind of ritual respect.' Surprise comes in building ... because the translation from drawing into architectural object is never exact ... The drawing helps the imagination and gives the architect a particular form of design knowledge, but the architectural space is not complete until it is built, and the built space is not a compromised version of the drawing." (Robbins 1994 p.129) Perhaps it is not only the architectural 'space' that is incomplete until built but even the architectural 'idea.'

Here then is the alternation or 'conversation' between the use of renderings (drawings, words, models, concepts) and direct experience with things themselves, even as they are being imagined, drawn, modeled, tested, made, built, and transformed from idea to reality, even as they change from one form to another. Each form is a creation that enables judgment, and judgment enables the designer to launch the next creation.

This conversation between different modes is part of Dewey's 'learning by doing,' Wendell Berry's 'standing by words,' Robin Moore's marriage of physical environment with school curriculum and community activity. It is also in Hart's work. In answer to the question, "How do people develop a deep and lasting concern for the natural environment?" Hart identifies both "unmediated contact" with nature AND "ways for children to observe, imitate, talk with, and walk alongside adults who actively demonstrate knowledge of and caring for the environment." (Hart 1997 p.19) That is, direct experience and sociocultural mediation - not just renderings by themselves but demonstrations of how to use them, and demonstrations not just by objective 'them' but by subjective 'we.'

It is also a key message in this thesis. The strength of renderings lies in their connection to things themselves and what use we make of them; our understanding of renderings (i.e. of language) is contingent upon direct experience with things themselves in a sociocultural context; and our experiences are informed by our renderings. In short, we humans are able to make sense and use of the world to the extent that we are able to bring our renderings, our selves, other people, and Other beings into 'conversation' with each

other. If we are talking about and drawing buildings, we draw upon our experience with buildings themselves. It is easier to experience a building if we are talking about an existing building. But if we are talking about and drawing a new idea, a building-in-the-making, what better way to experience and understand and make sense of it than to participate in the building of it, the building process.

This was one of the unrealized objectives of the fieldwork. Because we did not reach construction before the end of fieldwork, we could not bring our experience with the building process itself to bear on the design. However, we were able to bring direct experience with the place and with other buildings to bear on our design work. This process is also described by Renzo Piano: “[Plans] are something that help me a lot, but to me there are other systems that help a lot too. One is totally material; that is to create references in the mind. For example, you think about a street in the scheme. Then you start over the next few months to look around you as you move through a new town. I do it quite a lot when I am thinking about a design, I find references everywhere that help me define the scale or size of the scheme.” (Piano in Robbins p.130) In exactly the same way, the thesis project compelled

us participants - ‘designer’ and ‘clients’ alike - to take notice of the design of our environment everywhere, and to question whether the design was successful and whether there might be elements of the design applicable to our own work.

Several practitioners take advantage of the heuristic value of participating in the building process, i.e. entering into conversation between ideas and material forms. The most publicized examples of designbuild are found in the context of architecture education. In an interview by *Architectural Record* (2001 v.189 n.2 p.76), Samuel Mockbee was asked, “How important is the building process as an educational tool?” He replied, “It’s valuable but not totally necessary. What’s important is that students understand the process ... What’s important is that for young architects this experience takes it out of the theoretical and makes it real. They start to understand the power that architecture has and the responsibility they have to the creative process and how that manifests itself in something physical. That’s what architecture is. It’s not paper architecture. No one loves to paint and draw more than I do. But it’s important that students

learn that drawing on paper and building models is not architecture.”

Again, for Mockbee and his students, making things real has profound social - including educational - implications.

For Charles Moore, making things real was a way of building bridges between different ideologies in the profession. “Of all the memories of Yale [where he was chair of the department], the Building Program is the strongest and for me, the one that I am most proud of.” Moore explains the scene in architecture education in the late 60’s which gave rise to the Yale Building Program. [An extensive passage is quoted because it captures vividly and humorously some of the tensions in education still today, and in this thesis in particular]:

“Meanwhile, on the shore ... a pair of religions flourished. The first one, an Apollonian faith, said that there is no God but Technology and the Computer is his prophet. It looks to the quantification of information both human and technical, and the superhuman organization of the quantified bits to bring order out of the senseless confusion which the complexity of the modern world has brought to the still-too-simple building craft. The orthodoxy priesthood of this

religion had the faith that organization of information itself is the goal and that building is really an after-the-fact irrelevance best handled by contractors or other menials.

“The other religion, a true Dionysian one, was more mysterious, and employed a magic, often Black. Its faith was interaction. In its more conservative form it especially advocated interaction with social scientists who were presumed to be sitting upon the secrets which must be learned in order properly to design the physical environment, and who would, if correctly interacted with, divulge these secrets. In the more radical construct, the Interaction was with the Poor themselves, with people actually in need of the physical facilities which architects can produce; and middlemen had to be chased from the temple. Both these religions, Apollonian and Dionysian were, as so many evangelical religions are, intent on burning. The victim of the torch was, perhaps unsurprisingly, building, which got short shrift from the new high priests.

“This then was the politico-religious situation on the shore of our lonely sea, in which the architectural educator found himself in 1968. These two religions had the power to light the imagination; to have ignored them would have been wrong. On the other hand, to have cheered while they burned

the books and the buildings would have destroyed, I believe, the very things we were there to promote. The answer, I suspected, was a kind of ecumenicism, not so simple, certainly, and not the same thing as the eclecticism of styles which Frank Lloyd Wright and others so ardently decried, but an attempt to use the newfound strength of these faiths while we tried to avoid their more obsessive shortcomings and to turn their power to the cause of building a three-dimensional environment.

“In this situation, in 1968, I believed that architecture was only properly teachable in terms of use in response to the people who were to inhabit buildings, their life styles, their concerns, their privacy, and their public realm. To teach architecture simply as the composition of shapes was out of the question. Yet for the designer to be able to operate at all, he had to be able to make things knowingly, to compose shapes and voids, as well as to manipulate programmatic firsts.

“We all thought, what better way could there be to achieve any of this but to actually build something with our own hands ...” (Moore in Keim 1996 p.122-123)

Thus was inaugurated the Yale Building Program, with students designing and constructing a community center for New Zion, Kentucky, for their first project.

Forrest Wilson argues vigorously for “restoring the connection between architect and builder” as a way to resist the monotonous and dehumanizing influences of divisions of labor and industrial production. Building is too much an “essential ... vital human activity” to surrender to designers who “cater ... to the divine right of kings and institutions” instead of “tending to the growth of the design right of ordinary people.” (Wilson 1979 p.156)

Christopher Alexander also practices designbuild because many design problems at various levels of detail can only be identified and resolved *in situ*, with the places, spaces, and materials themselves. Mock-ups are central to Alexander’s work because they allow people to feel, respond to, and make adjustments to spaces, places, and materials before committing them to final construction.

Again, the thesis project did not succeed in demonstrating the reflexive connection between the building process and design because the project did not reach

construction stage. Trial layouts were the closest approximation.

Designing and building are not the only modes in operation in ‘conversational’ design, of course. As described above, Mockbee underscores the importance of participating in community as an architect with social, political, and economic interests; Hubbard concludes that the architect must engage not only his architectural self but also his market self and his community self in his work, as he does naturally in going about his daily life, “living out multiple narratives.” (Hubbard 1995 p.96) An architect has many modes and capacities with bearing on his/her work, intellectual, physical, emotional, etcetera. In interview, when Mockbee observed that “the role of any artist is to help people see things as they truly are,” *Architecture* magazine asked, “Does that begin with reminding architects that they are artists?” Mockbee replied, “Oh, I don’t think architects have trouble seeing themselves as artists. The more difficult thing is to get architects to see that they have a heart and they ought to use it.” (*Architecture* 2000 v.89 n.8 p.27)

While all of these modes of being may be brought into conversation within the individual, a conversational approach to design may also be useful at scales of interaction ‘larger’ than those within individuals and ‘larger’ than those between different individuals, that is, at a scale of interaction between human beings and wholly different kinds of beings.

Different kinds of beings in ecological design. Here the conversation enters the realm of ecological design and, over time, evolutionary design, where adjustment and adaptation between organisms, each other, and their environments - including the environments they create themselves - are evident. At this scale all human renderings are meaningless and inconsequential to other participants except as they consume resources and return them as physical activities and material forms. It is now a ‘conversation’ in matter and energy, animate and inanimate, no less wonderful and significant than our own worded dialogue.

Less will be said about this important scale of interaction because, due to the shortcomings of the fieldwork, there is little field data to compare with other projects and other practitioners.

With his notion of pattern language, Christopher Alexander talks about the evolutionary nature of design, portraying it as variations in the expression of archetypes inherent in human nature, a ‘genetic code’ of design as it were. It is easy to construe this approach as design by patterns, language as vocabulary.

The complementary approach intended in this thesis was to explore design as a ‘spoken’ language in which the acts of ‘speaking’ with Others - other people, other beings - give rise to numerous surprises and inventions - that is, design as physical and material, ecological interactions and mutual adaptations in which history and contingency play pivotal roles in its evolution. This intention was unrealized as the project never entered construction.

In his book *How Buildings Learn* (1994), Stewart Brand highlights the use of time as an architectural medium, detailing ways in which some buildings evolve over time in adaptation to changes in human use and environmental context, whereas other buildings endure in use and meaning through ages, and still others are designed *not* to adapt well and

therefore live short, uncomfortable, and wasteful lives. Brand recommends an architecture that accommodates time, adaptation, and usefulness well - ‘evolutionary design’ of sorts.

Sim Van der Ryn and Stuart Cowan (1996), among others, describe ‘ecological design’ by which buildings and other human facilities are modeled after and adapted to ecological systems. They propose five principles for ecological design: solutions grow from place; ecological accounting informs design; design with nature; everyone is a designer; and make nature visible.

It was the last two principles, whereby clients were invited to become active participants in the design process, and the design process brought people into direct experience with their environment, that figured especially strongly in the intentions of this thesis project.

Regarding his project with Washington Elementary School, Robin Moore writes, “Long before construction of the [Environmental] Yard was complete, we realized that the planning, design, and construction process was itself an ecological process ... Comparing the ‘instant’ landscape

approach with the ‘evolutionary’ one, we find that the instant approach cannot achieve the same depth of involvement and co-evolution of values and environmental experience ... “ (Moore and Wong 1997 p.238) Moore describes the cyclical way in which experience changes awareness, awareness leads to changes of the site, and changes of the site afford new experiences - an alternating ‘conversation’ between renderings and things themselves. This approach to design and to education takes time and ongoing “official institutional commitment” to evolve into a healthy human ecosystem. (p.241)

John Tillman Lyle, William Thompson, William Jordan, Sara Stein, and others offer excellent insights into how Other beings of nature can be brought into a conversation with humans through ecological design and ecological restoration.

Different scales of interaction in ‘cultures of habitat.’ Finally, when human practices of all scales and dimensions are brought into conversation with the land as a living community, for the health and sustainability of both human life and the life of the land, design may be seen as part

of a ‘culture of habitat.’ Gary Nabhan (1997) describes traditional cultures of habitat in the desert Southwest. Wendell Berry (1977) explores the conversation between culture and agriculture in Kentucky. Freeman House (1999) describes a contemporary example of a re-emergent culture of habitat in the Mattole River watershed where growing local, public interest in saving the indigenous race of salmon led to a renewal of the health of the river, the land, and the community. Architect Renzo Piano said, “You know architecture when it is in your mind and when making the sketch and the design, and the drawing helps this. But you have a big jump to the next step when the architecture is made, and that is the surprise, when it is finished.” Freeman House and his community made that big step from renderings to physical/material/ecological engagement with the land. They learned a lot about salmon and their land using fisheries data, GIS maps, and so forth, but they also spent long winter nights by the river waiting for the return of the first of few king salmon to spawn, protected every precious fish egg and fry from silt and fungi, and noticed how stream-bank alders establish in drought years, not flood years. Their efforts began to make a difference. “The watershed was healing itself ... We could either move away entirely for two

hundred years, or we could make the processes of recovery our guide and seek to put our hand in wherever it would effectively move the process along. We were rediscovering that all learning is collaborative and that the collaboration extends beyond humans to the landscape and the many intelligences embedded therein.” After twenty years of working to restore the watershed, House writes, “I am beginning to become conversant with the landscape and the conversation is reciprocal. It is early autumn now. Soon the salmon will arrive ... I will be thinking about what salmon are trying to teach us. That there is a way for us humans to be, just as there is a way for salmon to be. That we are related by virtue of the places to which we choose to return.”

Twelve months was a long time for a thesis design project, adequate for a conversational approach to designing a house with clients, but far too short to become conversant with the land. Perhaps the project has prepared us better to keep talking, and listening; designing, and building; acting, and awaiting a response from the land, for the long-haul conversation with our habitat. But we have a long way to go.

Summary. In summary, a conversational approach to ecological design builds upon the previous work of designers and builders, but adds emphasis to several key features.

A conversational approach to design begins with Alexander’s idea of a pattern language but shifts the focus of attention away from presumably archetypal patterns (Alexander) and toward the function of interactive communication (CW Moore, Jackson). Communication does not require universal archetypes nor consensus; rather, it requires links between differences so that differences may contribute uniquely to mutually health-giving relationships. Communication is enhanced when designer and client participate in joint activity early in the process (Mockbee, Hubbard) and on an ongoing basis. Communication is also enormously enhanced by alternating modes of interaction (Piano). The fieldwork for this thesis emphasized the alternation of BOTH direct interaction with things themselves as a shared activity AND rendering these interactions into conscious experience through dialogue and other conceptual tools: drawings, models, etcetera (similar to Halprin, R Moore, Hart but focused on designbuild). In this way, conceptual ideas regarding design may be illustrated or demonstrated by

publicly available, physical and material interactions, and a common language may be found via shared experience.

Shared experience functions as the link between differences that enables communication.

Although the field work fell short of its physical/material objectives and therefore also its ecological objectives, another key feature of the argument in the thesis is that the land as an ecological community may be brought into the conversation by allowing the land (time) to respond to incremental, physical/material design moves and taking these responses into account in the further development of the design (Van der Ryn, House, Jordan, et al). This approach calls for open-ended design, design which permits ongoing adjustment, adaptation, and evolution as our understanding of the conditions of a design grows through experience and/or as circumstances surrounding a design change (Brand). In this way, design is never the finished expression of an isolated concept but may become part of an ongoing conversation with land and habitat. At its best, a conversational approach to ecological design may move us slowly toward a mutually healthy ‘culture of habitat.’

Chapter Five: Conclusions and Implications

The Use of Conversation in Design

Usefulness. In this project, a ‘conversational’ approach to design was useful in several ways.

First of all, it heightened all participants’ awareness of habitat. Clients acquired ‘eyes to see’ things in their environment that had previously escaped their notice or remained nameless or inexpressible, things both of the built or designed environment (‘window place,’ entranceways’) and the natural environment (the sweeping view from the upper terrace, the value of shade from the walnut trees at the garden gate). It prompted clients to take notice of their own living habits and how they might be addressed in design (the preference for ‘edges,’ a place in the sun for morning coffee). It also heightened the designer’s familiarity with the land and house as the clients saw them and used them - valuable information for design work (‘sacred’ green space east of the house, fieldstone and pine poles for construction). By learning

to see through clients’ eyes, including needs and preferences, it gave the designer reason to take notice of more features of the environment than were of personal, customary interest (slab versus foundation wall, issues pertaining to wood heat). In other words, it widened the designer’s field of view too.

This heightened awareness for all arose out of both more active engagement with the environment AND the means and opportunities to talk about it (the walking tour WITH the discussion, cardboard modeling AS A GROUP). The clients were able to practice ways of talking about design issues and expressing design ideas, ways which even though unfamiliar and sometimes difficult, did reveal important information (cardboard modeling clarified the purpose and scope of the project, client’s sketches precipitated constructive dialogue about siting). The ‘conversational’ approach was an opportunity to clarify ideas and also acknowledge differences (different levels of comfort with the wind, family all together in one big room versus quiet retreat or den spaces) and perhaps accommodate them (open floor plan with some differentiation into niches such as the breezeway greenhouse and the living room). Conversation both broadened the field of ideas to work

with, drawing each other out of perceptual ruts, and it also tempered wild ideas and required us to ‘think again,’ reconsider, not settle for ‘top-of-the-head’ ideas.

Furthermore, the conversational approach both reclaimed a sense of history (the Bewells’ love for the site of their first camp) and prepared the clients to move forward, giving them hope that some of their dreams could be realized in practice not only from the standpoint of engineering and construction but also in terms of lifestyle, in which the intentions in the design of the house are integrated with the clients intentions for how it will actually be used (accommodations for wood transportation and heating make it feasible to do so at age 50, accommodations for cross ventilation will be used and not blocked). The project also highlighted the indeterminate nature of design, which has its roots in cultural history and context and is perpetuated and adapted by each new act of designbuild. The conversational approach, by including clients in the interactive practice of design, gave them some means and experiences to draw upon in the future. Although this particular designer will likely be

gone from the conversation, there will be new conversants, including - vitally - the land and material world itself.

Fourth, by ‘conversing’ directly with the material world and not always trading only in linguistic concepts or other renderings of the world, the material world ‘spoke’ to us in ways sometimes surprising, sometimes useful, in which chance and accident were serendipitous beyond the constraints of our own plans and purposes (the way the ‘roof’ slipped on a cardboard model suggested clerestories; the way the trees shaded us suggested we include them in the design).

The use of a conversational’ approach and interactive techniques in this project was especially useful at generating a variety of ideas and tentative evaluations, but it was less useful in making selective judgments and firm decisions.

Conclusions. This project indicated several interesting characteristics of design work, especially ‘conversational’ design. These are of course not inevitable conclusions but they are corroborations of earlier propositions and issues worthy of additional consideration.

First, both direct engagement AND making sense of it by means of language - i.e. alternating modes, the ‘show me’ attitude - are vital to engaging with the world and doing design. Yet they are most useful when undertaken not as unilateral or monologic determinations but as dialogic interactions, because as interactions the circle of participants with bona fide voices is enlarged, the conversation is enriched by wider collective experience and imagination, and the interconnections and reverberations of the whole, healthy ecological community are set in motion and given life by use and meaning. Far from breeding mechanical imitation, the ‘show me’ attitude and relationship makes participation attractive and exciting because it makes participation constructive and meaningful, and stimulates a diversity of ‘interpretive reproductions’ (Corsaro) like the diversity of human faces and the variety of ways we use language.

Second, two of the most important means of engaging with the world and doing design in a conversational manner are ‘time’ and ‘attention.’ Using time well is NOT primarily a matter of speeding things up to as quick a pace as possible. It

is critically a matter of finding the right rhythm and tempo depending on the participants involved, the means of interaction, the subject of conversation, etcetera. Time is required not just to speak one’s mind or express one’s concepts, but also to allow time for the Others to respond in their own way, and to quiet one’s own mind enough to listen and hear what the Other is saying; that is, to pay attention. It is only by paying attention to Others that the world conceived in one’s own limited mind may be enlarged and enriched.

Third, in a world where diversity and contingency are as evident as commonality and natural law, paying attention to diversity and contingency enables us to find delight and even use in mistakes, gifts, and differences in wonderful, unique, unplanned, and adaptive ways.

Fourth, although it is difficult enough just to fully acknowledge, accept, and receive another human being in conversation, and requires an act of empathic imagination, it is worth the effort to enlarge the circle of conversation even more to include wholly different kinds of beings and ways of being. The ways of a tree, for example, the sense of history pulsating

quietly in one place with flushes of growth and dormancy season after season, decade after decade, while creatures hurry by and houses rise and fall; a being half groping in the mysterious, cool close darkness of earth searching for water and raw materials, and half lifted high into the air on a massive scaffold, sucking in and breathing out through millions of tiny mouths and humming away making food out of the rays of the sun. Surely such a marvelous being has something important to say to us, but of course it takes time, patience, opportunity, imagination, and ordinary intuition to observe a tree's slow response to our actions, and to notice ways in which the tree suggests things to us. Even a cardboard model has something to say beyond what a person might originally conceive in the mind. But conversing with such beings takes time, patience, and it requires looking for opportunities and paying attention enough to pick up on the 'language,' the responses of the Others.

Fifth, creating, brainstorming, and generating variations are all fun and vital, but judgment, selection, and decision-making are also necessary. The difficulty of making decisions in the face of 'unlimited' possibilities, infinite variety,

uncertainty, and transience, knowing full well the limitations of one's knowledge and the likelihood of errors and omissions, is not to be underestimated. Furthermore, judgment and creation are different modes that seem to call for quite different approaches and practices. Active conversation is useful for stimulating creative ideas but it may be inappropriate for making judgments. However, if we recognize that the quiet interims between active engagements are also part of a conversational relationship and that they provide the necessary opportunities for reflective, holistic, intuitive, and anticipatory thinking, then conversation appears to stimulate judgment too. Active engagement provides food for creative thought, the interims allow for digestion and selective assimilation. These alternating modes are vital to each other.

A sixth issue of interest concerns the shifts back and forth between different levels of detail, or the balance between fine, specific detail and larger, general concepts - including the concept of whether to build at all. It is not that one always starts with a general concept or a firm commitment and then fills in the detail. A good cook goes to market, chooses the best, freshest foodstuffs, and then finds ways to use them in a

tasty dish; an ecological builder identifies what resources are locally available and minimally disruptive of the land to harvest, and considers how they may be used, and conceptualizes a design using those resources; a decision whether or not to build may hinge on whether a design ‘sells,’ i.e. whether it is exciting and convincing. At the very least, it may be said that design issues at various levels of detail must be addressed in iterative fashion until an overriding concept ‘clicks.’ However, it is also questionable whether one should worry about ingredients if he/she is not prepared to cook. Designer and client must together negotiate a balance between the degree of investment in the design, especially in finer detail, with the level of commitment to build it.

These observations raise several questions and challenges for the designer. How does one find the right rhythms and tempos for various modes of interaction in design work, not only amongst people but also with habitat? It takes longer to converse using models than it does using words. It takes longer still to converse at the pace of a tree or garden soil ecosystem. Means or ‘tricks’ need to be found. “Sketch

dialogues’ [not used in this project], in which participants ‘converse’ using sketches instead of words take on a distinctly measured, deliberate pace of turn-taking almost certainly because they are done silently, and so without the socially habituated quickness of verbal dialogue. In this project, sand cast modeling exercises may have suffered for lack of a means to *slow down* the turn-taking to a pace appropriate to the medium of communication. Perhaps implementing a ‘rule’ of silence, or perhaps exchanging written rather than spoken comments to help clarify the meanings of models, may improve the technique. The practice of using a ‘talking stick’ in Native American council meetings may be another useful means to regulate the cadence of turn-taking. Again, managing time is not primarily a matter of speeding up, it is a matter of integrating pace, medium, topic, speaker, and perhaps other factors.

Second, how does one make judgments in conversational design? On what grounds does one base judgments? One cannot always expect consensus to emerge; in fact, the beauty of conversation is its ability to accommodate differences while sustaining a common activity. Is making

decisions compatible with a conversational approach? Does judgment necessarily devolve from the group to the individual who has power or control or authority? Perhaps judgment is always an individual act; each time an individual takes a turn, he/she has the power to exercise judgment and influence the conversation. In the case of this project, the designer exercised 'final' judgment regarding the conceptual design because it was his turn to respond in the conversation. Of course the clients reserved judgment about whether and what to build. Perhaps the builder will exercise critical judgment in how the house is built. The land will 'pass judgment' once the house is built, either responding with erosion and decay, or embracing with healthy life. Judgment, like design, is not a concluding act - it is a turn in an ongoing conversation - but each turn requires judgment in order to launch the next turn. The interactive techniques of this project were excellent for generating variation. Yet it may be worthwhile to explore other techniques and/or other approaches for 'operationalizing' the process of selection, for bringing judgment into evidence to the satisfaction of designer and client alike (leaving out for the moment builder, materials, and land).

Third, how can one practice design in a way appropriate to the ongoing, indeterminate nature of an ecological conversation with habitat? It would seem either to require an ongoing relationship between the designer, client, and land, whereby slow, emerging responses of the land (e.g. the plant life, soil, stormwater, etcetera) could be taken into consideration in the design conversation, or it would seem to require that the client take on the role of designer. The latter, of course, is what most people choose, either for reasons of economy or pleasure, but the ecology of the land and even people's own domestic functions often suffer for lack of knowledge, experience, or attention to design. Perhaps a different kind of business relationship between client and designer would be helpful, one that is more iterative, incremental, and long-term. Landscape 'maintenance' people would be designers, not maintaining the landscape in a permanent state of stasis but sustaining and strengthening the ecological relationship between client and land, by responding to the land on an ongoing basis. Or perhaps a more educational relationship would be appropriate for interested clients, whereby the designer provides opportunities for clients to learn design by practicing on their own land but under the tutelage of

the designer. The client assumes some risk, responsibility, and labor, while the designer shares skills by demonstrating them, and the design unfolds in evolutionary fashion rather than be implemented instantly and then ‘maintained.’ Any of these scenarios, if feasible, may not only enhance the overall awareness and practice of improved design in the environment, but they may also strengthen the connection between design and the ecological function of the land.

The role of the designer. If any use is to be made of this project, the work should have something to say about the role of the designer in collaborative, ecological design work.

The aforementioned characteristics of conversational design give some indication of the designer’s role. First and foremost it is to facilitate interaction, to keep the conversation going between client, designer, material world, and habitat. Workshop techniques that balance direct embodied engagement AND verbal dialogue are especially effective. Also, attending to the alternating modes of conversation in various dimensions and at various scales of interaction is vital. One such dimension is taking turns listening, speaking,

formulating a response, and allowing others time and opportunity to respond. This alternation, exercised with appropriate willingness and restraint as needed, provides a forum of opportunity for both clients and designer to express ideas, respond to ideas, elicit ideas from each other, combine ideas in new ways and in a variety of forms. It is a chance for clients to talk out and clarify their own ideas. And presumably the designer has valuable experience, awareness, and practice with design to draw upon and contribute his/her own ideas to the conversation too, to expand the realm of possibilities and provide evidence by which to evaluate them. However, the clients’ ‘beginners’ mind’ - not to mention their pocket book - adds essential freshness and life, as well as good ideas, to the conversation.

Another valuable role of the designer is to translate back and forth between, on the one hand, general knowledge, conceptual ideas, and/or linguistic expressions, and on the other hand, specific material forms, be they drawings, models, layouts, mockups, or phases of construction. This ability to move back and forth between conceptual ideas and material forms, and to use the tools needed to make the translations

back and forth, is one in which the designer presumably has more practice, experience, and skill than clients, and one for which the designer's assistance may be most valuable.

Another alternation of special concern is that between creation and judgment, variation and selection. It is important that the designer (or client too) refrain from passing judgment too emphatically during the brainstorming phase. At other times it is equally necessary to find some suitable, acceptable protocol for moving from variations to selections, i.e. for evaluating creative ideas, exercising judgments, and informing decisions, in order to move the process along. The designer may help the process by sensing when to stimulate creative thinking in the group, and when to encourage evaluation and decision-making. It is also the designer's role to explain the consequences of potential design moves, pro and con; this requires taking the time needed to think through design proposals and explain the consequences clearly to the clients. It may also require looking for guidelines, practices, and mental attitudes altogether different from those used in 'brainstorming,' practices that favor judgment instead.

The designer may also make the most of conversational design by balancing the pursuit of plans and purposes with the gifts of serendipitous, chance discoveries. It is this balance between purpose and chance, information and experience, concept and thing itself, commonalities and differences, which yields dividends in delightful and adaptive design. Again, interaction by both dialogue AND direct, embodied engagement allow this happy marriage to take place.

Finally the designer must attempt to conduct the conversation at a rhythm and tempo appropriate to the participants, the medium of communication, the phase of work, the issue under consideration, and so forth. This may require taking turns more *slowly* than is customary in verbal dialogue, and finding ways to mark time at that slower pace without intruding upon or inhibiting the exchange.

Chapter Six: Summary

This design project was an attempt to use landscape designbuild work to help participants make sense of and make use of their habitat in a way that reconciles human needs with ecological functions. It was a response to the prevalent disconnection between, on one hand, conceptual information and education, and on the other hand, physical and material work with the land itself.

From the perspective of pragmatism and phenomenology, meaning and use are not to be found in individuals but in the functional relationships, the interactions, between different beings and different modes of being. For people to make sense and use of the land, and for the land to accommodate us, both dialogue AND direct, embodied engagement are vital modes of interaction.

The fieldwork, in which participants (clients and designer together) used a variety of techniques to interact with each other and with the world, both conceptually and materially, showed how this kind of multi-modal interaction functioned like an embodied ‘conversation.’ It was

characterized by alternating modes of interaction, by turn-taking, by rhythm and tempo, by the accommodation of differences in a joint activity, and by the emergence of means, meanings, and purposes.

Several points of practical consideration arise when one approaches design as a conversation. First, attending to the multiple, reciprocal **relationships** involved in embodied conversation, including practical and functional relationships with the land, becomes a priority for participants, because the meaning of facts is not an inherent property but a social, relational function.

Second, using a combination of dialogue and direct embodied interaction is a much more convincing way to make the work understandable and meaningful than either mode alone. It is a way for designer-builders to ‘set an example’ for clients to follow, and vice versa. These examples are demonstrations of practice people may respond to, interpret and adapt for their own use, not examples to follow mechanically as though they were the only way to act.

Third, it is necessary to nourish the ability to make judgments as well as be creative. This evidently requires

alternating between different modes of conversation and valuing the interims as well as the active engagements.

Fourth, one important mode often overlooked is the quieting of one's own language, enough to notice how Others are responding, what Others have to say, verbally, physically, or otherwise, in their own way and at their own pace.

Fifth, it is important to find the right rhythm and tempo for the turn-taking and the alternation of modes, often at a pace slower than we are accustomed to in verbal communication.

Sixth, it is also beneficial, in the partly unpredictable flow of embodied conversation, to develop an eye for useful mistakes, accidents, gifts, and other contingencies, as well as to avail oneself of proven means to pursue one's plans.

Seventh, if designbuild is to become truly ecological and adaptive, it will require inventing different business practices, practices that permit relationships between designer, client, and land to develop and that allow the physical and material manifestations of those relationships, i.e. the designed landscape and habitat, to emerge and grow over time.

In these ways, landscape designbuild as a practical, constructive, 'conversational' relationship between people,

each other, and the land, may contribute to a healthy 'culture of habitat.'

"Despite all the effort and energy being expended in the building, the space felt dead when compared to the spring that was happening outside. Perhaps I just resented missing the spring, but I am not sustained by working indoors. I have too much control inside, and after a while I am drained of reasons for being there."

Andy Goldsworthy 2000 p.11

"An active landscape is neither completely 'wild' nor excessively controlled ... Like a good garden, it is a kind of conversation with nature."

Sim Van der Ryn 1996 p.120

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Appendix:

An Annotated List of Participatory Design Techniques.

The following is a list of techniques used by the design practitioners reviewed in the section entitled Professional Context. Each item is annotated with references to practitioners who demonstrated or discussed the technique especially well, plus any noteworthy variations on the technique. Comments on how the technique was used in this thesis project are included where appropriate.

Adjustment:

also Adaptation, Monitoring, Evaluation, Maintenance.

- Alexander

- Brand: *How Buildings Learn*

- R Moore: the evolutionary design process

- Kaplan, Kaplan, and Ryan: "Permitting local involvement needs to be an ongoing part of management."

Brainstorming:

- IDEO (industrial design company) guidelines:

1. one speaker at a time
2. stay focused (requires moderator)
3. withhold judgment - never say 'no'
4. build upon preceding ideas of others
5. start with something concrete
6. (when it comes down to decisions) speak in terms of consequences of alternatives

- Hester: brainstorming, buzz sessions, etcetera

Collages:

- Hart: may include one's own photographs of neighborhood

Computer simulations:

- Photoshop maximum benefits for minimum expertise

Construction:

also Building, Planting, Implementation.

- Francis: phasing allows evaluation and adjustment

- R Moore

- Jersey Devil: designbuild residential architecture

Demolition:

Also Clean-up.

- R Moore

Discussions:

Also Dialogue, Active Listening, Meetings.

- Abramowitz: speak, listen, hear
- Halprin and Burns: active listening
- Hubbard: to bridge different discourses (Design order, Market results, Community values)
- CW Moore and others: to review alternative proposals
- Hester: various forms of town meetings

Drawing by Designer:

Site plans, elevations, plans, perspectives, diagrams, and sketches.

- Kaplan: site plans alone are poor means of communication with clients

Drawing by Participants:

Also Sketches, Sketchbooks, Sketch Dialogues

- Hart, Francis: to elicit base information about existing conditions, present activities, problems/ likes/ dislikes, and 'ideals'

- thesis - to generate design ideas

- Hart: individual or collective

- CW Moore: participant sketchbooks, using butcher paper

- Rapp: silent sketch dialogues

Events:

Also Special Events, Public Events, Publicity.

- R Moore: workdays, festivals, open house
- Hart: design kiosk to solicit public comment/ input

Interviews:

- Hart

- Harper: photo elicitation for ethnographic study

- thesis: photo elicitation interviews good way to become familiar with site and its meaning to clients

Inventories of Site, Resources, etc:

Also Site Survey, Soil Survey, Plant and Animal Identification.

Layouts:

Also Trial Layouts.

- Alexander: layouts even without drawings
- thesis: trial layouts of plans (floor plans, landscape plans, etc)

Mapping:

Also Topographic Maps, Locational Maps, Behavioral Maps, Shade Maps.

Hart: trace around bases of models of neighborhood houses to generate map; personal world maps; community base maps (large); walk-on maps

Mock-ups:

Also Full-size Mock-ups, Functional Test Models.

- Alexander: to test 'feel' of space, dimensions, material, color, etcetera
- Hart: cardboard
- Piano: functional test models

Model-making:

CW Moore: 2-D modeling with paper, cellophane, Fruit Loops, parsley, and scissors; clients build models singly or in groups;

designer builds four alternative models, leaves with clients for one month to consider, compare, evaluate

- Kaplans: simple models balance effectiveness and cost
- thesis: clients sensitive to detail, or lack thereof
- Hart: models excellent with children because analogous to toys, so readily understandable
- thesis: cardboard models made by participants, matboard models made by designer
- thesis: sand cast models for manipulating terrain, needs refinement for easier use
- Rapp: sand box models used for community garden project

Observation:

Also Tracking.

- Hester: observe 1) activity, 2) interaction, and 3) ecology
- Hart: Harlem school grounds project

Photography:

- Hart: may be used in collages
- thesis: used for photo elicitation and for tracing design ideas over existing structures
- may be manipulated by computer (Photoshop)

Plant Propagation:

- R Moore: Environmental (School) Yard
- Hart
- common practice in volunteer ecological restoration work

Surveys:

- Also Questionnaires
- Hart, Hester, Francis

Self-Conduct:

- Abramowitz, Hubbard, Lam, Carr
- Jackson: good ethnography often hinges on social skills
- CW Moore: don't be defensive (slow reactions help), don't take personally, look for bridges, make areas of agreement clear to all

Slide Shows:

- CW Moore: 'Rorschach test' - 1) Do you like it? 2) Is it appropriate for the project?
- Hester: 'introduce neighborhood to itself'
- Lam: slides of nearby examples of good and bad design that clients pass by regularly - combined with lecture

- Hart, Kaplans

Storyboards:

- Hart

Time:

Also Pacing, Commitment.

- Brand:
- R Moore
- thesis: a critical issue
- Alexander: often runs over time and budget

Video:

- Hart

Visits:

Also Site Visits.

- CW Moore: lunch on site to take notice of assets
- R Moore: show visitors site to solicit interest and support

Walks:

Also Tours, Field Trips, Guided Tours, Scored Walks.

- Lam: guided tours stimulate and educate clients
- Francis: tour of neighborhood led by residents reveal their needs and values and preferences (Village Homes children)
- Halprin: scored walks to share experience
- Hart: scored walks and other

Writing:

Also Journals, Fieldnotes, Minutes of Meetings, Written Documents.

- Hester: minutes a valuable record; use chalkboards, newsprint for town meetings
- Halprin: summarize ideas in writing at end of each session
- R Moore

Vita.

Peter E. Rapp

Peter Rapp earned a Bachelor of Science degree in botany from the University of Washington, Seattle, in 1982.