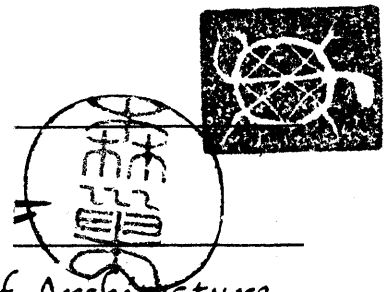
AMERICAN DWELLINGS: Being a true and accurate Account of the Author's geological Expedition into that Land, of his subsequent Capture & Conversion there amongst the Massawadchueset Natives, of his Great Escape and return to Civilization; and Divers Projects resulting therefrom

by Aron Faegre
B.A., Reed College, 1972

Submitted in partial fulfillment of
the requirements for the degree of
Master of Architecture
at the
Massachusetts Institute of Technology
May, 1976

Signature of Author



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Departmental Committee on Graduate Studies

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Submitted to the Department of Architecture in May 1976
in partial fulfillment of the requirements for the degree
Master of Architecture.

The intention is to work toward an understanding - hard bottom and rocks in place - for American building.

Thesis Supervisors: Günter Nitschke
Adjunct Professor of Architecture

Maurice Smith
Professor of Architecture

to

Günter for encouraging me to keep at the whole thing
and saying "in the end you will have nothing"
Margot for doing the caligraphy
Maurice
Joan for strong, helpful criticism & daily
encouragement
Steven who was always available for advice / who
brought the "introduction" out of me
my brothers and parents

bear & raven
and
tortoise & badger

bill shelly lueez chris steven susie becky ed
rod margo dan dan julia john cliff yunghi namhi
wag lisa simone willa will russ cathy deiter sokhi
sanghi ginny darcy irene peter peter tom
ann andy andy andy al phylis rose andy petros ted
nick linda bruce marcia don timmy benjamin fred
marta kim hanna jimmy horst doan michael furda
myunghee peter ed craig rosie mick david ed tony
darcy joe betsy kurt james tristan betsy julian
pat kristin rya jeeves fiddlesticks groucho
harpo george keith charlie rachael ellen fran minnie
leonard gerry frank tremmie stan linda barbara
bill bob donlyn lee marian marion julie jose
marianne jose ned jean nick bob lissette paul
howie mort skits dick jim chester mike mike marriane
christian kathy young frederick deiter rolland
kate laurie fred norman rob jeannie alice jean
brad anna jeanpierre gail george
robin lisanne mary jim dale maggie
michael friends that slip me too all
I advise you friends read the story first
then see if any thing else makes any sense
gary lew charles wcw henry walt wood
thanks fer wot you writ
david lea dan leon joan sam rick
mike bob fred
lee sharyle kevin andrew
neil jill kathy
carol tarrie

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INTRODUCTIONS

This paper is a study of the architecture of north-eastern America. It is meant to be a history: several buildings and builders are critically examined, and a story is told. Before jumping into the text, there may be some profit in exposing my stance toward historical studies. This will bring us to the larger issue of my motives in taking up the study.

As I see it, there are two ways of undertaking a study. 1) We can go straight at it as the object of a scientific inquiry: we make an hypothesis, followed by analysis and experimentation, yielding a conclusion. Like an archer, we shoot an arrow at a target and examine the result. 2) Another way is to let oneself come close to and experience the thing of interest. Rather than identifying it as an object of scientific study, we would try to let the thing speak for itself.

This paper runs both these paths side by side. It is this distinction which accounts for the division of the paper into two parts. The first, titled "Introspections," suggests the image of myself (subject) "looking into" American architecture (object) with a relatively conventional analytic stance. This section examines American architecture of the north-east, in terms of five topics, each with its own hypothesis to be examined:

1) Geologic Form: the American continent is built with a structure and form that is understandable; the way this "large building" is inhabited and used, yields a natural language of form and structure.

2) First Inhabitants: the native Americans see and use the landscape as a "large building."

3) New England: the English colonists see the continent

as largely un-inhabitable and dangerous; on arrival they consider their job to be one of making complete God's creation: Planting the Wilderness; however, the size, materials, and intensity of the continent lead some to a more sympathetic stance.

4) The New-Old Understanding: from the "first poets" and transcendentalists emerges an understanding of building which is grounded in the land.

5) Built Form: the arts and crafts movement turns these poetic understandings into built realities.

These five introspections are intended to support a larger hypothesis: that there is an American way of building which considers the land, plants, and animals as the source for all building.

The second part, "Projections," is meant to extend my experiences in "coming close to" American architecture. The word projective lies between subject and object. It suggests the image of a projectile traveling in mid-air. We ride the arrow: being both hunter and hunted.

Unfortunately, it is not so easy to keep separate these two ways of studying things. Our everyday life sits in both worlds, so the division of the text between Introspections and Projections is not completely

accurate. Several of the five topics are incomplete as analytic studies. Especially, sections (3) and (5) are left as preliminary hypotheses. As such, they are projective in nature. In an attempt to make this distinction clear, the more *projective* parts of the written text are printed in *italic type face.*

To show the gist of the larger hypothesis ("that there is an American way of building which considers the land, plants, and animals as the source of all building"), the five topics are placed one following the other. This larger hypothesis is thus left in a projective or improvisational state: incomplete as a scientific endeavor. But to the reader who will let himself "come close to" what I am speaking of, the larger hypothesis may reveal itself. In the left margin of each page, where appropriate, I have referred to other sections of the text which yield in myself a resonance leading toward the larger hypothesis. For the reader who will get more involved, a bibliography is placed after the text. Books quoted within the text, as well as suggested references, are listed by chapter.

The Gilgamesh Epic begins with what I take to be a description of "the historian's job:"

"All things he saw, even to the ends of the earth
He underwent all, learned to know all,
He peered through all secrets,
Through wisdom's mantle that veileth all.
What was hidden he saw,
What was covered he undid;
Of times before the stormflood he brought report.
He went on a long far way,
Giving himself toil and distress;
Wrote then on a stone-tablet the whole of his labour.
He built the walls of ramparted Uruk,
He laid the foundations, steadfast as bronze,
Of holy Eanna, the pure temple . . ."[1]

The historian's job was bigger then.

I take it as a challenge; I like to think that the text which follows is coherent in this respect: what is gathered leads not just to writings, but equally to walls and foundations.

By way of introducing the person behind this type face, I might say a few words for myself. My involvement in American Dwelling has been quite active for a full 25 years: the primary places of "standing" have been around: Blind River, Ontario; Lombard, Illinois; Portland, Oregon; and Boston. The "roads" have led through most every Territory, Province, and State of Canada, and north and western United States. A few weeks in each of Paris, Munich, and England, comprise my "foreign" explorations.

A seminar titled "American Dwelling" was organized by myself and Julian Smith (M.Arch. 1976), and offered

[1] In L. Cohn-Haft, Source Readings in Ancient History, V. 1, p. 31

as a graduate architectural history course[2] during the
p. 202 Fall 1974 semester. The preparation for, and work accomplished in that seminar, is the hidden foundation of this paper. The shared understandings and excitement that grew out of that group enterprise, remains.

[2] 4.699, under the sponsorship of Professor Stanford Anderson. The course description is reprinted following the bibliography.

"I take SPACE to be the central fact to man born in America, from Folsom cave to now. I spell it large because it comes large here. Large, and without mercy.

It is geography at botton, a hell of wide land from the beginning. That made the first American story (Parkman's): exploration.

Something else than a streach of earth - seas on both sides, no barriers to contain as restless a thing as Western man was becoming in Columbus' day. That made Melville's story (part of it).

PLUS a harshness we still perpetuate, a sun like a tomahawk, small earthquakes but big tornadoes and hurrikans, a river north and south in the middle of the land running out the blood.

The fulcrum of America is the Plains, half sea half land, a high sun as metal and abdurate as the iron horizon, and a man's job to square the circle.

Some men ride on such space, others have to fasten themselves like a tent stake to survive. As I see it Poe dug in and Melville mounted. They are the alternatives.

Americans still fancy themselves such democrats. But their triumphs are of the machine. It is the only master of space the average person ever knows, oxwheel to piston, muscle to jet. It gives trajectory.

To Melville it was not the will to be free but the will to overwhelm nature that lies at the bottom of us as individuals and a people. Ahab is no democrat. Moby-Dick, antagonist, is only king of natural force, resource."

Charles Olson, Call Me Ishael, pp. 11-12.

GEOLOGICAL FORMATIONS

"an actual earth of value"
-Charles Olson

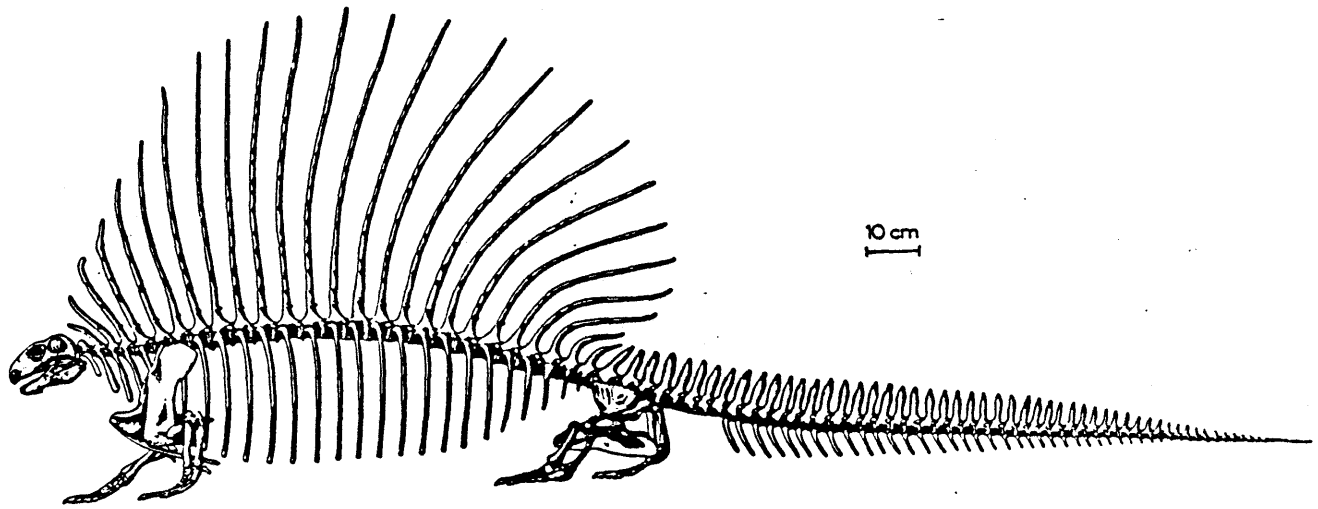
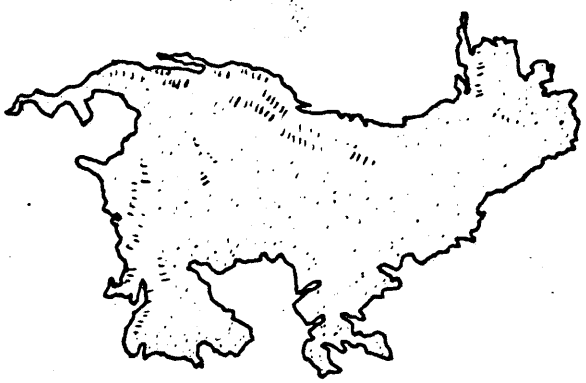


Fig. 2. *Edaphosaurus* sp. Reconstruction of the skeleton (after Romer and Price, 1940). HALLAM p. 119

Sometime following Melville's epic sea voyage around Cape Horn and into the oriental Pacific, yet sometime before Man's first step on the moon, somewhere in that span of a hundred years a large rock (a boulder of granite, to be precise) was discovered. Or shall we say 'uncovered,' to give credit to the archeologists? No, let's say it was 'unearthed' thanks to Gaea.

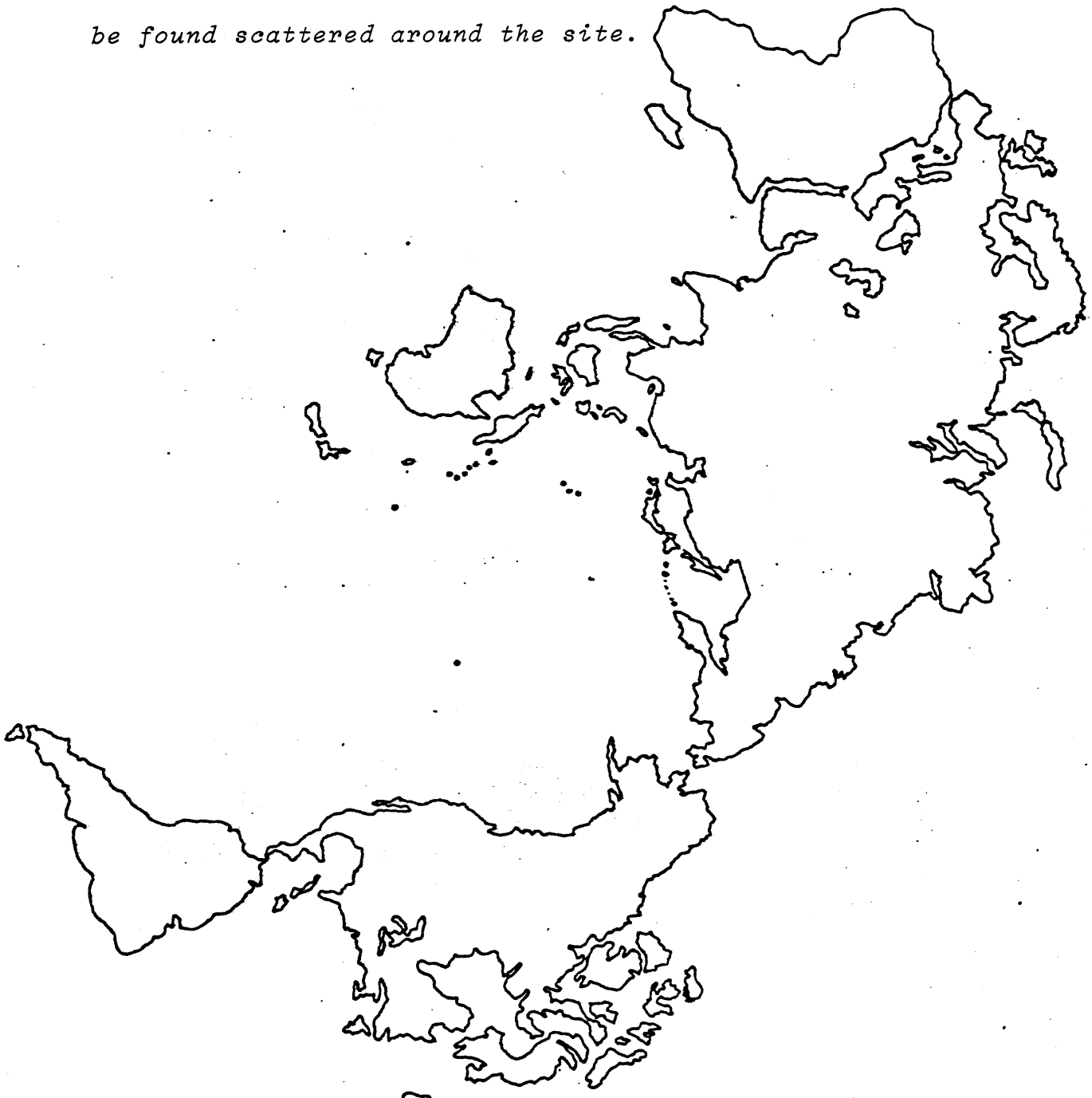
It is a rock rich in form. It has small and large projections, and is even a bit three dimensional if felt in the hand. In fact, it is quite crystalline in the sense that there seems to be a geometry underlying the whole thing. Though it would not be a very scientific observation, its overall form is very much like that of an animal seen in profile: there is a massive body, two legs, a head, and a tail.

If we didn't know better, we would probably assume that some cave-man had carved the thing. A rather astounding fact is that this rock has been in continuous human possession for 50-100,000 years.



Recent air reconaissance has allowed rather accurate surveying and mapping of the area around the rock. The larger context shows that there is another triangular shaped rock about the same size as the 'animal,' which just touches its tail. There is also a rock of extremely complex form which is several times the size of the

'animal,' which comes close to its head. In adition, there are small fragments, like chips of the rock, to be found scattered around the site.



It should not be necessary to point out that these rocks are surrounded by water, and that this 'animal' is more commonly called 'North America.'

Yes! the continent: call it Turtle Island, call it America. A continuous piece of land caught between
p. 100 *two seas. Two large mountain systems on either end and a massive river draining the plains between. These mountain ranges and water edges create the first American building.*

I take as FACT: the land is BUILT, has its built-in geometry and forms. Human building takes place within this larger building. My thesis is: that the building is sacred. Our place on earth is as mortals; our tenure on earth is limited - yet the earth will go on building. If the earth is our home, then we must keep house — ("Earth-House-Hold" equals ecology, see G. Snyder).

Is it any surprise when a people names themself
p. 47 *after a piece of it: Massa-wadchues-et ("big-mountains-place"). More essential, they say the first Man was actually, himself, built up of the stuff:*

> *"Cautantowwit made one man and woman of a stone, which disliking, he broke them in pieces, and made another man and woman of a tree, which were the fountains of all mankind." (Winslow, Key, p. 228)*

That human culture is but another kind of cultivation, is suggested in the tree.

And what does BUILD mean? The etymologies trace it
p. 209 *back to the Indo-European root bheu- , meaning "to be,*

exist, grow." From this same root come the familiar words: "be," "neighbor," "beam," "baum," "puff," and "bud." Does not the essence of building lie within all these words?

"First there was the land." This has been pointed out several times as the base of American building.[1] *It is true, of course: if we wish to speak about American building, why not start with the land. It has been here long before any of us. In this sense it is the stationary setting for the cultures which sit upon it. It is the ground upon which we and the wall footings stand; it is to the ground that we and the walls will ultimately return. Yet as we shall see, it also is BUILDING.*

A "geologist" is one who speaks of the earth. "Gaea" was the Greek goddess of the earth (the first of their gods) who bore and married Uranus, and became the mother of the Titans, the Furies, and the Cyclopes. "Logos" is the Greek word for 'word,' 'reason,' or 'account.' If we are to know American building, let us be geologists, first.

[1] B. Bush-Brown, American Architecture, Louis Sullivan, Kindergarten Chats, Frank Lloyd Wright, The Future of Architecture.

The basic building blocks of the earth are rocks. A section through the globe shows that there is a continuous rock face with many intricate changes in level. If in the section one ignores the smaller variations, it can be seen that the rocks are basically organized at one of two different levels. A graph of the percent of rock face at any given elevation, taken for the entire globe, shows this.

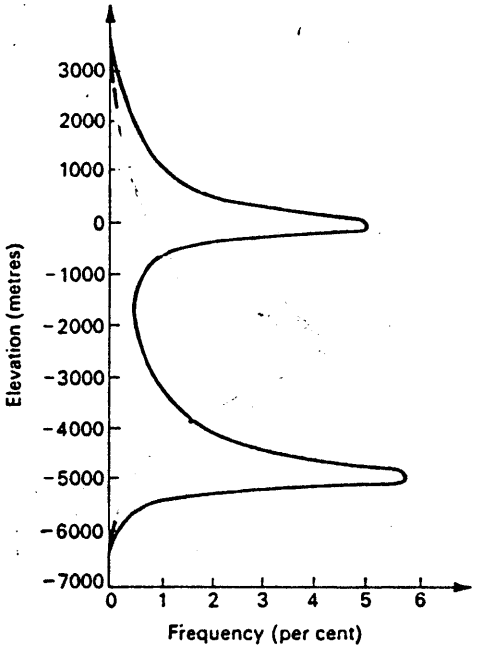


FIG. 4. The two maxima in the frequency distribution of elevations of the Earth's surface. After Wegener 1929, Fig. 8. HALLAM p. 13

Most rock is gathered around two different heights: 7,997 miles and 8,000 miles from the center. As it turns out, the upper level corresponds approximately to sea level (which we humans use as our zero level) and the

lower level represents the average elevation of the ocean floor. The earth, then, is organized basically as a two level system.

Geologists find that the two levels tend to each be built of different material. Beneath a zone of superficial sediments, the ocean floor is principally a basaltic type rock. Basalt is an igneous rock formed of molten lava which escapes from the deeper mantel and cools at or just below the earth's surface. It is the rock which erupts from volcanoes, both on the continent and on the ocean floor. Essentially, the whole of the ocean floor is made of this.

At the continental level one finds an underlying layer (Precambrian Shield) of a granitic type rock. This is also an igneous rock, formed directly from a molten lava, but of a different chemical composition than basalt.

Seismic analysis of reflected shock waves (especially their calculated speed) indicates that the basalt of the ocean floor is several kilometers thick. However, there is a sharp discontinuity between this and the mantel which underlies it. Geologists generally believe that the oceanic floor-layer of basalt is floating on a liquid mantel, and moving horizontally like a conveyor belt.

If one looks at the globe as a whole it is found

that there are strongly linear regions of earthquake and volcanic activity. These zones are believed to define the edges of plates of basalt. From an oceanic floor "ridge" the basalt is extruded in both directions perpendicular to the axis of the ridge. This then rides on the surface of the mantel for some distance and then returns into the mantel at an oceanic floor "valley." The other edges of the plate at which basalt is neither created nor consumed, are called transform faults. In actuality the edges tend to be complex assemblages of valleys and transform faults or of ridges and transform faults.

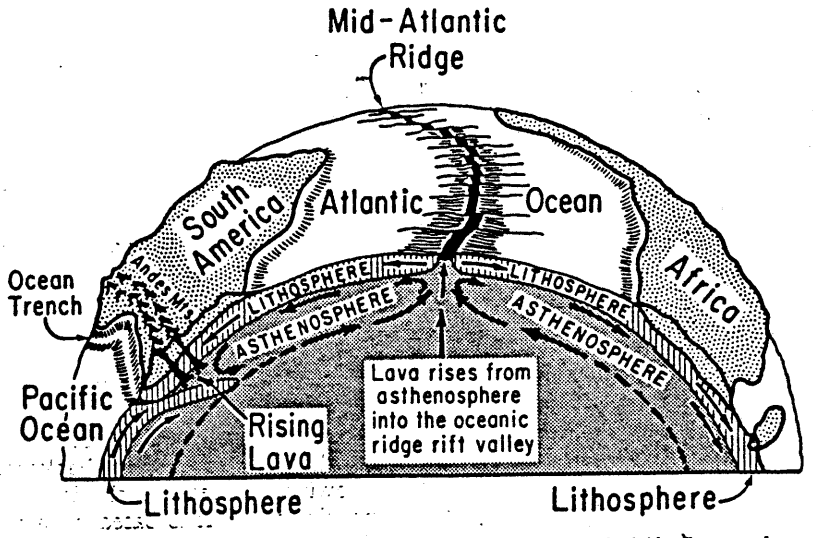


FIG. 1—Schematic representation of seafloor spreading and continental drift. Large plates of lithosphere containing continents migrate away from midoceanic ridges as if on a conveyor belt, and plates are carried into earth's interior along boundaries where plates collide. KAHLE p.6

Volcanism and earthquake activity are the everyday

indications of the kinetic nature of these plates. The driving mechanization for ocean floor spreading is unknown, though it is most likely some combination of gravitational and thermal forces.

The granitic contental rocks are lighter than the basaltic ocean floor rocks. Therefore the continents p. 192 ride up on top, moving in which ever direction the basalt plate goes. It is believed that the volume of continents on the globe has been constant: that it was former in total, during some earlier geologic phenomenon.

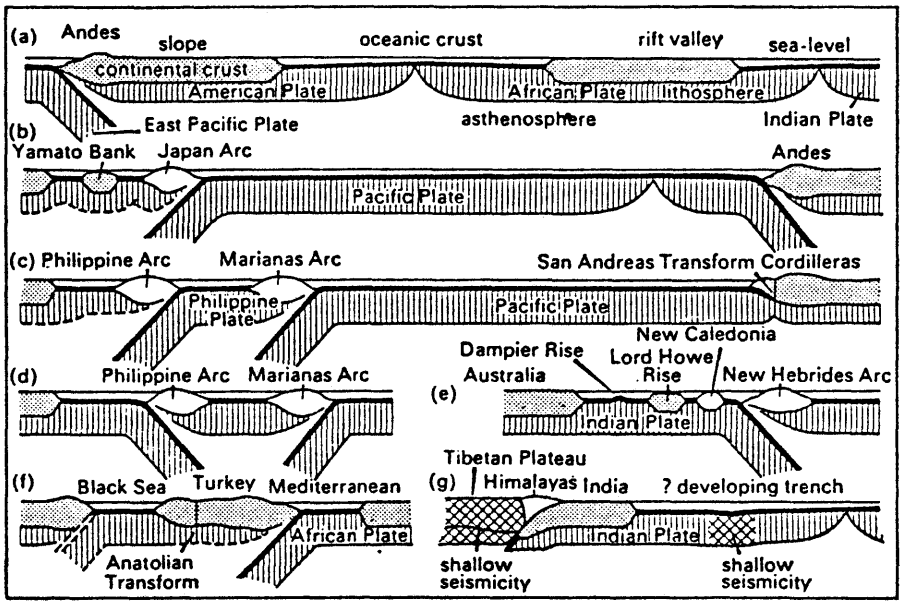


FIG. 36. Schematic sections showing plate, ocean, continent, and island-arc relationship. After Dewey and Bird 1970, Fig. 2. HALLAM p.87

Continental mountain ranges are principally constructed from the collisions between the floating continents, or

by their running off one basalt plate onto another. Thus, mountain ranges tell the story of past movements of continents and plates. The direction and heights of the ranges indicates the orientation of continents one to the other, and their speed and momentum.

Although the oldest reliably dated rocks from several continental shield areas are about 3400 million years old, for plate tectonic purposes knowledge goes back only to the "Precambrian," or pre 600 m.y. Using that information a reconstruction of continental locations for 570 m.y. ago indicates that there was primarily one large land mass. However, it contained several mountain ranges within, suggesting that there were previous discontinuities.

By 500 m.y. the giant land mass had broken up into four major continents. Around 300 m.y. ago several of the continents began aggregating and by 250 m.y. ago there was again principally only one large land mass (a sucession of these joinings formed the Appalachian Mountains).

Around 200 m.y. ago this had divided into two continents. One continent contained that land that now forms South America, Africa, Antarctica, and Australia. The other continent contained the lands that we now call

Europe, Greenland, and North America. Geologists and poets[2] have called the first continent "Gondwanaland" (though "Gondwana" would be more correct, as it means 'land' in India). The second is called "Laurasia," - referring to the Canadian and Scottish shield rocks, and "Asia." The sea which intruded from the east (part way into what is now the Mediterranean) was called

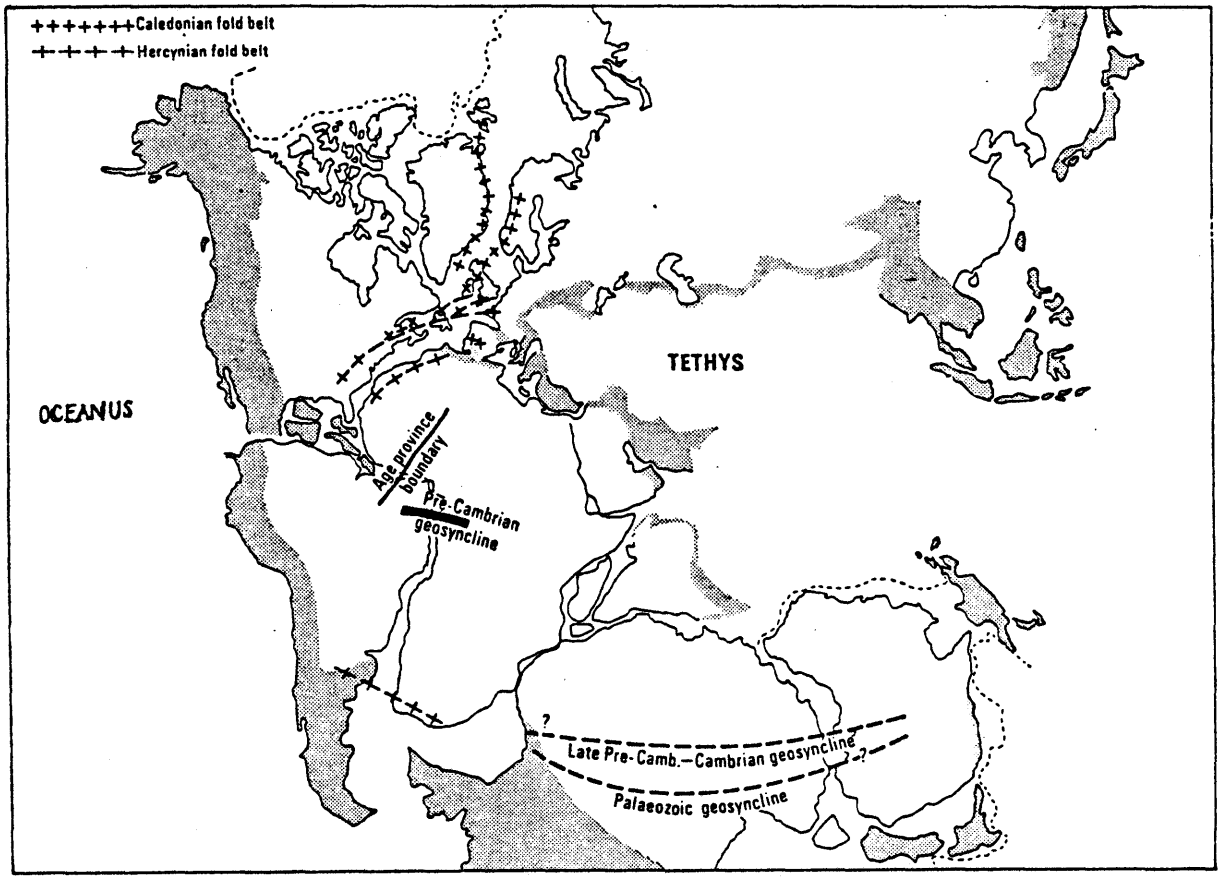


FIG. 34. Reconstruction of Pangaea in Triassic times based on Smith and Briden reconstruction. The stippling indicates areas affected by Tertiary deformation whose exact position is in consequence uncertain. For coordinates see Fig. 35.
HALLAM P. 79.

"Thethys." The ocean which bordered the harder western

[2]Charles Olson, see cover of Maximus IV, V, VI.

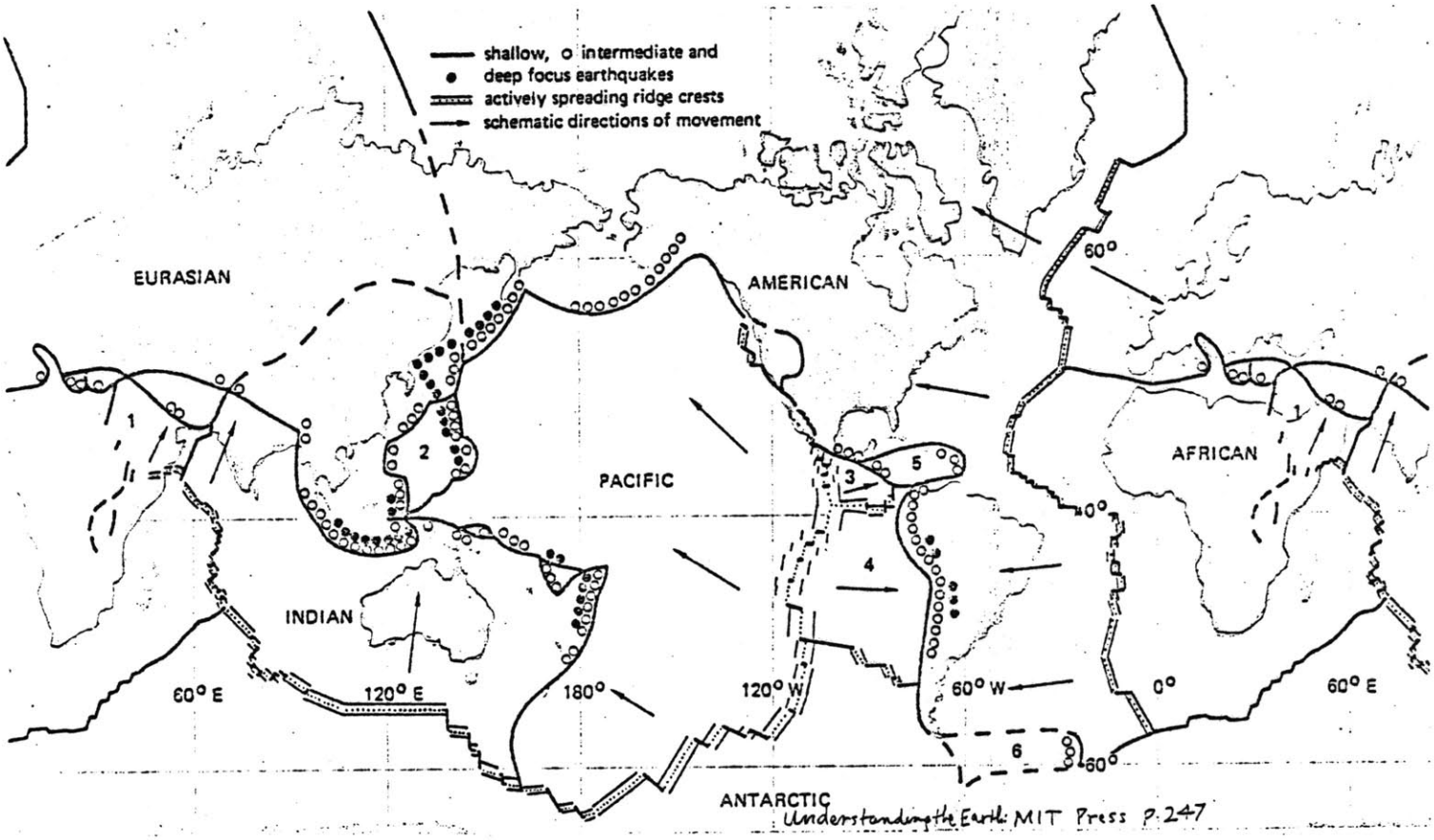
shore of the two continents was called "Oceanus." We recall both, "Tethys" the female and "Oceanus" the male, the titan offspring of "Gaea."

Laurasia then began to break apart. Beginning in what is now the southern North-Atlantic,

> "north-western Africa began to move away from North America during the early Jurassic (190 m.y.). The zone of spreading moved progressively to the north and south. Africa and South America began to separate in the Middle Cretaceous (100 m.y.) and Europe and North America started to move apart at about the same time. The opening of the North Atlantic appears to have been accomplished in several phases. Following the early separation of Africa from North America, Europe and Greenland broke away from Labrador in the late Cretaceous (80 m.y.) and the newly created Labrador Sea for a time formed the northern extension of the Atlantic. At 60 m.y. ago, approximately at the beginning of the Tertiary, the Rockall Plateau split off from Greenland, and from that time until the Middle Eocene both the Labrador Sea and the North Atlantic between Europe and Greenland continued to widen. After the Middle Eocene (c. 47 m.y. ago), spreading ceased in the Labrador Sea but continued in the North Atlantic." (Hallam, p. 82)

Similarly dramatic legends underly the movement of Australia, the collision of two continents that built (and is still building) the Himalayan Mountains, or the opening of the Indian Ocean. Speeds have ranged from the extraordinarily fast movement of India northward from Antarctica at 18 cm. per year for a duration of 20 million years during the Tertiary, to the 2 cm. per year rate we are presently moving westward with respect to Europe.

A plate tectonic map of the world shows that there are presently six major plates and six minor plates that can be identified. It is worth noting that North and South



America are shown as sitting on one plate, along with Greenland, half of Iceland, and part of Siberia. The expanding ridge of extruded basalt is shown midway between the Americas and Europe/Africa.

A reconstruction of the meeting of North America with Europe/Africa is shown. (p.27) One finds Boston a few miles from Marrakesh. North America's eastern seaboard is parallel to the ridge which separated America

from Europe/Africa. The North American coast is just as linear at its edge as is the ridge which broke it from the

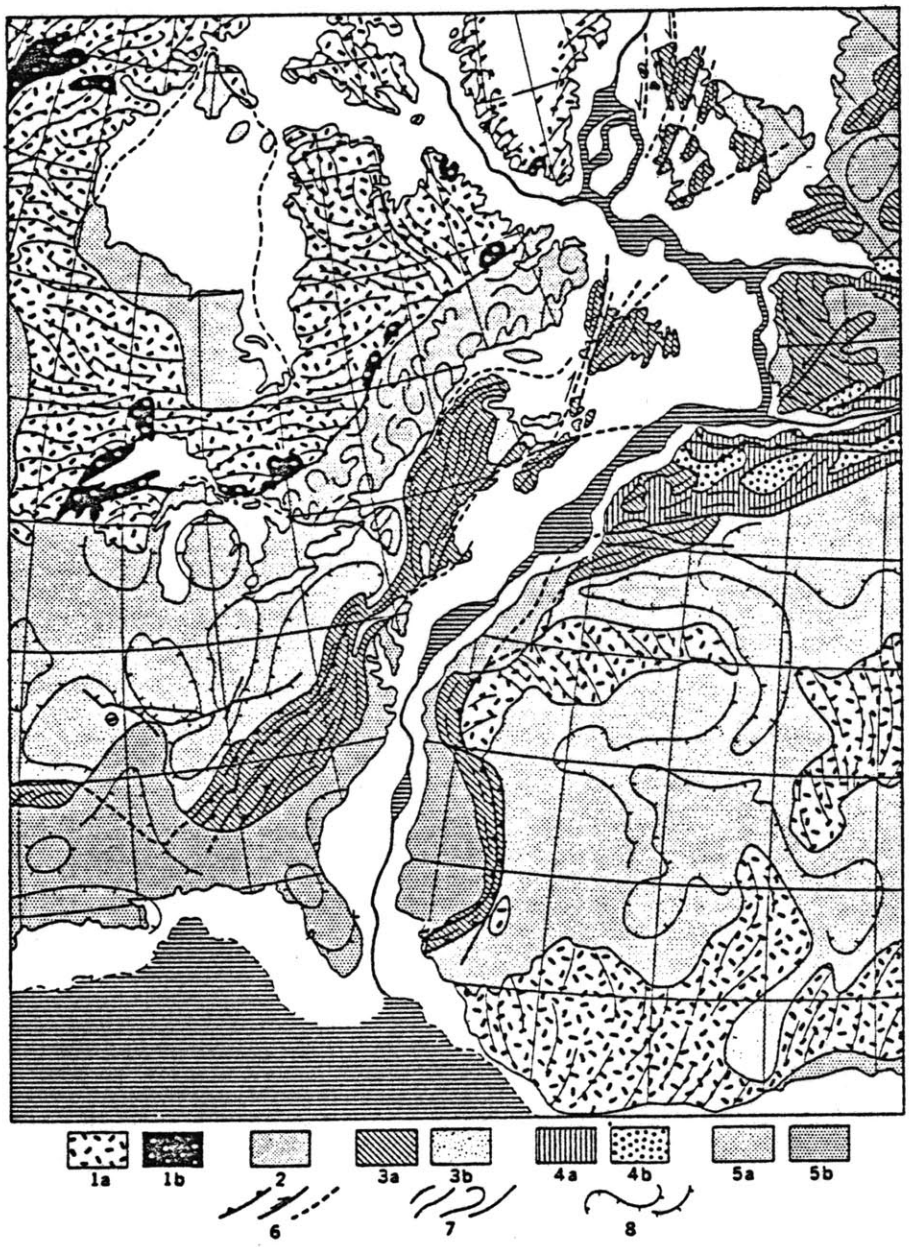


Fig. 12. Generalized tectonic map of the continents on opposite sides of the Atlantic Ocean, plotted on the reconstruction by Bullard and co-workers (1965) (compare Fig. 1). Compiled from Tectonic Map of North America (King, 1969), Tectonic Map of Europe (Commission for the Geological Map of the World, 1962), Sougy (1962), and other sources. 1a, early Precambrian foldbelts; 1b, their postorogenic deposits. 2, late Precambrian (Grenville)

JOHNSON p.104

mother continent. The North American direction of movement is perpendicular to the ridge, or approximately NNW. (note: geometry on a sphere is not shown well in the Mercator projection). The North American "West Coast" is shown as a transform fault; there basalt is neither added nor taken away. Thus some of the American continent has slipped off the American plate onto the Pacific plate. This tends to form a differential in speed which exhibits itself in the San Andres Fault.

It also should be noted that Northern California, Oregon, Washington, and southern British Columbia appear geologically to be in some kind of alliance. One can't help but suspect that they may be seceding from the Union as a matter of course.

The eastern edge of the North American continent, in its directional and linear characteristics, is independent of the Appalachian Mountains which are just in from that edge. As was pointed out earlier, mountain building is dependent on continental collision, whereas the splitting apart is dependent on the formation of a new ocean floor ridge. This is in opposition to the West Coast of North America at which mountains have been built as a result of the Westward movement of the continent up against the Pacific plate.

In conclusion, then, one sees that the eastern coast of North America is geologically similar to that of Western Europe and Africa, because they were once joined. Their mountain ranges were built in pairs at the time of joining. On the west coast of North America one finds geologically very young lands, which in their character are similar to those of eastern Asia and other land masses boardering on the Pacific plate.

Thus geologically, the Boston area is closer to Paris than to Portland. And in turn, Portland is closer to Hong Kong and Hokaido than to Boston.

Does this summary of recent geologic knowledge - spelt out as it is, in tectonic terms - still seem unrelated to the Architecture?

When it comes to human building, there is no need to try to build a new mountain range - or dig a new grand canyon. There are two ways to use the material we have presented: 1) the continent, as a "large building" is inhabited and used in ways similar to that of our smaller buildings; we can identify the large scale forms of organization and where appropriate, use them in our smaller buildings, or 2) we can look at the materials and structure of the building, and where appropriate, assemble our

buildings in similar ways.

NORTH EAST AS LARGE INHABITED BUILDING: the site is physically defined by its primary routes of movement - its river systems. First inhabitation tends to come by these systems. Major towns develop at the "fall lines" (beyond which ocean-going ships could not pass). Fur trade(rs) enlarged the territory by canoe, and of course more permanent settlement found place soon in this territory.[1]

Inversely, one can look at the mountain systems that force the waters of the continuously flowing rivers, in the directions and distribution (tributaries) that they do. In this respect, one finds the area dominated by three parallel mountain ranges (Appalachian, Green, and White mountains created in roughly the same geologic era) being broken by another mountain range (Adirondack mountains formed earlier).

The native American Indians settled around these geographic features. Thus, for example, the Iroquois inhabit the more mountainous areas, and the Algonkians

[1]The river form can be used as an illustrative definition of the fundamental difference between the settlement patterns of the of the north-east, and south-east coasts. See H. Barrows, Lectures on the Historical Geography of the United States.

are seen to inhabit the low-lands around them.

EAST COAST CONTINENTAL TECTONICS: if we are really willing to grant that the continent is a large masonry building, then there should be some lessons to be learned from its form of construction. Three possibilities come to mind: 1) use of materials, 2) forms of edges and reciprocity, and 3) mountains as habitable walls. I will give the gist of how each of these might be developed.

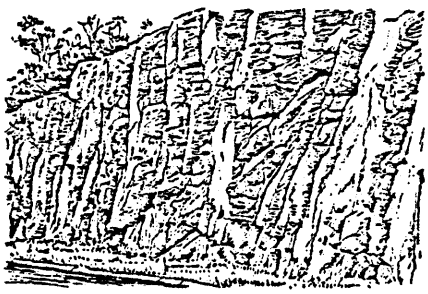
1) *In general, granite sits on basalt. Occasionally the basalt intrudes as a volcanoe. We might use this as a way of working with unit masonry and poured concrete: the unit masonry would tend to sit on the poured foundations, except that in extraordinary cases the poured concrete would get up into the air.*
2) *The edge of one continent is reciprocal with the other continent from which it has split. This kind of reciprocity might be used for continuity between smaller buildings.*
3) *The mountain ranges tend to be independent of the edges. As such, they are habitable on both sides. They create degrees of privacy, much as walls can, within a room.*

CONCLUSION: if the above is too sketchy, there is a more direct continuity to our smaller, human size built form. All we need to do is look to quarry operations, - to where the granite blocks are gotten into shape for use in foundations and lintels.

There is a quality of granitic (continental-bed) rocks to break apart in a relatively consistent geometry. On a south-facing cliff (glaciers advance from the north, and round off north facing projections), or where a super-highway or river has cut through bedrock, one can usually see several common directions to the flat exposed surfaces.

FIG. 23–25.
JOINTED GRANITE. Dedham, Massachusetts. Road cut.

Shimer p. 150



There are often many different sizes of faces, projecting in and out of the larger face of the exposed rock; so that at first one just imagines that it is a 'randomly' broken and chewed apart 'stuff.' But on close examination, in the case of granite, one finds the faces tending to lie within a geometry. No, these faces were not cut by hundreds of workers with diamond saws; all this order is

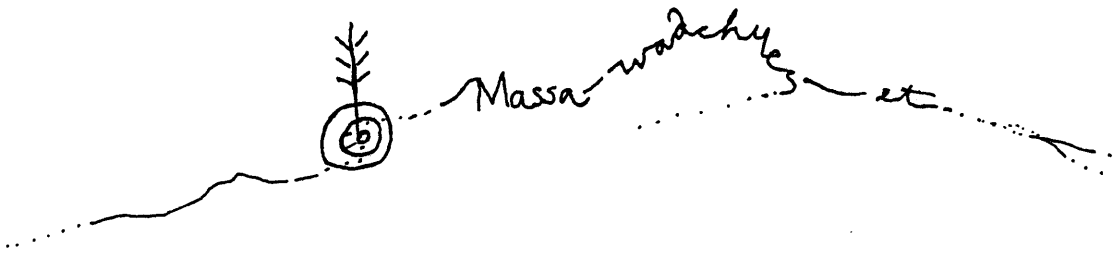
within the rock, waiting for dynamite or ice to blast it into exposure.

This quality of rocks to potentially break apart within a geometry (though, of course, it is not totally consistent), is called "jointing."[2] Sedimentary rocks have the horizontal layering that we accord to the different physical content of each decade's sediment. But the jointing in granitic rocks is three dimensional: one finds the geometry working in both section and plan. This innate structuring in granite is of common knowledge to quarry operators, as it makes the work of quarrying go easier and faster, while producing finer pieces.

The extraordinary thing is that jointing geometry is in congruence with the larger mountain-chain directions; in other words, the faces of the broken granite blocks are parallel to the edges of previous continental collisions. p.193 The natural geometry of the granite block, of the local valley, and of the mountain range as a whole, thus sing of the same phenomenon - a living earth: human built masonry can work in continuity with this.

[2]See: Shimer, Field Guide to Landform, pp. 150, 151, 196; Bonney, The Work of Rain and Rivers, p. 50.

FIRST INHABITANTS

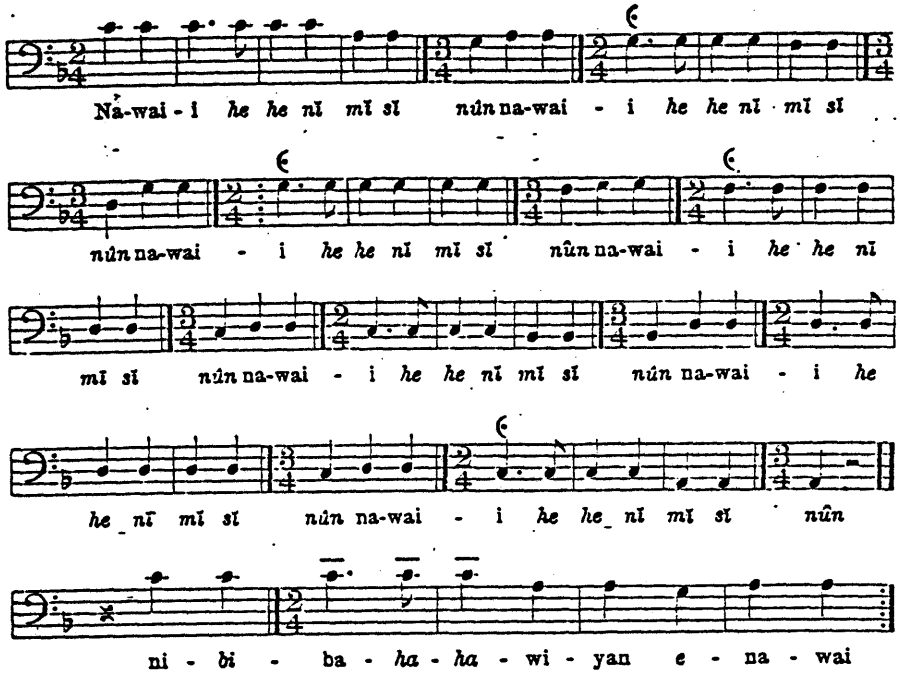


SONG PICTURE NO. 2. The Mide' pole and stone are shown in the drawing.

No. 2. SONG OF THE MANIDO' (Catalogue no. 238)

Sung by MAIÑ'ĂNS ("LITTLE WOLF")

VOICE ♩ = 152
DRUM ♩ = 152
(Drum-rhythm similar to No. 1)



WORDS

Nawaii'..... On the center of a peninsula
Ni'bawiyăn'..... I am standing

Just about all that we know of the local tribes of Massachusetts Bay is through the eyes of the English colonists and explorers. The fact that these local Indians had undergone a plague of sorts, thirteen years prior to the arrival of the English, followed then with wholesale takeover by the intruders - to the point of relatively complete extinction and/or conversion - within a few years,

makes a problem for anyone wishing to be their historian. Those first colonists, fishermen, and explorers tended not to be interested in recording the ethnography of a dying race.

In fact, Western culture did not develop "ethnography" into the science of anthropology we know today, until after the mid-1800's, with the landmark works of Lewis Henry Morgan and E.B. Taylor. So the few and far between references to the "Indians," made by the English "discoverers" might be described as falling into two other categories. First, there is information that might be of future use to the larger English venture of "Planting" a Colony; and second, there is information in the form of facts and observations that were of some immediate interest or curiosity to its writer.

The former descriptions tend to be political; they discuss the temperments of the different Indian sagamores[1] ("kings"), gives sizes of the tribes, advice on whether the Indians should be admitted into houses, suggest how to pay them for their land, or consider how well their Christianization is succeeding. These writings portray the shattering of a long existent culture; we learn principally about the invaders.

[1]I will use a convention of underlining all American Indian words when they are being considered etymologically.

The latter descriptions, - the lively writings of sleeping in a wigwam crowded six into the Chief's bed, "with himself and his wife, they at one end and we at the other" of the "hellish noise" they made trying to cure the dying sagamore Massasoit, of how they fished with a weir - these are things of interest. The problem is, of course, that they do not add up to a whole; they are bits and pieces of what was most interesting to the watcher (a priori, excluding what the Indians might not do in his presence), and of that, only what he had time to write down remains (probably at the dinner table there were more detailed descriptions). There may have been the additional problem in many cases, of who to write these kind of curiosities to and why.

In 1651, Reverend John Eliot began organizing the "Praying Towns" with Natick. This submerged what little Indian life was remaining. The final product, as if wrung out of those last few Indians, is a Natick dictionary,[2] resultant from Eliot's translation of the Bible into their language.

The end result is that there is not enough material in these writings to create an ethnography; we cannot reconstruct from those few words, the life and inhabitations of the Indians of Massachusetts Bay on the eve of European

[2] Compiled and published by J.H. Trumbull: Natick Dictionary, 1903.

invasion.

Perhaps there is some justice in this. I mean to pose the question: can an ethnography "reconstruct" a people? Some anthropologists might admit, even suggest that the ethnographic approach has its limitations,[3] but it is clear that on the whole the assumption is that the answer is more favorable than unfavorable.

The ethnographies themselves, surprisingly, give some evidence to the contrary. Among others of the Algonkian Indians - a language grouping of which the Massachusetts Bay Indians are designated members - ethnographers do bring up the Indians histories of themselves. For example, an Ojibway Indian related part of the history of his tribe (this is traditionally contained in verbal and physical ceremonies of their Midewiwin Grand Medicine Society), as follows:

> "While our forefathers were living on the great salt water toward the rising sun, the great Megis (sea shell) showed itself above the surface of the great water, and the rays of the sun for a long period were reflected from its glossy back. It gave warmth and light to the An-ish-in-aub-ag (red race). All at once it sank into the deep, and for a time our ancesters were not blessed with its light. It rose to the surface and appeared again on the great river which drains the waters of the Great Lakes, and again for a long time it gave life to our forefathers, and reflected back the rays of the sun. Again it disappeared from sight and it rose not till it appeared to the eyes of the An-ish-in-aub-ag on the shores of the first great lake. Again it sank from sight, and death daily visited the

[3]See E.T. Hall, Beyond Culture; Margaret Mead, World Enough: Rethinking the Future; Edward Carpenter, Oh What a Blow That Phantom Gave Me.

wigwams of our forefathers till it showed its back and reflected the rays of the sun once more at Bow-e-ting (Sault Ste. Marie). Here it remained for a long time, but once more, and for the last time, it disappeared, and the An-ish-in-aub-ag was left in darkness and misery till it floated and once more showed its bright back at Mo-ning-wun-a-kaun-ing (La Pointe Island), where it has ever since reflected back the rays of the sun, and blessed our ancesters with life, light, and wisdom. Its rays reach the remotest village of the widespread Ojibways.'

As the old man delivered this talk he continued to display the shell, which he represented as the emblem of the great megis of which he was speaking.

A few days later, anxious to learn the true meaning of this allegory, ... I requested him to explain to me the meaning of his Me-da-we harangue.

After filling his pipe and smoking of the tobacco I had presented he proceeded to give me the desired information as follows:

'My grandson,' said he, 'the megis I spoke of, means the Me-da-we religion. Our forefathers, many strings of lives ago, lived on the shores of the Great Salt Water in the east. Here it was, that while congregated in a great town, and while they were suffering the ravages of sickness and death, the Great Spirit, at the intercession of Man-ab-o-sho, the great common uncle of the An-ish-in-aub-ag, granted them this rite wherewith life is restored and prolonged. Our forefathers moved from the shores of the great water, and proceeded westward. The Me-da-we lodge was pulled down and it was not again erected, till our forefathers again took a stand on the shores of the great river near where Me-ne-aung (Montreal) now stands.

'In the course of time this town was again deserted, and our forefathers still proceeding westward, lit not their fires till they reached the shores of Lake Huron, where again the rites of the Me-da-we were practiced.

"Again these rites were forgotten, and the Me-da-we lodge was not built till the Ojibways found themselves congregated at Bow-e-ting (outlet of Lake Superior), where it remained for many winters. Still the Ojibways moved westward, and for the last time the Me-da-we lodge was erected on the Island of La Pointe, and here, long before the pale face appeared among them, it was practiced in its purest and most original form. Many of our fathers lived the full term of life granted to mankind by the Great Spirit, and the forms of many

> old people were mingled with each rising generation. This, my grandson, is the meaning of the words you did not understand; they have been repeated to us by our fathers for many generations. (Densmore Chippewa Customs, p. 8-9)

We notice that according to their own history they do not designate themselves by any specific territory, place, or time. Mention of several places, - "on the great salt water," "on the great river," "on the shores of the first great lake," "at Mo-ning-wun-akaun-ing" - is made; and an ordering of those places of dwelling indicates the passage of several periods of time. But they, the Ojibway, continue their existence in spite of those changes. Or rather, for the life of the Ojibway to be continuous and ongoing requires that they not settle in one place; rather they must follow the great Megis (Me-da-we).

Indication that "following the great Megis," - the journey between dwellings - need not necessarily involve physical change of locations, is shown in the following description of a ceremony passed from the Algonkian tribe (in the area of the Ojibway) to an Iroquois tribe, the Huron.

> "Only one calendric ceremoney, in insure successful fishing, is mentioned by the Jesuits. In the spring, two young, virgin girls (in at least one case these were about 6 or 7 years old in order to insure they were virgins) were married to the Seine. At this feast, the Seine was placed between the two girls and told to

> catch many fish ... This ceremony was introduced into Huronia by some neighboring Algonquin, the latter having gone to fish some years before and having caught nothing. Surprised and astonished at this unusual event, they did not know what to think. Then the oki (i.e. spirit) of the Seine appeared to them as a tall, well-formed man, who said, "I have lost my wife, and I cannot find one who has not known other men before me; that is the reason why you do not succeed, and you never will succeed until I have been given satisfaction in this respect." The Algonquins then held a council and decided that to appease the Seine they should present him with girls so young he would have no reason to complain and that they should give him two for one. This done, the fishing succeeded." (Tooker, Chippewa Child Life, pp. 79-80)

Thus we find that the ceremony of the Me-da-we has undergone a great change; the light of life reflected from the great Megis has gone away, and then returned in the same place. The Huron Indians, of Iroquoian stock, has a structure similar enough to that of the Me-da-we, to accept this Algonkian ceremony into it. And the fact that they do so, indicates again its nature of change.

The practical reason for much of this, is that the Algonkian (also the Iroquois) speaking peoples tended to be part-time hunters, gathers, fishermen, and farmers. Their territories and selves are well defined by their neighbors, until there is famine or plague among one or the other of them. So, in the above case a ceremony was acquired in an attempt to find a way of appeasing whatever spirit was preventing success in their fishing. If it had failed, we expect they would have tried to

communicate with the spirit again leading to perhaps another ceremony or perhaps change of location.

In this respect, then, there is an appropriateness in our lacking complete information of the Indian ceremonies, daily life, and buildings: their life by its basic nature was one that could not be tied to one place or time. So we are restrained from tying it to Massachusetts Bay, 1630.

The advantage, if we take the foregoing discussion in seriousness, is that we leave the Indians alive. Their survival depended upon their mobility - an ability to change - and so we might not try to tie them down in our attempt to understand them. We take it for granted that they will slip through our fingers in the process.

So in what follows, my aim is to discuss their culture in terms of what might be potentially useful to myself, and perhaps any others that might be of the same tribe as I. I want to let them live if possible - let them show their ways of looking at and using the land, that we might appropriate a ceremony or passing connection for use now, 1976.

In 1624, Edward Winslow, governor of Plymouth Plantation in its fourth year, annexed to his "Narrative

of the Plantation," a short "Account of the Natives of New England" (Morton, p. 486). After apologizing for a previous letter to England in which he had said the Natives have no God, he gives his more current understanding to be:

> "they conceive of many divine powers so of one, whom they call Kiehtan to be the principle maker of all the rest; and to be made by none. He they say, created the heavens, earth, sea, and all creatures contained therein. Also that he made one man and one woman, of whom they and we&all mankind came; but how they became so far dispersed, that they know not. At first they say there was no sachem or king, but Kiehtan, who dwelleth above the heavens, whither all good men go when they die, to see their friends, and have their fill of all things. This his habitation lieth westward in the heavens ... He has the power to tell bad men to wander in restless want and penury ... Never man saw this Kiehtan, only old men tell them to teach their posterities the same, and tell their children, yea, charge them to teach their posterities the same, and lay the like charge upon them. This power they acknowledge to be good ..."

He goes on to say:

> "They have given me the names of thirty-seven, which I have, all which in their solemn worships they invocate" ... Kautántowwit ... the great South West God ... to whose house all souls go, and from whom came their corn, beans, as they say."

This should be contrasted with another account, by Daniel Gookin, printed around 1662 in his "Historical collections of the Indians of New England." He writes of their religion:

> "Some for their God adore the sun; others, the moon; some, the earth; others, the fire; and like vanities. Yet generally they acknowledge one great supreme

> doer of good; and him they call Woonand, or Mannitt: another, that is the great doer of evil or mischief and him they call Mattand..."

What appears at first glance to be a contradiction among sources, - whether their great God is Kichtan, or Kautántowwit, or Woonand, or Mannitt, or Mattand - is resolved by noting that each of these contains the root an within it. Mr. J. Hammond Trumbull has shown in his paper "On the Algonkin name Manit or Manitou, sometimes translated 'Great Spirit' and 'God'," that:

> "Manitow is formed from Manit by affixing the representatives of the verb-substantive (ou). It means 'Manit is' or 'it is Manit.' The next step in analysis separates the initial M, which is an indefinite and impersonal prefix, from an-it, a participle of the verb an-eu, meaning 'to be more than, to exceed, to surpass'..." (p. lviii)

Thus he points out that the root an-it does not denote necessarily 'spirit' or 'life,' but is also a verb meaning 'gone beyond,' 'corrupt' or 'rotten' (an-it).

An understanding of four of the five names comes with noting that keht- means in composite words: 'chief,' 'principle,' or '(relatively) greatest.' Thus Kautántowwit equals with some change in dialect, Kichtan (with a suffix) and means "greatest of several gods;" Mannitt we recognize as "my god," a noun not brought into existence, not called upon yet (ou lacking); Matta we find in the Natick Dictionary means 'not,' thus suggesting that "the great doer of evil . . . Mattand" is, in fact,

the absence of an-it, the absence of 'going beyond.'

Noting that sowane means 'southward' or 'when it blows,' we find Woonand then meaning those gods of the southwest about which Roger Williams tells us:

> "They have a tradition that to the southwest which they call sowwainiu, the gods chiefly dwell; and hither the souls of all their great and good men and women go." ("Key," p. 233)

Thus, the suffix -owwit of Kautántowwit denotes 'south' - the whole then meaning "the chief of all the gods that dwell in the southwest."

We dwell on this subject, perhaps longer than necessary, to demonstrate two important points. First, that the Indians have some history of themselves which is intimately bound up with their gods. That the home of the greatest of their gods lie in the southwest, and that that is the direction from which comes their corn, suggests a previous homeland in this direction. In turn this suggests that they are a roving peoples like their Ojibway cousins. That this history is "yea, charged" upon them to be passed from generation to generation, indicates the existence of some form of Me-da-we organization.

Second, that the names by which they call their gods tend to be of "things" to which is attached the root an-it- meaning "going beyond," suggests that the "gods" are things or activities which "use" or are "built" of these

materials. Manit might be built of one's self, in ecstasy, hallucination, or dream, i.e. gone beyond. Yatáanit, the fire god, might be a bon-fire, a fire "gone beyond," perhaps to the point of burning their village, as can happen.

It might be noted that the language can distinguish between the god as concept (e.g. manit) and the god being built, used, or called upon (e.g. manitou). This is a language conscious of itself: in the one case talking about one of its names, and in the other case using it. That suggests a duality of sacred and profane times, to make use of this difference.

Winslow lists a good number of their gods. Others include:

> "Keesuckquand (kesuk-anit, sun - gone beyond), a name of the sun, by which they acknowledge the sun, and adore for a god or divine power; Chekesuwand (chekesu, the northwest wind), the Western God; Wompanand (wompan, dawn or daylight), the Eastern God; Wunnanameanit (nanumiyeu, the north; wunnanumau, blessing benefits), the Northern God; Squauanit (squa, woman), the Womens God; Muckquachuckquand (muckquachucks, boy), the Childrens God; Nanepaûshat [nepaus, sun], this word means "moon" and "moons God" [note it seems to lack the an-it root]; Paumpágussit [paumoo, a name of the sea which is found only in compound word; pahkeussu, he is clean, pure] the sea god ... that deity or godhead which they conceive to be in the sea; Yatáanit (yote, fire) the Fire God; Wetuómanit (wetuoom, my house), the house God."

With the arrival of Wetuómanit, we will get right on to the architecture.

The Massachusetts Bay Indians seemed to have two primary words to denote "buildings:" wèk and kõmuk. The first written variously as wetu, wèk, or week is translated in the Natick Dictionary as meaning "a house, tent, or dwelling." It is the prefix in Wetuòmanit. Our English word "wigwam" comes from this root; it is corrupted from the more correct "weekumout" or "wekuwomut," meaning "in his house."

One of the earliest descriptions of the Indian houses is related in "Journal of a Plantation Settled at Plymouth," of houses seen while searching on Cape Cod for a site for their future plantation:

> "The houses were made with long young sapling trees bended, and both ends stuck into the ground. They were made round like unto an arbour, and covered down to the ground with thick and well wrought mats; and the door was not over a yard high, made of a mat to open. The chimney was a wide open hole in the top; for which they had a mat to cover it close when they pleased. One might stand and go upright in them." (Mourt, p. 216)

We get essentially the same description of the houses p. 17 of the Indians at Massa-wadchues-et (big-mountains-place) Bay, from Francis Higginson in his New-Englands Plantation (1630):

"Their houses are very little and homely, being made

> with small poles pricked into the ground, and so blended and fastened at the tops, and on the sides they are matted with boughs and covered on the roof with sedge and old mats; and for their beds that they take their rest on, they have a mat." (p. 257)

Four years later, in 1634, William Wood published a more detailed account in his New Englands Prospect. In Chapter XX titled, "Of their women . . .," he begins:

> "To satisfy the curious eye of women-readers, who otherwise might think their sex forgotten ... [the women are] more excellent, being more loving, pittifull and modest, milde, provident, and laborious than their lazie husbands. Their employments be many: First their building of houses, whose frames are formed like our garden-arbours, something more round, very strong and handsome, covered with close-wrought mats of their owne weaving, which deny entrance to any drop of raine." (p. 105-106)

Once a fire is lit, Wood finds that "they be warmer than our English houses," but they have the disadvantage of being smokey. Getting back to the issue which delights Wood (the women doing the work) he tells us:

> "these poore tectonists are often troubled like snailes to carrie their houses on their backs sometime to fishing-places, other times to hunting-places, after that to a planting place, where it abides the longest." (p. 106)

Wood then goes on to explain how the women "cleare with their Clamme shell-hooes, as if it were a garden rather than a corne-field," harvest the crop, "get Lobsters for their husbands," "bait their [husband's] hooks when they goe a fishing," "gather flagges, of which they make Matts

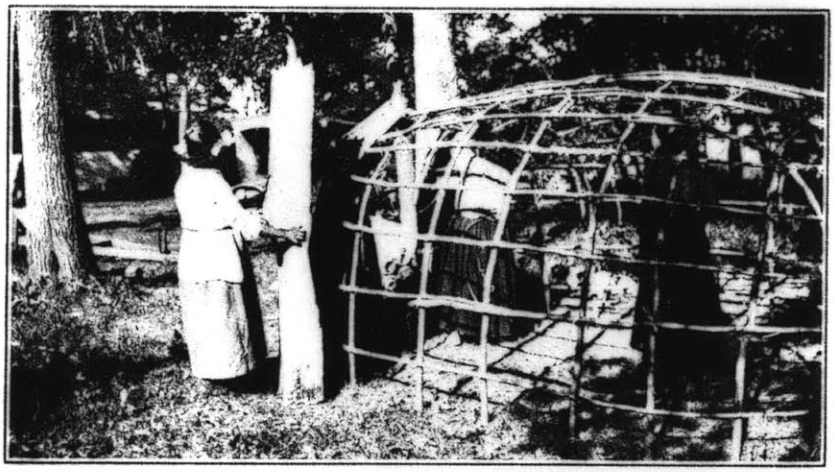
. . . baskets," "trudging to the Clamm bankes," "sew their husbands shoes," carry the children with them while they work "upon a board two foote long and one foote broade,". . . (he continues for a total of five pages).

We will now examine the "wigwamme" (the word coined first, 1634, by Wood) in detail. For an oval wigwam,[4] 12 feet by 10 feet, 18 saplings (mehtugquēs; fr. mehtug, tree) about an inch in diameter are cut. The frame is constructed of three saplings on each side of the long diameter placed about 38 inches apart, and four each side of the short diameter about 14 inches apart. In lower Canada the Ojibway used ironwood saplings; in New England they may have been oak (wesokkūnk; -unk, wood) or ash (monunks). When green, the saplings were pliable; after drying in place they were tough yet elastic.

Construction began with the saplings in the long diameter, their buts being stuck firmly into the ground. From two sides these were brought overhead at the middle, to a height of 5 1/2 feet, and twisted (tatuppineau; from tatuppe-hteau, equal-he makes it) for a one and a half foot overlap. The saplings for the shorter diameter were then implanted and their projecting ends similarly

[4]These details are taken from an Ojibway description in Densmore, Chippewa Customs (p. 23). The Natick words are from the Natick Dictionary.

a. Frame partially completed



b. Woman placing bark in position

c. Wigwam of black ash and birch bark Densmore Chip.C.

WIGWAM IN COURSE OF CONSTRUCTION

overlapped and twisted. The intersections of the framework were then bound (kishpinum; from kuppi, close fast and num, action of the hand). For binding the Ojibway used the inner bark of basswood; the Massachusetts Indians most probably used ash as in their basketmaking, or willow which they call anumwussukuppi (-kuppi, close fast).

Two additional saplings are then bound on each side around the wèk, one 4 feet and the other 7 feet up from the ground along the other saplings. At one end of the framework, an opening is left for a door between the lower horizontal sapling. This completes the framework.

This size would usually house one family. Wood tells us, however, that the size of this framework varies:

> "Their houses are smaller in the Summer, when their families be dispersed, by reason of heate and occasions. In Winter they make some fiftie or threescore foote long, fourtie or fiftie men being inmates under one roofe." (p. 106)

Gookin tells us similarly:

> "These houses they make of several sizes, according to their activity and ability; some twenty, some fourty feet long, and broad. Some I have seen of sixty or a hundred feet long and thirty feet broad." (p. 150)

The framework would tend to be permanent, and they would carry the coverings and furnishings with them. So they might "remove to a hunting house in the end of the year" fifty or sixty miles away to return "home, men, women, and children, through the snow," or "from their summer

fields to warm and thick woody bottoms, where they winter" often in large communal wèk, as a village unit (Williams, "Key," p. 213).

With the different sizes and uses of the wèk, varies its covering. The Natick word uppôhquôs (a tent, its covering) or appuhquósu (he covers) seems related to appu, which means "he remains." Thus the indwelling of the owner within his framework, is expressed by its covering being in place.

The name of the woven mats with which the wèk were covered, is abockquósinash, where abockquo refers to "covering" and sinash refers to "grass" (oskeht, grass).
p. 182 The mats were woven either from a reed called wekinasq (house-grass) or a rush (flagges) called mishashq (misheaskeht, great-grass). Wood says:

> "In Summer they (the women) gather flagges, of which they make Matts for houses, and Hempe and Rushes with dying stuff ... (for) baskets." (p. 107)

But these mat coverings made of bulrush, Gookin tells us, made an inferior, "meaner sort of wigwam,"

> "The best sort of their houses are covered very neatly, tight, and warm, with barks of trees, slipped from their bodies at such seasons when the sap is up; and made into great flakes with pressures of weighty timber, when they are green; and so becoming dry, they will retain a form suitable for the use they prepare them for." (pp. 149-150)

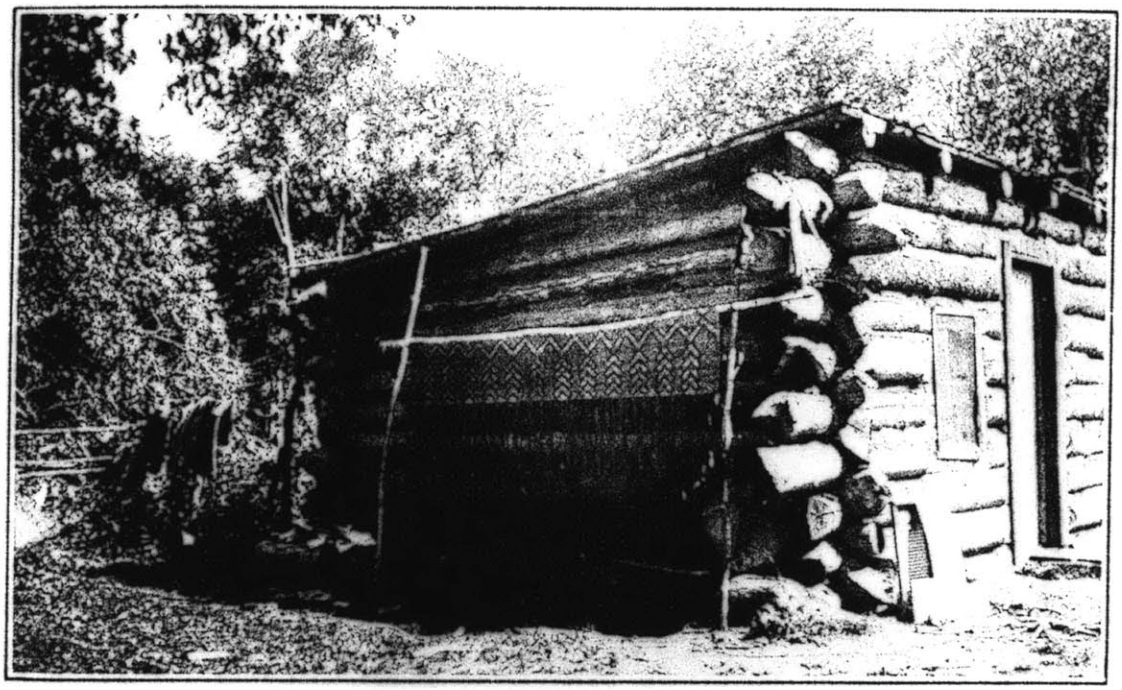
Williams tells us they use "birchen bark and chesnut bark," which is dressed finely and then used to "make

a summer covering for their houses" (p. 211). It is interesting to note that he gives the word wuchickapeuck for these barks, a word having the familiar ending -apeuck, though in this case we are not sure whether it refers to "covering" the tree or the house.

A description of making the reed mats in an Ojibway commumity goes as follows: in the fall "after putting away the wild rice, maple sugar, and other food" in preparation for winter, bulrushes were gathered and dried. The narrative continues:

> "I, as the oldest daughter, boiled basswood bark, and made cord, and grandmother made the bone needles that we would use in weaving the mats. When the rushes were ready, we laid a cord on the ground and measured the right length for the mats. My mother knew just how long they should be to go around the wigwam, and we made five long ones, four of middle size, and two small ones. The long ones were two double-arms' lengths, and the middle-sized ones were about one and a half double-arms' lengths. We laid the rushes two layers deep on the ground with the ends resting on the cord, and then fastened the ends of the rushes to the cord, after which he fastened the cord to the pole that was the upper, horizontal part of the weaving frame."
> (Densmore, Chippewa Customs, pp. 119-120)

This pole going the length of the mat, with rushes hanging from it, was then fastened to two upright poles high enough that the rushes wouldn't touch the ground. The rushes thus formed the "warp" and basswood twine was woven between them as the "weft." Usually the twine was not put on a shuttle, but was "held in a little roll



a, Cedar mat on frame

b, Woman weaving rush mat Densmore Chip. Cust.

in the weaver's left hand, the right hand being used to separate the rushes, preparatory to slipping the twine between them." (p. 155, Densmore)

Continuing the narrative:

> "My grandmother directed everything, and she had a large quantity of the thorns from the thorn-apple tree in a leather bag. She had been gathering these all summer, but she made sure she had plenty. We all three worked hard getting ready for winter. When my mother had finished the bulrush mats she made more mats for the floor, using either fresh reeds or some that she had gathered during the summer, and she made more of the woven-yarn bags in which we kept our belongings." (Densmore, Chippewa Customs, p. 120)

In summary then, the wekinasq abockquósinash were used for floor covering, the mishashq abockquósinash were used for the winter framework covering,[5] and the wuchickapêuck was used for the covering of the framework during summer. We note that the floor mat is the one associated with the wèk, that is, with the house.

A reason for this becomes apparent if we look at the furnishings and everyday use of the wèk. A description given by Mourt is:

> "In the midst of them were four trunches knocked into the ground, and small sticks laid over, on which they hung their pots, and what they had to seeth. Round about the fire they lay on mats, which are their beds." (p. 216)

Wood's description, with some characteristic humor, is:

> "These bee such smoakie dwellings, that when there is

[5]Wall mats are staked to the ground with nepattuhquonk (post, pillar, stake, fr. nēpattau, it stands upright).

> good fires, they are not able to stand upright, but lie all along under the smoake, never using any stooles or chaires, it being as rare to see an Indian sit on a stoole at home, as it is strange to see an English man sit on his heeles abroad." (p. 106)

The fire on the floor gives warmth to those who sit next to it on the mat; the smoke from the fire discourages standing.

In addition, while sitting on the floor mats, there were often finely embroidered mats lining the inside of the wek, to look at. They were called mannotaúbana. Williams found them "as fair a show as hangings with us" (p. 211). The word seems to begin with "manito,"[6] denoting then that its design might be meant to recall the gods, to those who sat and studied it.

A mat door (kuppuhhou; fr. kuppi, close) is generally kept closed to prevent disturbing the fire:

> "Their door is a hanging mat, which being lift up, falls down of itself. Yet many of them get English boards and nails, and make artificial doors and bolts themselves; and others make slighter doors of birch or chesnut bark, which they make fast with a cord in the night time, or when they go out of town, and then the last, that makes fast, goes out at a chimney, which is a large opening in the middle of their house." (Williams, "Key," p. 213)

On days when a strong wind comes in the direction of the door, it may be fastened shut and a mat on the opposite side loosed for access. The chimney also had its "mat to

[6]The Ojibway language has such words: manido mines (spirit-seed; bead), manido minesikan (beadwork), manido wegin (spirit-cloth, broadcloth). See Densmore, Chippewa Customs, pp. 12, 22.

cover it close when they pleased" (p. 216, Williams).

One last note should be made concerning mats. We recall (p. 48 this text) that Higginson has referred to seeing a wèk with its sides "matted with boughs." Later we shall find that girls during menstruation use cedar boughs as a floor covering, and that pine boughs cover the sides of ceremonial buildings. One might imagine an earlier time when boughs were more common than mats.

Mention has been made of sizes of wèk varying upwards to 100 feet long and 30 feet wide. In any wèk of medium or large size:

> "they make two, three, or four fires, at a distance one from another, for the better accommodation of the people belonging to it ... In their wigwams they make a kind of couch or mattresses, firm and strong, raised about a foot high from the earth; first covered with boards that they split out of trees; and upon the boards they spread mats generally, and some times bear skins and deer skins. These are large enough for three or four person to lodge upon: and one may either draw nearer or keep at a more distance from the heat of the fire, as they please; for the mattresses are six or eight feet broad." (Gookin, p. 150)

The couch boards are called pahsoonagk (fr. pohshinum, he cleaves it). Houses with similar, but higher raised platforms are described among the Huron Indians, an Iroquois tribe not too far distant:

> "Inside, along both walls, sheets of bark were placed on the ground to make a bed and over this, placed on poles laid and suspended down the whole length of the house, a kind of bench 4 or 5 feet high of other sheets of bark, making a sort of canopy for the bed ... In

> the summer, the Indians slept on this bench to escape the fleas; in the winter, they slept on the ground below the mats near the fire and close to one another. The children slept in the warmest and highest place and the parents next with no space between them or at the foot or head. When going to sleep, they simply lay down and muffled their heads in their robes. A sleeping mat was used. In the space beneath these benches was kept wood to burn in winter."
> (Tooker, p. 40-41)

We presume that among the Massa-wadchues-et Indians, the couch was used similarly. Among the Ojibway, "to each person who is a member of the lodge-family is assigned a fixed seat, or habitual abiding place, which is called abbinos." (Natick Dictionary, p. 13). In the Natick language there is the word weetapu (weet, house; appu, he sits) which points to this.[7]

An amusing story of an experience on one of these "couches" is related by Winslow in his "A Journey to Pakanokit ..." On a visit to the sagamore Massasoit, Winslow asks that the Indians and colonists be friends, and if the colonists might get some supplies from them. Massasoit replies "yes" with an extended speach that tires them. When no food appears and it grows late, Winslow says:

> "so we desired to go to rest. He laid us on the bed with himself and his wife, they at the one end and we

[7]As to the manner of sitting in a wèk: "The man sat cross-legged ... The woman sat on her right foot with the left foot extending out at one side," these being supposedly the best position for each to do their own kind of work. (Densmore, Chippewa Customs, p. 30)

> at the other, it being only planks laid a foot from the ground, and a thin mat upon them. Two more of his chief men, for want of room, pressed by and upon us; so that we were worse weary of our lodging than of our journey." (p. 365-366)

The Indian "hospitality," fundamental to Louis Henry Morgan's comprehensive study in Houses and House Life of the American Aborigines (1881) is apparent among the Indians inhabiting Massa-wadchues-et Bay. In fact, Winslow left Massasoit's wek the next day, in an attempt to make it back to Plymouth for the sabbath. And this more than slightly miffed Massasoit, who expected of them a stay of several days. Gookin tells us:

> They are much given to hospitality in their way. If any strangers come to their houses, they will give him the best lodging and diet they have; and the strangers must be first served, by themselves. The wife makes ready; and by her husband's direction, delivers to the strangers, according to their quality, or his affection." (p. 153)

In fact, any member of a tribe may walk into another of his tribe's wèk when food is being served, and receive a portion of the meal. Morgan devotes much of his book to showing that this is common among most of the North American Indians.[8]

Returning to the issue of size of the wèk, we look now at the other extreme: a small wèk.[9] Williams, in

[8]This and other related forms of social organization prevent the accumulation of goods and capital, when it might become a detriment to the society as a whole. It is this aspect of Morgan's work that is used by Marx and Engles as a basis for the development of their theories of communism.

[9]The cradleboard, called Pappouse, in which the infant "being greased and sooted, wrapt in a Beaver skin, bound to his good

his "Key" gives the word:

> "Wetuomemese, a little house, which their women and maids live apart in, four, five, or six days, in the time of their monthly sickness: which custom, in all parts of the country, they strictly observe; and no male may come into that house." (p. 211)

This was a common custom among the various Algonkian Indians.

Among the Ojibway the physical privacy of a small wèk was similarly required. One person related to an ethnographer:

> "I began to be that way while I was away at school. I was dreadfully scared and ran home and hid. When my mother found me, she explained my condition to me and built a wigwam for me." (Hilger, p. 50)

The girl is isolated for 4 to 10 days and nights, the period being called among the Ojibway màkwà (turning into a bear). It was "located several rods from the home wigwam, [and] was built either by the girl alone, by her mother, or by the girl with the assistance of her mother or grandmother" (p. 50). The floor was covered with cedar boughs. Often they were so small that the girl could just lie down or stand up. Before

behavior with his feete up to his bumme, upon a board two foote long and one foot broade" (Wood, p. 108). There were usually some hoops of bent wood over the head and under the feet, recalling somewhat the structure of the wèk. In snowy weather it was covered. At times the infant would cry, only quieting after being bound into his pappouse. (Densmore, Chippewa Customs, pp. 48-50)

entering, her cheeks were darkened with charcoal. Inside, she cooked her own meals, and was usually required to do beadwork or sewing in passing the time. On her return to the home wigwam a path is made of cedar boughs on which she must walk. Her mother prepares a feast to which old women are invited. After this, the girl has become a woman: "Play life had ended. Mats had to be made; hides tanned; birchbark receptacles prepared; beadwork designed; wigwams built; meat, fish, berries, and fruit dried." (p. 55) We suspect the customs of the Massa-wadchues-et Indians had similar detail.

In summary, then, we find in the wèk that the floor is the principle place of habitation. It is the place of the fire, and thus warmth and entertainment. Smoke from the fire cooks food upon a wooden stand, cures meat hanging in the smoke hole, and at the same time forces the human activities to the ground.

The name wekinasq abockquòsinash, suggests metaphorically that with the ground lies the understanding of wèk. Wood's phrase "smoakie dwellings" gives us further insight: the notion that "dwellings" take place between "sojournings" is applicable to the daily use of the wèk. The Indians tend to be active and outdoors during the day, but at night they stay in the wèk. Or

in the case of the wetumemese, it is the monthly place of dwelling for women. The wek is a place of human dwelling from the more everyday life. And so it is while lying or sitting in one's own place on the wekinasq abockquòsinash, - a thin but substantial lifting from the earth - the mannotaúbana is seen, birth takes place, ceremonies are held, dreams are dreamt, and death comes. With that final act, as we shall see, the body is rolled up in just the wekinasq abockquòsinash it has died upon, and returned to the earth.

We have come to know well the inside of the wèk, as a dwelling. There is another aspect of Massa-wadchues-et Indian building, to be understood from the foregoing information: the range in size and location and duration of the wèk, one to the other, indicates a larger "field": the landscape which these different buildings inhabit.

Indeed we have not gone into descriptions of the simplest tents used for shelter while traveling; and we needn't do so, because they become so simple that during the summer they be but the ground beneath a tree. And at any time of year the underside of a birchbark canoe can be used.

The sense that the landscape is a habitable field of places is embodied in their usage of the word kōmuk. The definition given by the Natick Dictionary is:

> "kōmuk (?), n. a building, an (artificial) inclosure. The primary signification is, perhaps, that which is built, for other use than for a dwelling place (wèk)." (p. 40)

That kōmuk means "other than a dwelling place" is contradicted by Winslow's account during his journey to visit Massasoit:

> "At length we came to Mattapuyst and went to the sachimo comaco, for so they call the sachem's place, though they call an ordinary house witeo." (p. 368)

We know that this is, in fact, the dwelling house of the sachem (=sagamore, "he prevails"). But that it is named differently we suspect is due to its larger meaning: that it is the residence of the man who politically controls the local landscape. Thus it is that Winslow is drawn out of his way, to stop at the "sachimo comaco," just because he is passing through its territory.

All buildings have this ability to some degree. We find many accounts of the early explorers and colonists stopping at less than a sachimo comaco:

> "As we went to view the place, one said he thought he saw an Indian house among the trees. So we went to see." (Journal, p. 218)

In fact, this can happen with the "unbuilt" parts of the landscape as well. And we do find in the Massa-wadchues-et

language words using kōmuk to refer to "natural" places:

> kuppóhkomuk (kuppi, closed) meaning "1) a place inclosed, shut in; 2) a place which is thick-set, where trees are close together" (Natick Dictionary, p. 43)
>
> sowanohkomuk (sowane-ohke-kōmuk, south-ground-place) meaning "south land," with an implication of "inclosed land that is field" (Natick Dictionary, p. 154)
>
> touohkomuk (supposedly inanimate or passive participle of touohkeu, from toueu-ohke, unoccupied-land, "wild-land") meaning "the wilderness" (Natick Dictionary, p. 165)

This last word suggests that kōmuk is derivitive of ohke (earth, land, ground). In this study, ohke as ground would refer to the habitible landscape in total. Kōmuk would then seem capable of denoting some of the inhabitations.

Among the Narragansett, local to the Massa-wadchues-et, were the words sanaukamuck meaning earth or land; nítauke or nissawnâwkamuck meaning my land; and wuskâukamuck meaning new ground. They all contain the longer awkamuck as the common root, the sound of ohke and kōmuk run together.

Among the more distant Ojibway, gûmig is designated as a "locative ending." Thus the word wanagěk´ogûm´ig is translated wanagěk-gûmig (bark-locative) meaning "dwelling made of any bark except birch bark" (Densmore, Chippewa Customs, p. 12). The word for earth is essentially identical to the locative: the surname Wa´wiěkûm´ig is

translated round-earth (wewĕnegumig). These facts from the Narragansett and Ojibway would seem to substantially support the hypothesized connection between ohke and kōmuk in the Massa-wadchues-et language and culture.

We find kōmuk also in the word wunnauchi-cómmuk, meaning "chimney" where wanashque means "on the top of." In this case we must imagine ourselves outside the wèk, "seeing" the smoke rising from this opening, marking a p. 105 place in the landscape. From outside, the language tells us, one does not "see," then, a wèk. Rather one "sees" a kōmuk in the larger ohke.

Of course, English has this capacity to some extent. For example, we can walk "into a woods" as well as "into a building." The suspected difference between the Indian language and English is hard to get at. One way to allude to it is to recall a conversation that Dr. Jaime de Angulo transcribes into his book Indians in Overalls. He is discussing the creation of the world, with a Pit River Indian named Bill. So far in the discussion Bill has told of the creation of a world of animals...

> "All right, Bill, but tell me just one thing now: there was a world now; then there were a lot of animals living in it, but there were no people then...'
>
> 'Whad'you mean there were no people? Ain't animals people?'

[de Angulo tries to get Bill to name a word for animals separate from people. Bill suggests a word.]

'I don't see how, Bill. That means people, also. People are living aren't they?'

'Sure they are! that's what I am telling you. Everything is living, even the rocks, even that bench you are sitting on. Somebody made that bench for a purpose, didn't he? Well then it's alive, isn't it? Everything is alive. That's what we Indians believe."

One finds from the evidence presented, that the Massa-wadchues-et Indians had a similar stance toward the world.

There are two buildings left to discuss: the sweat lodge and the gaming buildings. With them, comes the life that inhabits the wèk-kōmuk-ohke.

In Chapter XXXI of his "Key," concerning "Sickness," Williams defines the word:

> "Pesuponck; a hot house. This hot house is a kind of little cell or cave, six or eight feet over, round, made on the side of a hill, commonly by some rivulet or brook. Into this frequently the men enter, after they have exceedingly heated it with store of wood, laid upon a heap of stones in the middle. When they have taken out the fire, the stones keep still a great heat." (p. 236)

The building gets its name not from its structure, but rather from the inside activity: it has a verb equivalent pésuppaû-og meaning "they are sweating." The same verb appears in Cree as appóysin and in Ojibway as ábwes, both words which sound of possible relation to the familiar

word *ápu* (he sits).

Among the Ojibway, the implements of the sweat lodge, ("a framework of bent poles closely covered with blankets . . . about 41 inches in diameter") were:

> "four stones a basin or pail of water, a bunch of grass used in sprinkling the water on the stones, a bent stick used in lifting the principle stone, two sticks used in adjusting the principle stone and called "the arms of the stone" ... the three smaller stones were flat on some surfaces so as to support the larger stone, which was as nearly spherical as could be procured." (Densmore, *Chippewa Customs*, p. 94)

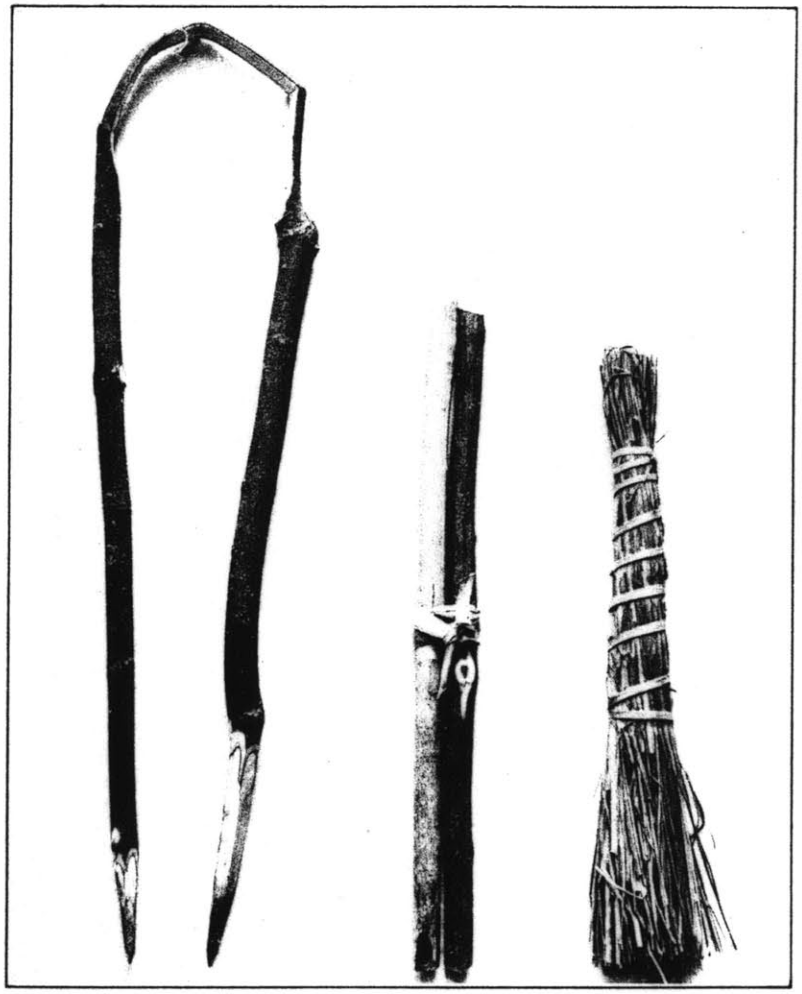
Instead of heating the stones within the lodge, as was done in the pesuponock, here the stones are heated outside and when hot carried in. The larger stone was then heated "as nearly red-hot as possible" (p. 94) and brought in with the carrying stick.

Continuing Winslow's description of the Pesuponock:

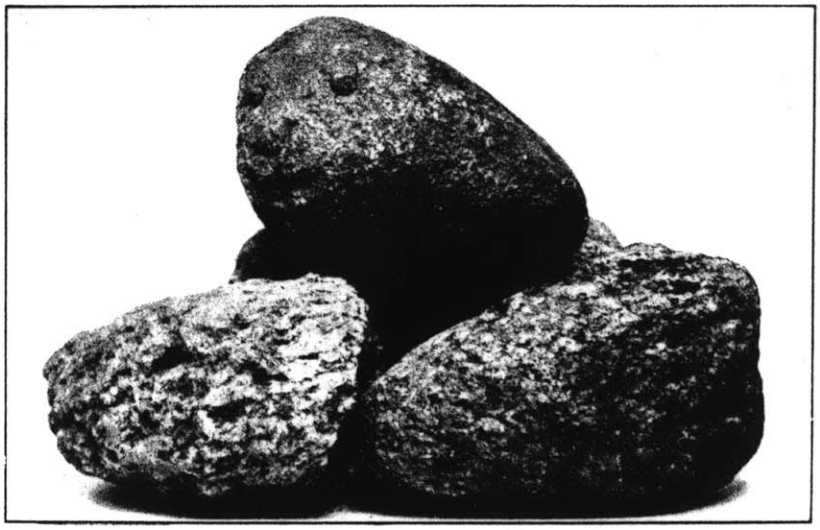
> "When they have taken out the fire, the stones keep still a great heat. Ten, twelve, twenty, more or less, enter at once stark naked, leaving their coats, small breaches or aprons, at the door, with one to keep all. Here do they sit around these hot stones an hour or more, taking tobacco, discoursing, and sweating together. Which sweating they use for two ends: First, to cleanse their skin: Secondly, to purge their bodies ... from diseases ... When they come forth, which is a matter of admiration, I have seen them run, summer and winter, into the brooks to cool them, without the least hurt." (p. 236-237)

Among the Ojibway, the use of the sweat lodge may become a part of the Midewiwin ceremony, before a meeting:[10] the

[10]Among the Huron a medicine man would take a sweat bath in order to diagnose the illness of a sick person. (Tooker, p. 104)



a, Implements



b, Stones used in Mide sweat lodge Densmore, Chip. Cust.

large spherical stone:

> "was regarded as their messanger to the Mide manido ... As it was brought in one of the men said, "They are bringing the messanger; be careful he does not fall." The stone was placed in position with great care, but another man usually took the "arms of the stone" and adjusted it to a better position. A leader of the Mide might be invited to the sweat lodge, and if so, the two sticks, water, and bunch of grass would be put before him and he would speak. "He smoked and then thought a while." When he was ready he dipped the bunch of grass in the water and sprinkled it on the upper stone, saying with the action, "We-e-e, ho-ho-ho." He did this three times ..."
> (Densmore, Chippewa Customs, p. 94)

They take turns giving messages to the stone. When the stone steamed they considered it a response to their messages. They sang and pounded softly on one of the lower stones, and sometimes smoked quietly. They sat with their eyes closed. At the end, the stones were placed at the side of the lodge for safe keeping.

We have no record that the ceremony of the Massa-wadchues-et was as rich as the Ojibway's. However, the use of tobacco was mentioned by Williams, commonly used as a religious offering. There is, also, an exceptional richness in the architectural description of the "cave six feet or eight feet over, round, made on the side of a hill, commonly by some rivulet or brook." It almost demands of some ceremony to accompany it. Remembering the god-land in the southwest, sowwainiu, one is wont to imagine this earthen experience as being similar to

climbing down into the "kiva," the focus of ceremony for the Indians of the southwest.[11]

The Ojibway, on occasion, emerged from their sweat house to enter the Mide meeting. We have no record of a Midewiwin society among the Massa-wadchues-et. However, there are descriptions of pauwanonk ("witchcraft"), better known in English as pow-wow (pauwau, he uses divination). Wood tells of:

> "their Pow-wows betaking themselves to their exorcismes and necromanticke charmes, by which they bring to passe strange things, if wee may beleeve the Indians, who report of one Pissacannawa, that hee can make the water burne, the rocks move, the trees dance, metamorphize himself into a flaming man." (p. 92)

The Powwaws (priests) have the power to reverse the living and dead:

> "in Winter, when there is no greene leaves to be got, he will burne an old one to ashes, and putting those into the water, produce a new greene leaf, which you shall not onely see, but substantially handle and carrie away; and make of a dead snakes skinne a living

[11]See Whorf's paper "Linguistic factors in the terminology of Hopi architecture" in Language, Thought, and Reality for an interesting discussion of the word "kiva," more correctly ki•-he, which refers to all buildings, not just those dug into the ground. Whorf says ki•he is "the spot of ground or floor on which the occupancy occurs" (p. 205), quite a similar definition to that we found with wèk. One cannot help but notice, also, the phonetic similarities of the two words. It would be interesting to examine that in detail. Vincent Scully's book Pueblo: Mountain, Village, Dance, does not make such a comparison. Rather he considers the "kiva" as: "obviously set out to imitate natural forms" of mountains and mesas (home of their god Masau'u), in contrast with Greek sacred architecture which is built to stand free from Nature; "because the landscape is sacred it embodies its own divinity separate from man." (p. 4)

> snake, both to be seene, felt, and heard; this I write but upon the report of the Indians, who confidently affirme stranger things." (Wood, p. 93)

Since they possess these kinds of powers, they are:

> "sent for by the sick and wounded; and by their diabolical spells, mutterings, exorcisms, they seem to do wonders. They use extraordinary strange motions of their bodies, insomuch that they will sweat until they foam." (Gookin, p. 154)

The reference to "sweating" reminds us of the Pesuponck, the sweat lodge, where we were told sweating "purged their bodies from diseases."

Winslow gives a description of a pow-wow he interrupts when visiting Massasoit, who is blind and lying on his "deathbed:"

> "When we came thither, we found the house so full of men as we could scarce get in, though they made their best diligence to make way for us. There were they in the midst of their charmes for him, making such a hellish noise, as it distempered us that were well, and therefore unlike to ease him that was sick. About him were 6 or 8 women, who chafed his arms, legs, and thighs, to keep heat in him." (Winslow's Second Journey, p. 368)

When this has finished, Winslow cures him of his blindness and brings him back to life, with medicine from Plymouth. Following this, they became quite interested in Winslow's "God."

We do not have good details of these ceremonies, indeed Williams has admitted to leaving whenever such practices began, "lest I should have been partaker of

Satan's inventions and worships" ("Key," p. 228). We know that some external application of herbs and roots, as well as splintering and binding up of the wounds, was practiced (Gookin, p. 154). Wood also mentions "sucking charmes" by which, for example, a "small tree" that was run through a patient's foot, is extracted leaving the foot "as whole as its fellow" (p. 93).

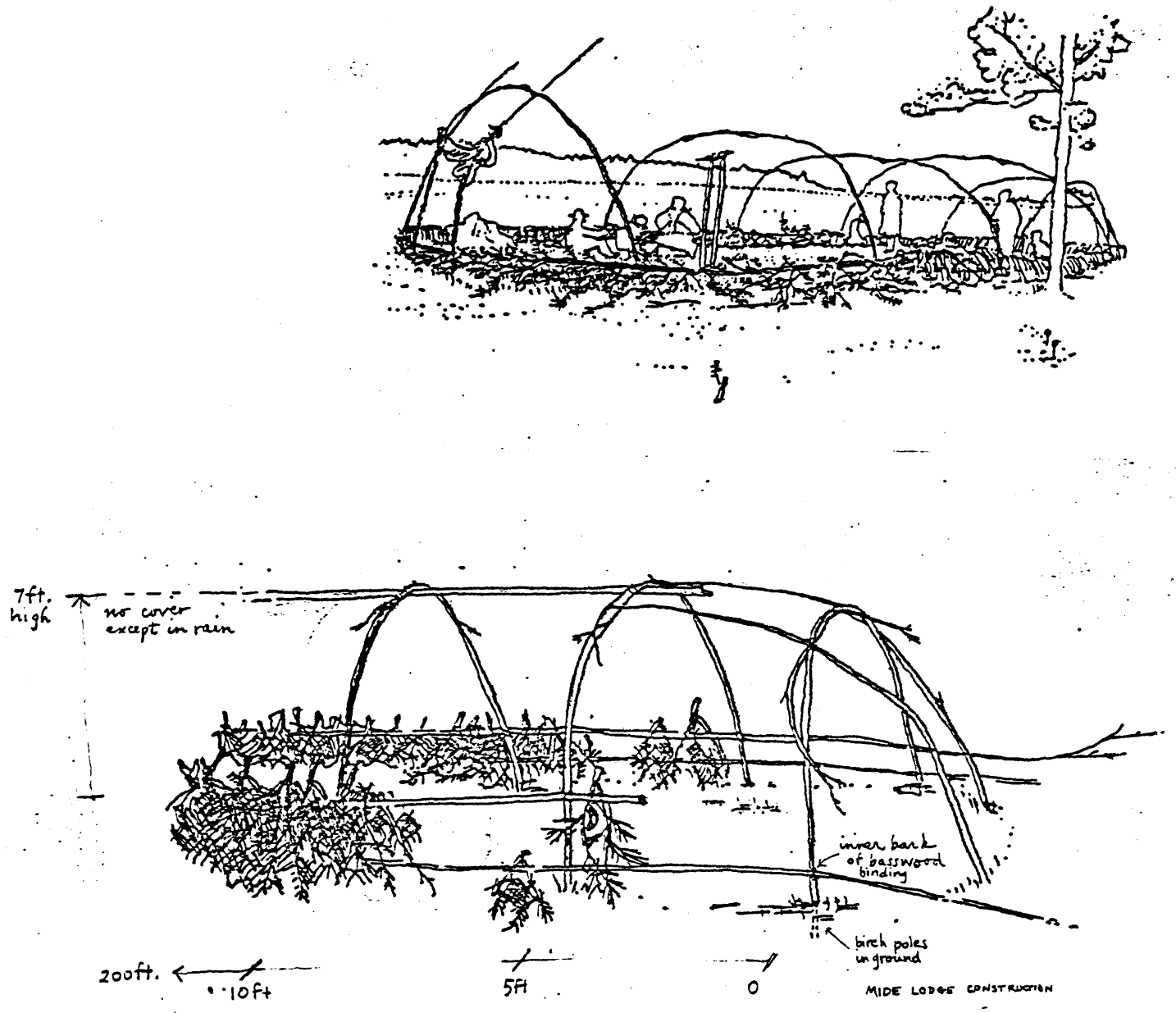
A more public religious ceremony is described by Winslow as a keesaquunnamun:[12]

> "wherein they lie under the trees, in a kind of religious observation, and have a mixture of devotions and sports. But the chiefest idol of all for sport and game, is, if their land be at peace, toward harvest, when they set up a long house, called Quunnekamuck, which signifies long house [note: kōmuk], sometimes an hundred, sometimes two-hundred feet long, upon a plain near the court, where many thousands, men and women, meet ... danceth ... and gives ... things away to the poor." ("Key," p. 234-235)

These and other kinds of games, we find more or less[13] connected to religious activity. They usually inhabit p 206 some special place (kōmuk) in the landscape. Bushnell in his Native Villages and Village Sites East of the Mississippi believes that Winslow here described structures which "closely resembled the Mide lodge of the Ojibway" (p. 21).

[12]Perhaps related to Keesuckquand, the Sun God.

[13]One game played between villages involved the building of a Puttuckquapuonck, a playing arbor. It is defined by Winslow as "made of long poles set in the earth, four square, sixteen or twenty feet high, on which they hang great store of their stringed money" ("Key," p. 234). This brings to mind the lobster and fish drying platforms described by Wood p. 107.



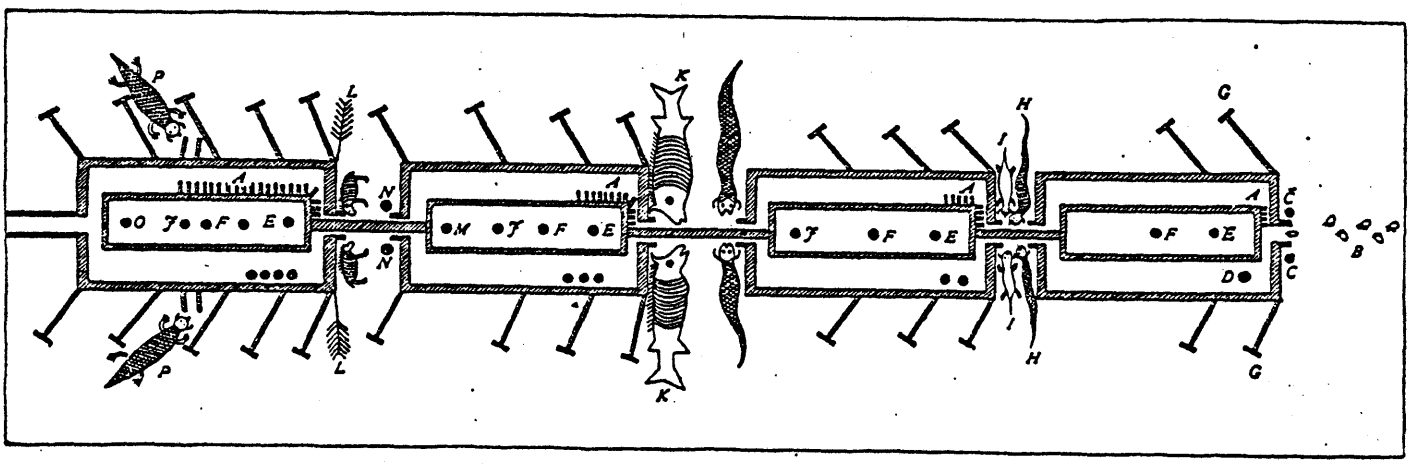


FIG. 12.—Drawing on Mide roll of Mide Lodge, in Densmore Chip. Customs p. 91

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INTERIOR VIEW

EXTERIOR VIEW

MÍDE' LODGE

These photographs were taken during a Mide' ceremony at Elbow Lake, White Earth reservation, May, 1909.

Densmore Chip. Music I

Dreams and dreaming (unnukquom) were less physical, but powerful aspects of Indian life.[14] Ojibway boys became men only after they had fasted several times for periods up to 10 days. The fast would begin only on the morning of a good dream, and would take place in the woods alone, the boy lying in a human built "tree nest" (wȧdissȧn; the Massa-wadchues-et language contains p.182 the word wadsh, nest) with his cheeks blackened with charcoal. There he would wait to "contact the spiritual world and obtain a medium in it in the form of a guardian spirit" (Hilger, p. 44).

We do not know whether this happened among the Massa-wadchues-et, but Williams gives a first hand account of an Indian who:

> "had a vision or dream of the sun ... darting into his breast; which he conceived to be the messenger of his death. The poor native called his friends and neighbors, and prepares some little refreshing for them; but himself was kept waking and fasting, in great humiliations and invocations, for ten days and nights." ("Key," p. 210)

And in general, we are told, if an Indian has a bad dream during the night it is conceived to be a threatening from a god, and they fall to prayer immediately afterwards.

Williams also mentions being with a dying Indian, who:

[14]Winslow says: "cowwewonck, the soul, is derived from cowwene, to sleep, because, they say, it works and operates, when the body sleeps." ("Key," p. 228).

> "called much upon Muckquachuckquant, which of the other natives I understood, as they believed, had appeared to the dying young man many years before, and bid him, when he was in distress, call upon him." ("Key," p. 227)

That it was "many years before," and that he is called a "young man," suggests that he may have communicated with Muckquachuckquant ("the childs god") before puberty - perhaps during a fasting.

Among the Huron Indians, we know that there were ceremonies at which sicknesses were cured by acting a dream out in reality,[15] or a dream causing illness had to be guessed as a riddle.[16] The details sometimes involve the patient walking barefoot through fires, or the medicine man "chewing," "holding," "spitting," and "throwing" red hot coals; in one case a medicine man "growls like a bear into the ears of his patients" while holding a large live coal in his mouth. The Huron seem to excell in these feats. At least we can say that good descriptions remain of them.[17]

As we have said in the beginning of this paper, the descriptive material we have on the Massa-wadchues-et is limited. So we have had to resort to ceremonies from other

[15] In one case a woman dreamt that young men, women, and girls danced naked in front of her and that one of the men made water into her mouth. This was carried out, in all its strangeness.

[16] A feast called "turning the brain upside down" in which among other things, people "went through the houses upsetting everything."

[17] See Tooker, pp. 101-122.

local tribes, to indicate how intensely the physical form may have been used.

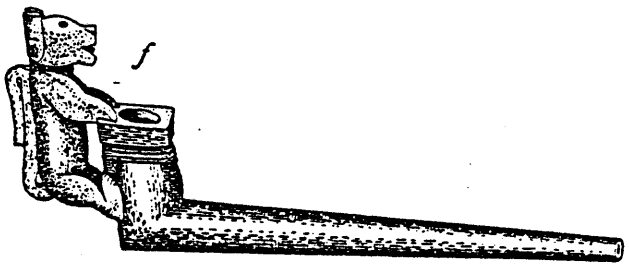
Thus, we find the kōmuk - ohke, the landscape of places, brought to life with games, dreams, and ceremonies of faith and curing. It is these visions and howlings and sweatings, which put the whole framework into motion and change: create life and death.

> There was a heap of sand ... covered with mats ... which we digged up, and in it we found a little old basket full of fair Indian corn; and digged further, and found a fine great new basket, full of very fair corn. (Winslow, "A Journal," p. 209)

When the ceremonies fail, the body is wrapped in the wekinasq abockquòsinash upon which it has died. The bundle is taken to the mouth of the grave and laid down. All present, their faces blackened with charcoal, and wearing black, sit down beside the grave and lament. After some period of time the lamenting stops and the body is placed in the grave, along with some goods. They then have a second great lamentation. The body and goods are covered with earth; the wekinasq abockquòsinash upon which he died, along with the birchbark dish he ate from, are placed over the mound. And sometimes a fair coat of skin is hung upon the next tree to the grave,

and none will touch it yet it rot and fall.[18]

[18]This description from Williams' "Key" p. 237-238. We note: (a) the absence of fire, - or warmth and life - embodied in the black charcoal, the same material used we recall, in the puberty rites of the boys and girls, and in some curing ceremonies (along side live coals). (b) The "second great lamentation" brings to mind the Huron "feast of the dead." This feast happens at approximately 7 year intervals, during which all bodies buried after the last "feast of the dead" are reburied with a second great ceremony (see Tooker, p. 115). (c) Among the Massa-wadchues-et, those with the same name as the deceased, change it. The death may require some further action to appease the god who is angry; occasionally relatives burn their own wèk (see Gookin, p. 140; and "Key," p. 238).



NEW ENGLAND

Planting & Exploring

In 1492 "India," so called by Christopher Columbus (a Genoan in the service of Spain), was found 34 days sailing time west of Gomera (one of the Canarie Islands). Five years later John Cabot and his son Sebastian, while trying "to saile by the West into the East where spices growe," reached the coasts of Labrador and Newfoundland. It was not until 1602, one hundred and five years later,

that the shores of Massachusetts were landed upon by Europeans.

During those intervening years: Vasco da Gama (a Portuguese) had sailed east around the Cape of Good Hope and reached India (1489), Vincente Pinzon and his shipmate Amerigo Vespucci had discovered (1500) the mouth of the Amazon River, Ferdinand Magellan had made it around the southern tip of America (1520) and westward to the Philippines where he died; his ship continued on to Spain in 1522, having circumnavigated the globe. Hernan Cortes seige of Mexico City began (1521); he was joined by Juan Rodriquez Cabrillo (a Portuguese navigator for Spain) in the conquest of Oaxaca, Tehuantepec, and Guatemala. Cabrillo afterwards explored northward into California, dying (1543) in the vicinity of Santa Barbara. His pilot, Bartolome Ferrelo continued exploring northward, and reached Cape Blanco on the Oregon coast before turning back in 1544. Note, reader, we are but half way through the Spanish/Portuguese history of that intervening century.

In England, the reigns of Henry VII (1485-1509), Henry VIII (1509-1547), Edward VI (1547-1553), and Mary I (1553-1558) had come and gone. It was not until 1576 in the reign of Elizabeth I, that the "search for a passage to India" fever hit England hard. In that year the voyages

of Cabot and son were remembered: Martin Frobisher went off in search of a North-west passage, followed by John Davis in 1585 (failing of course, as all subsequent attempts did until 1896 when Fridtjof Nansen's "Fram" made the voyage west to east). When Francis Drake became "Sir Francis Drake," for circumnavigating the globe for England, still twenty-two years remained before Europeans would step on the shores of Massachusetts.

It took these hundreds of thousands of miles of sailing to blow the wind out of that European singleminded view of easy riches from the orient. And so the first colonies were settled on the closer shores: Europeans went to the new land to stay, to live: The English to New England.

This chapter would deal with the continuities and innovations of building techniques, in the move from Old England to New. The thesis is that the attitude toward materials and landscape turned from "friendly" (in the Old) to "dangerous but awesome" (in the New). In other words, the New English house was inward turning and strictly organized around the central fireplace (there is a topological similarity to the "wigwam"); there was little interest in the "crooks" and "special oakes" so necessary

for medieval building;[1] *but there was a fascination with the new land.*

The first explorers, the ones who did not sit down and start Planting, experienced the strong new soil; their writings are truely projective histories:

> *"Glow-worms here have wings, and there are multitudes of them insomuch that in the dark evening when I first went into the Country, I thought the whole Heavens had been on fire, seeing so many sparkles in the air ..." (An Account, p. 293)*

So reports (1674) John Josselyn, describing what we would call a firefly. He describes another New World animal, the beaver, which can be tamed, like the one

> *"that not long since was kept at Boston in the Massachusetts Bay, and would run up and down the streets, returning home without a call." (An Account, p. 273)*

We should recall, also, the lively writings of William Wood which were discussed in Chapter 2, concerning the Native inhabitants.

These are "projective histories," in the sense that they are used as source and style for future writers. See Philip Gura's fascinating paper tracing the continuities from Josselyn to Thoreau.[2]

It is just this excess of life in the landscape,

[1]See, for example, W. Harrison A Description of England (1587), 1877 reprint; Vol. 1, Book 2 "Of the Manner of Building."

[2]"Thoreau and John Josselyn", see bibliography.

which causes the "Planting" and "Peopling" colonists to build in and away from the outside. The masonry core builds an anchor in what appears to be an ever-new world.

In the early houses, the entry is stopped by this mass of stone: it forces us to change direction. We may go up the stairs which sits against the stone, or we may go left or right around it. With the addition of the lean-to, the fireplace becomes completely enclosed. Later buildings, start to aggregate this simple plan, p.212 *and then extend it with additions and out-buildings.*

THE NEW-OLD UNDERSTANDING

DOWNING born 1815

"Certainly the national taste is not a matter of little moment. Whether another planet shall be discovered beyond Le Verrier's may or may not affect the happiness of a whole country; but whether a young and progressive people shall develop ideas of beauty, harmony, and moral significance in their daily lives ... whether the country homes of a whole people shall embody such ideas of beauty and truth as shall elevate and purify its feelings; - these are questions of no trifling importance."(p. 1)

"There are three most important truths which all Domestic Architecture should present, and without which, it must always be unsatisfactory. The first is, the general truth that the building is intended for a dwelling-house; the second, the local truth that it is intended for a town or country house; and the third, the specific truth that it is intended for a certain kind of country house - as a cottage, farm-house, or villa." (p. 31)

"Windows, doors, and chimneys, are the first of these truths, though they are not the highest ... Verandas, piazzas, bay-windows, balconies, etc., are the most valuable general truths in Domestic Architecture; they express domestic habitation more strongly because they are chiefly confined to our own dwellings." (p. 32)

"If hospitality smiles in ample parlors; if home virtues dwell in cosy, fireside family-rooms; if the love of the beautiful is seen in picture or statue galleries; if intellectuality, in well-stocked libraries; and even a dignified love of leisure and repose, in cool and spacious verandas; we feel, at a glance, that here we have reached the highest beauty of which Domestic Architecture is capable - that of individual expression." (p. 23)

"Domestic Architecture is only perfect when it is composed so as to express the utmost beauty and truth in the life of the individual. It is not always necessary that a proprietor can design his own house, or even that his architect knows his so completely as to make his work express the individual truty. Hence we seldom see

entirely satisfactory architecture; but as character always makes its mark, something of this kind always does happen ... . It is impossible in a series of designs, like those which follow, to make any one of them entirely satisfactory, as a residence, to any individual of taste. To do this the architect must know the man." (p. 26)

p. 114 *"Picturesque Architecture, where its picturesqueness grows out of strong character in the inhabitant, is the more interesting to most minds." (p. 29)*

p. 128 *"To give an expression of local truth to a country house, it should always show a tendency to spread out and extend itself on the ground, rather than to run up in the air." (p. 33)*

"Country architecture, which is not cramped in its manifestation, but develops itself freely, as a tree expands which is not crowded by neighbors in a forest, but grows in the unrestrained liberty of the open meadow." (p. 23)

"Material should appear to be what it is. To build a house of wood so exactly in imitation of stone as to lead the spectator to suppose it stone, is a paltry artifice ... When we employ stone as a building material, let it be clearly expressed: when we employ wood, there should be no less frankness in avowing the material." (p. 35)

"If a man is ambitious of attracting attention by his house, and can only afford wood, let him (if he can content himself with nothing appropriate) build a gigantic wigwam of logs and bark, or even a shingle palace." (p. 37)

"What we mean by a cottage, in this country, is a dwelling of small size, intended for the occupation of a family, either wholly managing the household cares itself, or, at the most, with the assistance of one or two servants. The majority of such cottages is this country are occupied, not by tenants, dependants, or serfs, as in many parts of Europe, but by industrious and intelligent mechanics and working men, the bone and sinew of the land, who

own the ground upon which they stand, build for them for their own use, and arrange them to satisfy their own peculiar wants and gratify their own tastes." (p. 40)

A.J. Downing, The Architecture of Country Houses, first published 1850.

THOREAU born 1817

With an oeuvre of but one house, it is no surprise that there has been little recognition for Henry David Thoreau, the architect. However, as that one little house is perhaps as famous as any in popular American history, it seems that Thoreau not only might, but should be so considered. There are a few critics[1] who have

[1]Those known to the author include: Gaston Bachelard in his Poetics of Space mentions Thoreau as a hermit with the associated image of "hut" (p. 32), as a "dreamer of dwellings"

entertained the idea. Their analyses seemed to miss some major understandings, so this study was begun.

I see two strong architectural directions in Walden: first, Thoreau describes a way of building that is tied to a way of living, and in doing so gets to the verb in building, and second, insofar as the way of life he describes oscillates between sojourning, dwelling-from-the-journey, and settling, there may be some special understandings of American building. I will examine the

(p. 62), and an observer of the human nature of "nests" (p.96); Theodore M. Brown in his article "Thoreau's Prophetic Architectural Program" examines many passages about architecture finding his aesthetic a functional one. He praises Thoreau for extraordinary insight into the psychology of space, and claims finally that his thoughts anticipate both Sullivan and Wright in several aspects; James Early in his Romanticism and American Architecture compares Thoreau with Emerson and Greenough in their understandings of "beauty;" Walter Harding in his A Thoreau Handbook suggests that Thoreau was primarily a functionalist and in this respect anticipated Wright and Sullivan. It is interesting that Harding claims to have received a letter from Wright in 1952 in which Thoreau is praised for his "wise observations on the subject (of American Architecture);" Charles R. Metzger in his Thoreau and Whitman devotes a chapter to "Architecture at Walden," in which he primarily examines the differences and conflicts between Thoreau and Greenough. He finds them different in emphasis of a similar functional-organic aesthetic. Metzger finds Greenough's theories superior to Thoreau's because they are more practical in their advice to the artist; Lewis Mumford in his Roots of Contemporary American Architecture lets Thoreau speak for himself by including (pp. 84-92) a section from Walden. Later in an essay on Olmstead, Mumford discusses (pp. 104-7) Thoreau's views as they relate to regional planning: "in short he tasted the land;" Sherman Paul in his The Shores of America: Thoreau's Inward Exploration calls the difference between Thoreau's and Greenough's aesthetics, that Thoreau looked down on the idea of "fine art." "He was using the house to symbolize human qualities . . . yet nowhere . . . did he show what he meant;" Joseph Rykwert in his On Adam's House in Paradise mentions Thoreau's "hut" as having an important influence on the idea of "primitive" living acquired, for example, by Wright.

first notion in some detail; the second is more properly only a path that will show itself between the lines. Some footnotes in the text give a sense of how this could go.

Of course we must admit openly and happily from the start that Walden is a book for everyone; it was not written as the latest thing in architectural theory. His talk of architecture is scattered from one end of the book to the other, in lengths, from one word to several pages. In our examination of portions of the text we must keep in mind that there is this larger context: Walden is a book full of stories, poems, and parodies; it is for young and old; put simply, it tries to startle us into living willfully. Still, with the small sections we do take from the text to blow up into what we will, there is some consolation in Thoreau's directions to us: "We must seek the meaning of each word and line, conjecturing a larger sense than common use permits . . . The works of the great poets have never been read by mankind, for only great poets can read them."[2] So now, let us be great poets.

It is necessary to begin not with a discussion of buildings, or of the building process - both of which are

[2]The Annotated Walden pp. 232, 235. Hereafter cited in the text by page number.

important in Walden as we shall see - but rather with some uncovering of Thoreau's stance concerning "the nature of man." As I see it, and shall try to show, Thoreau understands the human being with a few distinct ways of living. It is the differences (their distinctness) and the way they relate to each other, that Thoreau then uses as an origin to which can be bound building and the built.

We might best begin by examining one passage in detail: "The very simplicity and nakedness of man's life in the primitive ages imply this advantage at least, that they left him still but a sojourner in nature. When he was refreshed with food and sleep he contemplated his journey again. He dwelt, as it were, in a tent in this world, and was threading the valleys, or crossing the plains, or climbing the mountain tops. But lo! men have become the tool of their tools. The man who independently plucked the fruits when he was hungry is become a farmer; and he who stood under a tree for shelter, a housekeeper. We now no longer camp as for a night, but have settled down on earth and forgotten heaven." (p. 175)

First, it should be noted that to see man in the primitive ages is not meant to allude to anthropological evidence in the scientific sense. Rather it is to

metaphorically bring us to what there in fact is, when we come to "the very simplicity and nakedness of man's life." So Thoreau tells us, when stripped of all that is unnecessary, this essential, "primitive" man is the "sojourner" - the one who journeys in nature and whose nature is journey.

This journey is only halted for food and sleep. In another passage this primitive age has been described as: "a sort of Elysian life. Fuel, except to cook his food, is then unnecessary; the sun is his fire, and many of the fruits are sufficiently cooked by its rays; while Food generally is more various, and easily obtained, and Clothing and Shelter are wholly or half unnecessary" (p. 155).

Here the halting of the journey for food and sleep is almost inconsequential: they are but necessities to be "easily obtained." Indeed once refreshed, Thoreau tells us, he only contemplates again this "threading" and "crossing" and climbing" that make up his day: as if to have stopped at all was only a hindrance to the journey. However, it is right here that we uncover something new: to contemplate a journey is not to journey. Although food and sleep first necessitate the stopping of the journey, contemplation then becomes

a further drawing away from the actual journey. In fact we might say that to contemplate a journey is to be distracted from a journey.

What causes a distraction? Thoreau says: "Any prospect of awakening or coming to life to a dead man makes indifferent all times and places. The place where that may occur is always the same, and indescribably pleasant to our senses. For the most part we allow only outlying and trans ient circumstances to make our occasions. They are in fact the cause of our distraction" (p. 266).

So it is that the contemplation of the journey, like the prospect of awakening, happens in a place and time unlike any we could enter while traveling by day. The contemplation of the journey is a kind of distraction from the journey which takes an inward turning, tropic kind of place and time very different from those of the geometric journey.

It is in this sense that Thoreau tells us "He dwelt." He dwelt where he contemplated the next day's journey in those moments before or after sleep. And where was that dwelling? "As it were" he dwelt "in a tent." But where is "in a tent?" With respect to the day's journey, the tent's outside cloths are somewhere near a mountain, or in a valley, or perhaps on a plain. It was somewhere

along that route that the journey was stopped for food and sleep. This does not really tell us of the inside however. Something new has begun - a contemplation, a dwelling - and it happens in a time and place wholly unlike any time and place of the journey. We only know it happens "in a tent." We have not learned how many miles from some mountain he spends his night. We have learned what is inside a tent: a dwelling from the journey.

The tent, we are told, is "in this world." "This world" does not seem to be the inside of the tent which is characterized by dwelling. Nor does it seem to be simply the physical earth surrounding the tent's cloths which is characterized by the journey. Rather, "this world" is precisely at the meeting of both. It is the tension between dwelling and journey - it is the tent - which makes "this world." The last line of the passage speaks of "earth" and "heaven." "World" would be where "earth" and "heaven" meet.

That we can dwell only from a journey, and that the journey might best even include some nights is emphasized in this advice to poets and saints: "It would be well perhaps if we were to spend more of our days and nights without obstruction between us and the celestial bodies, if the poet did not speak so much from under a roof, or

the saint dwell there so long" (p. 168). The danger is that one will dwell too long indoors and in some sense lose the fruit and true meaning of dwelling.

The idea that dwelling is a night activity related
p. 127 to the heavens and so fundamentally different from day and earth, is developed in a later passage: "Both place and time were changed, and I dwelt nearer to those parts of the universe and to those eras in history which had attracted me. Where I lived was as far off as many a region viewed nightly by astronomers. We are wont to imagine rare and delectable places in some remote and more celestial corner of the system, behind the constellation of Cassiopeia's Chair, far from the noise and distrubance" (p. 219-20). To dwell is to be distracted from our journey - from our day. And so we dwell at night. Our journey is full of different times and places, but none is like where we dwell. To dwell we must go beyond even where Cassiopeia sits.

This brings us to the evils of sitting: settling. Following the lines describing sojourning and dwelling which we take to be the primary nature of man, Thoreau cries "But lo! men have become the tool of their tools." The tent itself was a tool, somehow for building a "world" between dwelling and sojourning. Now the tool becomes master of the master: we no longer dwell or sojourn, we

"housekeep." Thoreau laments because to "keep" a house is to "settle down on earth and forget heaven:" it is to lose the "world." In this sense settling destroys the meaning of house as dwelling. Thus we see "settling-down-on-earth" in a house as it is opposed to "dwelling" in a house. To "settle down" is to not sojourn; to not sojourn is to not be capable of dwelling; to not dwell is to forget heaven; to forget heaven is to lose the world.

The farm keeper is singled out by Thoreau as the prime example of this evil in several descriptions such as: "How many a poor immortal soul have I met well nigh crushed and smothering under its load, creeping down the road of life, pushing before it a barn seventy-five feet by fourty, its Augean stables never cleansed, and one hundred acres of land, tillage, mowing, pasture, and wood-lot" (p. 147). Thoreau sees the farmer as saddled with so much that he has lost his freedom to sojourn and so his better part is only "ploughed into the soil for compost."

Yet there is much more to settling than becoming a farmer. Thoreau asks later: "What is a house but a sedes, a seat?" (p. 213) and describes the process of settling in a more positive way: "Let us settle ourselves, and work and wedge our feet downward through the mud and slush of opinion, and prejudice, and tradition, and

delusion, and appearance, that alluvion which covers the globe, through Paris and London, through New York and Boston and Concord, through church and state, through poetry and philosophy and religion, till we come to a hard bottom and rocks in place . . . which we call reality . . . a place where you might found a wall" (p. 228).

By settling in earth - sitting in a house with a foundation in the earth - we and the house become part of earth. It should be emphasized that this kind of settling in earth is nothing like sojourning on earth, for which we are but dwellers from another planet or star. As dwellers, we journey on earth by threading our way over and around what we come to; it is by being settlers in earth that Thoreau says we may come to understand "reality."

"Reality" and "settling" to Thoreau are bound together and can seemingly be explained only by metaphor. In the context of Walden as a whole this stance toward "reality" forms a fundamental notion which carries a way of life with it. As far as our architectural concerns go, the appropriate metaphor for "reality" or settling" may be something akin to that of "birdnest."[3] In several passages he uses nest-like imagery in describing his house: "I

[3]Poetics of Space, p. 96

withdrew yet farther into my shell, and endeavored to keep a bright fire both within my house and within my breast" (p. 374) . . . "As the sparrow had its trill, sitting on the hickory before my door, so had I my chuckle or suppressed warble which he might hear out of my nest" (p. 244).

Settling seems to be an inward turning action - "withdrawing into my shell" - such as we would think similar to "withdrawing from the earth." But since a shell is part of earth - "he might hear out of my nest" - we are in fact mysteriously bound to that which we withdraw from. Reality is what we find when we settle ourselves and it is somehow the fundamental nature of all things.

In dwelling and sojourning we found distinctly different kinds of time and place. When "settling in" we transcend all time and place. About time Thoreau says: "Time is but the stream I go a-fishing in. I drink at it; but while I drink I see the sandy bottom and detect how shallow it is. Its thin current slides away but eternity remains. I would drink deeper; fish in the sky whose bottom is pebbly with stars" (p. 230). We are distracted in one time and we journey in another time, but beneath all of this is an eternity which is reality. Of this mystical primal element Throeau says: "reality is fabulous" (p. 226) . . . If you stand right fronting and face to

face to a fact you will see the sun glimmer on both its surfaces" (p. 229).

By linking fish-sky and pebbles-star Thoreau wipes away the border between heaven and earth and lays them to rest on the mystical "bottom." The "bottom" or "reality" or "fact," we are told, will "glimmer on both its surfaces" when we are "right fronting and face to face" with it. Although there are two surfaces - perhaps one reflecting heaven and the other earth - there is but one fact.

This concept of a penetrating reality is developed later as "a sort of architectural foliage" (p. 424) of which the earth is built. "No wonder the earth expresses itself outwardly in leaves, it so labors with the idea inwardly" (p. 424). Of further interest he describes reality as not having been built up, but as being always in the process of building: "The earth is not a mere fragment of dead history, stratum upon stratum like leaves of a book to be studied by geologists and antiquaries chiefly, but living poetry like the leaves of a tree, which precede flowers and fruit, - not a fossil earth, but a living earth" (p. 426).

p. 83

By settling in a house, we may come to terms with the earth. A house can be a part of the "living earth" and as such can bring us right fronting and face to face with

this reality. However the danger, we recall, is that it is possible to "settle down on earth and forget heaven" as the farmer has done.

The difference is whether one "settles down on earth" or "settles in the living earth." To "settle down on earth" implies coming down from somewhere - leaving a place behind - but to "settle in the living earth" is somehow to become a part of a process. In our previous terminology it would be that to "settle in the living earth" is to form a "world" about man. It is again to come into the domain of both earth and heaven, allowing man to both root and blossom.

For Thoreau, man's nature passes between sojourning, dwelling, and settling. Journey and dwelling complement each other and in their opposition form one kind of "world" about man. But also man tends to settle down. Where this happens the dwelling-sojourning world is lost and Thoreau sees man as become "tool of his tools." However, Thoreau does suggest that there is a sense of settling in the living earth which can lead us to a larger reality. This reality - which is Thoreau's own discovery so to speak - becomes then another world about man in which he may partake of both heaven and earth.

We have identified in Walden two fundamental kinds of life that are linked strongly to the house. Let us now consider Thoreau's descriptions of the house at Walden Pond and see how these manifest and resolve themselves in that house. But can we actually begin by looking at the "finished" house? Remembering Thoreau's thought that "nothing is inorganic" (p. 426), it is clear that we should not. In fact, a consideration of the organic nature of the house provides a place for us to begin our building up of that house in our mind.

The beginning of building of the house at Walden Pond was Thoreau's search for a site to live on. He wanders the countryside seeing farms, houses, and places where he might live. At each place he passes he claims he "did live" (p. 213), purchasing each from its owner, only to return it "having enjoyed the most valuable part of a farm, while the crusty farmer supposed that he had got a few wild apples only" (p. 214). Thoreau means this to be humor, but also we suspect he has in some sense dwelt in each place, and owned it in the respect to which we each own our moments of distraction.

He finally decided to build his own house "seated
p. 210 by the shore of a small pond" (p. 217). There he says: "I dug my cellar in the side of a hill sloping to the

south, where a woodchuck had formerly dug his burrow, down through sumach and blackberry roots, and the lowest strains of vegetation, six feet square by seven deep, to a fine sand where potatoes would not freeze in any winter" (p. 181). In this manner the house is settled in the earth, among the roots. By starting from where a woodchuck had formerly dug his burrow, the house, so to speak, has a cornerstone of living earth. Thoreau says even when more or less finished he liked to think of his house as "still but a sort of porch at the entrance of a burrow" (p. 181).

Borrowing an axe he cuts white pines from "nearest where I intended to build" (p. 177). He hews and then mortices and tenons the timber, preparing to put up what he has taken down. After laying a foundation of stone (from a nearby hill) for a chimney, he sets up the frame of the house with help from friends. He carefully sheaths the frame by feather-edging and lapping mostly second (and more) hand boards that he renews from the shanty of James Collins, which he had bought for $4.25. Again, the materials - rocks and boards - are only changing location slightly, as if coming into but a different life.

Thoreau takes up abode on the fourth of July, "Independence Day," and describes it as: "merely a

defence against the rain, with wide chinks, which made it cool at night, the upright white hewn studs and freshly planed door and window casings gave it a clean and airy look . . . (it was) fit to entertain a traveling god, and where a goddess might trail her garments. The winds which passed over my dwelling were such as sweep over the ridges of mountains, bearing the broken strains, or celestial parts only, of terrestrial music" (216-17).

So we have our first clear description of his house as dwelling linking him to the heavens and gods. Throughout his stay at Walden Pond he sojourns the countryside leaving nights for star gazing, contemplation, and similar entertaining of gods.

It is interesting that just following this description of dwelling, he adds: "With this more substantial shelter about me, I had made some progress toward settling in the world. This frame, so lightly clad, was a sort of crystalization around me, and reacted on the builder. It was suggestive somewhat as a picture in outlines. I did not need to go outdoors to take the air, for the atmosphere within had lost none of its freshness. It was not so much within doors as behind a door where I sat, even in the rainiest weather" (p. 217). So we have a description of his house as "progressing toward" settling - a linking with the "living earth."

While he is "progressing toward settling," Thoreau tries to retain his closeness to dwelling-sojourning. He tells us: "I sat behind my door in my little house, which was all entry" (p. 264). The house has become a seat, yet it is by the entries - door, window, chimney - that this seat is defined. And it is through those entries that he may enter either a distraction or a journey.

With the coming of cooler weather in the fall, and the need of a warmer house, the house begins to grow a chimney. With second hand bricks, stones from the pond, and mortar mixed with white sand from the pond, he lingers about building the fireplace "as the most vital part of the house" (p. 368). He sees the chimney as "to
p. 65 some extent an independent structure, standing on the ground and rising through the house to the heavens." In this state the house with fireplace carries perhaps the strongest image of dwelling it is to have: "I passed some cheerful evenings in that cool and airy apartment, surrounded by the rough brown boards full of knots, and rafters with the bark on high over-head. My house never
p. 133 pleased my eye so much after it was plastered though I was obliged to confess that it was more comfortable. Should not every apartment in which man dwells be lofty enough to create some obscurity over-head, where flickering

shadows may play about the rafters?" (p. 368-9). With walls and ceiling obscurely alive with knots, flickering shadows, and bark, we are easily distracted from the day; we quietly lie back and join the play.

The house is plastered using sand from the pond and shingled with low grade shingles which he is "obliged to straighten with a plane" (p. 185). In building he knows each material he uses, as the poet knows the origins and subtleties of his words.

The house as it is now fit for winter is rather documentarily described: "I have thus a tight shingled and plastered house, ten feet wide by fifteen long, and eight foot posts, with a garret and a closet, a large window on each side, two trap doors, one door at the end, and a brick fireplace opposite. The exact cost of my house . . . $28.12 1/2" (p. 185-6). Such a clean and normally built house as is described here hardly fits our intuitive image of the "hut" of a hermit in the woods.

This porch on the end of a burrow becomes a settling around which all life at Walden Pond is oriented. Thoreau says: "I sat in my doorway . . . rapt in a revery, amidst the pines and hickories and sumachs, in undisturbed solitude and stillness, while the birds sang around or flitted noiselessly through the house" (p. 243). He talks of "squirrels on the roof and under the floor,

a whippoorwill on the ridge pole, a blue-jay screaming beneath the window, a hare or woodchuck under the house, a screech-owl or a cat-owl behind it" (p. 259), "sun falling in by my west window" (p. 243), "loons," "racoons," "ants," "grapes," "wind," "birds," "blackberry vines breaking through into (the) cellar (again!)" (p. 260). Truly this is a "living earth" and the house is a crystalization through which it may be fronted.

The house has no curtains on the windows, no lock on the door, and no carpet on the floor. His furniture "consisted of a bed, a table, a desk, three chairs, a looking glass three inches in diameter, a pair of tongs and andirons, a kettle, a skillet, and a frying pan, a dipper, a wash-bowl, two knives and forks, three plates, one cup, one spoon, a jug of oil, a jug for molasses, and a japanned lamp" (p. 199). He calls the clearing and woods around his house, his "best room." He is angry when people pry into the house to discover his sheets to be not as clean as theirs, but pleased to find a fisherman sitting in his doorway arranging his lines. The lack of furnishings (seats) and the openness of windows and door contribute to its "all entry" quality and in some way mimic the openness and continuity of forest space.

The three chairs are for visitors: "one for solitude,

two for friendship, three for society"[4] (p. 271). Though he loves solitude he has visitors often and the house accommodates as best it can. However, he does describe one inconvenience in such a small house as being: "the difficulty of getting to a sufficient distance from my guest when we began to utter the big thoughts in big words. You want room for your thoughts to get into sailing trim and run a course or two before they make their port . . . As the conversation began to assume a loftier and grander tone, we gradually shoved our chairs further apart till they touch the wall in opposite corners, and then commonly there was not enough room" (p. 272). The description of the closed social space within the house is interesting in its humor and in its seriousness, but Thoreau does not develop the ideas. The house at Walden Pond is perhaps primarily one for solitude. He adds playfully (and recalling to us a time when "elements" are more than numbers on a chart) that "it was I and Fire that lived there" (p. 378). So in mid winter with "the moles nested in my cellar, nibbling every third potatoe," and he himself cooking one of the other two "in the ashes, after the Indian fashion" (p. 379), his nest remains warm and settled.

When spring comes, a year later, he leaves Walden

[4]J.B. Jackson, in his article "Jefferson, Thoreau & After" (in Landscapes, p. 1-9) points to the asocial nature of Thoreau

Pond to become a "sojourner in civilized life again" (p. 145); he had become more settled than he would like, and he had "several more lives to live" (p. 439); the sun is but a morning star.

What of his house then? He and we can imagine that it goes the way of all good houses: "Now only a dent in the earth marks the site of these dwellings, with buried cellar stones . . . some pitch-pine or gnarled oak occupies what was the chimney nook, and a sweet-scented black-birch, perhaps, waves where the door stone was" (p. 386-7). Is not this dent the same sort in which Thoreau first dug his cellar? Yes it is the same: burrow becomes house becomes burrow. And, in fact, the upper half of the house withstood two movings, its last known life being a garage. The only unfitting remains is perhaps the monument presently over the site.

There are thus several interesting manifestations of the dwelling-sojourning and settling worlds in the house at Walden Pond. Thoreau spends a good part of each day wandering his countryside and describes his house as often being an evening dwelling. In a flickering light

in using him as a spokesman for the Romantic utopian view of landscape: "(for Thoreau) the essential distinction between town and country - or better yet between town and wilderness - was that between society and nature" (p. 3). Jackson finds it ironic that the Romantic movement was confined primarily to the urban middle class.

we are easily distracted to shadows and obscure images on the ceiling, it carrying a natural symbolism of the heavens (it is "up"). The fireplace, which provides a flickering light, also links us to heaven. Sitting on its hearth we are somehow drawn with the smoke up through the chimney to play in more celestial matters. As a house settled in the world, it begins life as a "porch upon a burrow." By having few possessions within the house Thoreau avoids settling "down" within: being uncluttered allows us easy access to all the entrances. With windows uncovered and door unlocked distinction between inside and outside is minimized and the house becomes a part of the "living earth."

We have found the manifestation of the dwelling-sojourning and the settling worlds in the house at Walden Pond, but we have paid little attention to the tension between these two worlds: is it possible to resolve a life torn between dwelling from the journey and a more sedentary sitting? The tension first arose in Thoreau's suggestion that the "sojourner in nature" (who's primary nature was therefore dweller from the journey) held the advantage of a certain kind of freedom over the settled settler. However, Thoreau later admits that we may,

in settling, let our feet come to rest on the hard bottom that is understanding.

Seen in this way, the tension is the rather classic American one between two kinds of freedom: "sojourning" and "understanding." It is a tension that is usually resolved only by either opting for the "road,"[5] or opting for the "stand."[6] However, we see that Thoreau has retained the conflict, and we ask: has he resolved it none the less?

He has, in fact, solved the dilemma: he built and inhabited one house that in its lifetime manifested both worlds. But can a building be a resolution? It seems presumptuous and awkward to say that since "they were done" then "they were resolved." However, if we can identify more clearly "how" they were done then this might come to some sense. First, we must abandon our view of p.18 "building" as a mere thing.[7] "Building" more properly is a verb which somehow describes the life - the being - of building. In this respect we may ask, what was the being, the life, the "building" of the house at Walden Pond?

It began with a series of dwellings in the surrounding countryside. At one dwelling he found a site in an

[5]Walt Whitman in "Song of the Open Road" (Leaves of Grass, p. 117-125) and Jack Keroac in On the Road both give us an expression of their sense of freedom just by their titles.

abandoned burrow. Here he begins his dwelling which was first merely a defence against the rain. As he made progress on the construction he made some progress toward settling. Yet still, just before plastering, with cool drafts of air passing through the rough hewn beams and flickering the light the dwelling remains in all its strength. After it is plastered the house becomes comfortable and settled. Though we know that there are still evenings he dwells on the Fire, the house becomes primarily a seat around which life at Walden Pond is gathered. The house is then abandoned and its occupant becomes sojourner again, this time in civilized life.

Our first observation of what might be called the "way of building": building begins with dwelling and works its way toward settling.[8] His search for a site

[6]Vincent Scully in his Modern Architecture sees modern architects "come off the road, forsake the river, and take a stand," and calls it "the fullest realization in architecture so far of the new humanity" (p. 48). D.H. Lawrence in his Studies in Classic American Literature proclaims "Men are free when they are in a living homeland, not when they are straying and breaking away" (p. 9).

[7]Nikolaus Pevsner in his An Outline of European Architecture by beginning: "A bicycle shed is a building; Lincoln Cathedral is a piece of architecture" (p. 15), gives us an example of the more common "mere thing" kind of usage of "building."

[8]Martin Heidegger in his paper "Building Dwelling Thinking" (in Poetry, Language, Thought, p. 145-61) arrives at a similar thought through etymologically following "Buan" (to dwell) toward "Bauen" (to build), saying: "Only if we are capable of dwelling, only then can we build" (p. 160).

was initiated by dwellings in the countryside. At one dwelling he located his site by a burrow and began his building. As building progressed, the dwelling became a settling.

A second observation is that the "way of building" is not limited to a single path from dwelling to settling: as we may live several lives (and Thoreau demands this of us), so we may build several buildings. However, we can begin only by again dwelling from journey. So Thoreau tells us on leaving his first building, that he is a sojourner in civilization again; and so we suspect he may begin building again.

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We might ask, trying to be practical about the whole thing, are there "principles of design" for following this way of building? How can it be put into practice? This is the question that comes up again and again by the few people who do consider Thoreau's writings on architecture. The usual course is to compare Thoreau to his contemporary, Horatio Greenough, a sculptor and author[9] of some ideas that at least overlap with Thoreau's. The normal conclusion is that "Greenough is more practical in his advice to the

[9]His most often quoted paper is "American Architecture" first published in 1843 (Form and Function, p. 51-68).

artist," and to leave it at that.[10]

Now, what Thoreau does say are things like: "Drive a nail home and clinch it so faithfully that you can awake in the night and think of your work with satisfaction, - a work at which you would not be ashamed to invoke the Muse. So will help you God, and so only. Every nail driven should be as another rivet in the machine of the universe, you carrying on the work" (p. 445). And elsewhere: "build still more deliberately than I did, considering for instance, what foundation a door, a window, a cellar, a garret, have in the nature of men" (p. 183).

These kind of "sayings" are indeed little to go on, for architectural critics and historians. They are more like songs aimed at the heart; beaconing a way for men to let building be neither more nor less than an extension of its content: "What architectural beauty I now see, I know was gradually grown from within outward, out of the necessities and character of the indweller, who is the only builder . . . it is the life of the inhabitants whose shells they are, and not any peculiarity in their surfaces merely, which makes them picturesque; and equally interesting will be the citizen's suburban box, when his life shall be as simple" (p. 184-5).

p.87

[10]See footnote number one for examples.

Thoreau's advice is not "practical" in the sense of directly suggesting a new movement like the "stick and shingle styles"[11] (though it was built simply in stick and shingle). And we should not be disappointed that he didn't use the then recently developed "balloon frame" technique, as one critic[12] lamented. Rather the discussion is directed at us, the builders. The "practical" advice is that: we do not need interesting houses, we need simple lives.

It is true that there was no mass movement toward "simple living" with the publishing of Walden; there was no "New England Thoreau Style." However, if we must belabor the point, it is not unreasonable to connect Thoreau to the Arts and Crafts Movement of the early 1900's (a founder of that movement was Gustav Stickley, who published a magazine with the suggestive title: Craftsman; An Illustrated Monthly Magazine for the Simplification of Life) and then on to the architects of the "prairie style."[13]

But we have become "antiquarians" if we must confine our interest to Thoreau's influence on history. If we

[11]See Vincent Scully's The Shingle Style and the Stick Style, though he does not include Thoreau's house as an example.

[12]"Thoreau's Prophetic Architectural Program," pp. 15-16, T. Brown.

[13]See H. Allen Brooks, The Prarie School.

take any of what he says, at face value, it is for use now. This is the joy of the book: that he does not specify the building materials and forms we may use, rather he requires only that we use what is at hand, well. It is up to us to grow what we will from all these roots. His is a special view of history:

> "The earth is not a mere fragment of dead history, stratum upon stratum like the leaves of a book, to be studied by geologists and antiquaries chiefly, but living poetry like the leaves of a tree, which precede flowers and fruit, - not a fossil earth, but a living earth."

WHITMAN born 1819

1

A song of the rolling earth, and of words according,
Were you thinking that those were the words, those upright lines? those curves, angles, dots?
No, those are not the words, the substantial words are in the ground and sea,
They are in the air, they are in you.

Were you thinking that those were the words, those delicious sounds out of your friends' mouths?
No, the real words are more delicious than they.

Human bodies are words, myriads of words,
(In the best poems re-appears the body, man's or woman's well-shaped, natural, gay,
Every part able, active, receptive, without shame or the need of shame.)

Air, soil, water, fire--those are words,
I myself am a word with them--my qualities interpenetrate with theirs--my name is nothing to them,
Though it were told in the three thousand languages what would air, soil, water, fire, know of my name?

A healthy presence, a friendly or commanding gesture are words, sayings, meanings,
The charms that go with the mere looks of some men and women, are sayings and meanings also.

The workmanship of souls is by those inaudible words of the earth,
The masters know the earth's words and use them more than audible words.
Amelioration is one of the earth's words,
The earth neither lags nor hastens,
It has all attributes, growths, effects, latent in itself from the jump,
It is not half beautiful only, defects and excrescences show just as much as perfections show.

while her eyes glance back from it,
Glance as she sits, inviting none, denying none,
Holding a mirror day and night tirelessly before her own face.

Seen at hand or seen at a distance,
Duly the twenty-four appear in public every day,
Duly approach and pass with their companions or a companion,
Looking from no countenances of their own, but from the countenances of those who are with them,
From the countenances of children or women or the manly countenance,
From the open countenances of animals or from inanimate things,
From our countenances, mine and yours, faithfully returning them,
Every day in public appearing without fail, but never twice with the same companions.

Embracing man, embracing all, proceed the three hundred and sixty-five resistlessly round the sun;
Embracing all, soothing, supporting, follow close three hundred and sixty-five offsets of the first, sure and necessary as they.

Tumbling on steadily, nothing dreading,
Sunshine, storm, cold, heat, forever withstanding, passing, carrying,
The soul's realization and determination still inheriting,
The fluid vacuum around and ahead still entering and dividing,
No balk retarding, no anchor anchoring, on no rock striking,
Swift, glad, content, unbereav'd, nothing losing,
Of all able and ready at any time to give strict account,
The divine ship sails the divine sea.

2

Whoever you are! motion and reflection are especially for you,
The divine ship sails the divine sea for you.

Whoever you are! you are he or she for whom the earth is solid and liquid,
You are he or she for whom the sun and moon hang in the sky,
For none more than you are the present and the past,
For none more than you is immortality.

The earth does not withhold, it is generous enough,
The truths of the earth continually wait, they are not so conceal'd either,
They are calm, subtle, untransmissible by print,
They are imbued through all things conveying themselves willingly,
Conveying a sentiment and invitation, I utter and utter,
I speak not, yet if you hear me not of what avail am I to you?
To bear, to better, lacking these of what avail am I?

(Accouche! accouchez!
Will you rot your own fruit in yourself there?
Will you squat and stifle there?)

The earth does not argue,
Is not pathetic, has no arrangements,
Does not scream, haste, persuade, threaten, promise,
Makes no discriminations, has no conceivable failures,
Closes nothing, refuses nothing, shuts none out,
Of all the powers, objects, states, it notifies, shuts none out.

The earth does not exhibit itself nor refuse to exhibit itself, possesses still underneath,
Underneath the ostensible sounds, the august chorus of heroes, the wail of slaves,
Persuasions of lovers, curses, gasps of the dying, laughter of young people, accents of bargainers,
Underneath these possessing words that never fail.

To her children the words of the eloquent dumb great mother never fail,
The true words do not fail, for motion does not fail and reflection does not fail,
Also the day and night do not fail, and the voyage we pursue does not fail.

Of the interminable sisters,
Of the ceaseless cotillions of sisters,
Of the centripetal and centrifugal sisters, the elder and younger sisters,
The beautiful sister we know dances on with the rest.

With her ample back towards every beholder,
With the fascinations of youth and the equal fascinations of age,
Sits she whom I too love like the rest, sits undisturb'd,
Holding up in her hand what has the character of a mirror

Each man to himself and each woman to herself, is the word of the past and present, and the true word of immortality;
No one can acquire for another--not one,
Not one can grow for another--not one.

The song is to the singer, and comes back most to him,
The teaching is to the teacher, and comes back most to him,
The murder is to the murderer, and comes back most to him,
The theft is to the thief, and comes back most to him,
The love is to the lover, and comes back most to him,
The gift is to the giver, and comes back most to him--it cannot fail,
The oration is to the orator, the acting is to the actor and actress not to the audience,
And no man understands any greatness or goodness but his own, or the indication of his own.

3

I swear the earth shall surely be complete to him or her who shall be complete,
The earth remains jagged and broken only to him or her who remains jagged and broken.

I swear there is no greatness or power that does not emulate those of the earth,
There can be no theory of any account unless it corroborate the theory of the earth,
No politics, song, religion, behavior, or what not, is of account, unless it compare with the amplitude of the earth,
Unless it face the exactness, vitality, impartiality, rectitude of the earth.

I swear I begin to see love with sweeter spasms than that which responds love,
It is that which contains itself, which never invites and never refuses.

I swear I begin to see little or nothing in audible words,
All merges toward the presentation of the unspoken meanings of the earth,
Toward him who sings the songs of the body and of the truths of the earth,
Toward him who makes the dictionaries of words that print cannot touch.

I swear I see what is better than to tell the best,
It is always to leave the best untold.

When I undertake to tell the best I find I cannot,
My tongue is ineffectual on its pivots,
My breath will not be obedient to its organs,
I become a dumb man.

The best of the earth cannot be told anyhow, all or any is best,
It is not what you anticipated, it is cheaper, easier, nearer,
Things are not dismiss'd from the places they held before,
The earth is just as positive and direct as it was before,
Facts, religions, improvements, politics, trades, are as real as before,
But the soul is also real, it too is positive and direct,
No reasoning, no proof has establish'd it,
Undeniable growth has establish'd it.

4

These to echo the tones of souls and the phrases of souls,
(If they did not echo the phrases of souls what were they then?)

I swear I will never henceforth have to do with the faith that tells the best,
I will have to do only with that faith that leaves the best untold.

Say on, sayers! sing on, singers!
Delve! mould! pile the words of the earth!
Work on, age after age, nothing is to be lost,
It may have to wait long, but it will certainly come in use,
When the materials are all prepared and ready, the architects shall appear.

I swear to you the architects shall appear without fail,
I swear to you they will understand you and justify you,
The greatest among the them shall be he who best knows you, and encloses all and is faithful to all,
He and the rest shall not forget you, they shall perceive that you are not an iota less than they,
You shall be fully glorified in them.

Walt Whitman, Leaves of Grass, pp. 190-194.

BUILT FORMATIONS

"completion is death"
-Maurice Smith

CHICAGO, Feb. 3rd, 1887.

My dear and honored Walt Whitman:

It is less than a year ago that I made your acquaintance so to speak, quite by accident, searching among the shelves of a book store. I was attracted by the curious title: Leaves of Grass, opened the book at random and my eyes met the lines of Elemental Drifts. You then and there entered my soul, have not departed, and never will depart.

Be assured that there is at least one (and I hope there are many others) who understand you as you wish to be understood; one, moreover, who has weighed you in the balance of his intuition and finds you the greatest of poets.

To a man who can resolve himself into subtle unison with Nature and Humanity as you have done, who can blend the soul harmoniously with materials, who sees good in all and overflows in sympathy toward all things, enfolding them with his spirit: to such a man I joyfully give the name of Poet--the most precious of all names.

At the time I first met your work, I was engaged upon the essay which I herewith send you. I had just finished Decadence. In the Spring Song and the Song of the Depths my orbit responded to the new attracting sun. I send you this essay because it is your opinion above all other opinions that I should most highly value. What you may say in praise or encouragement will please me, but sympathetic surgery will better please. I know that I am not presuming, for have you not said: "I concentrate toward them that are nigh"--"will you speak before I am gone? Will you prove already too late?"

The essay is my first effort, at the age of thirty. I, too, "have sweated through fog with linguists and contenders." I, too, "have pried through the strata, analyzed to a hair," reaching for the basis of a virile and indigenous art. Holding on in silence to this day, for fear of foolish utterances, I hope at least that my words may carry the weight of conviction.

Trusting that it may not be in vain that I hope to hear from you, believe me, noble man, affectionately your distant friend,

Louis H. Sullivan

A letter quoted in Sherman Paul's Louis Sullivan: An Architect in American Thought, pp. 1-3.

The arts and crafts movement tried always to see Nature as alive: creation, designing, and building of things became a process by which our world could participate with and celebrate this fact. Ruskin is often considered the "founder;" he, in turn, referred to the Gothic[1] *for deeper roots.*

Clarence Glacken has shown[2] *that the dominant medieval attitude toward Nature was: "that man, blessed with the faculty of work, assisted God and himself in the improvement of an earthly home" (p. 175). Thus Nature was a "Book" to be read by all; observation and study led "to a greater understanding of God . . . [and] of God's plan for a designed world."*

Coming to America with this background, the earliest English colonists considered their job to be one of

[1]See Sir James Hall's Essay on the Origin, History, and Principles of Gothic Architecture, 1813, in which the origin of Gothic buildings is projected to be in bound saplings.

[2]Clarence Glacken, Traces on the Rhodian Shore; see especially pp. 175, 203, 213-225.

"completing," "planting," and "peopling" the wilderness.[3] *The colonists outwardly dropped these ideals, when the size and difficulty of that project became apparent; self sustainance demanded the whole of the day's labor.*

One might date the American arts and crafts movement from Whitman (born the same year as Ruskin). It is more common[4] *to start with: the furniture of Scott (1876), Herter brothers (1880), and Coolidge (1887); and the windows of LaFarge (1877) and Tiffany (1779).*

The earliest of these shows Gothic "style" influence. However, later work gets back to observation of Nature. For example, Tiffany's windows[5] *and George Harris'*[6] *buildings of saplings, logs, and rocks, are done in photographic image of the landscape. Others, find inspiration in Nature that is not so literal: Wright says: "Nature needs from man not imitation but interpretation."*[7]

Wright begins his essay "Some Aspects of the Past and Present of Architecture" with the sentence:

[3]See Chronicles of the First Planters of the Colony of Massachusetts Bay, especially pp. 271-276, 380, 558.

[4]See The Arts and Crafts Movement in America, ed. by R. Clark.

[5]ibid. p. 18, 19, 24.

[6]See California Design 1910, pp. 110-111.

[7]In Mumford's Roots of Contemporary American Architecture, p. 136.

"The land is the simplest form of architecture." (Future, p. 41)[8] and then develops the notion of land:

> "It is continually changed by cosmic forces, themselves a form of change. Contrasted with these mineral masses of earth structure - this titanic wreckage - are placid depths and planes of mutable water or the vast depth-plane of the immutable sky hung with evanescent clouds. And this creeping ground-cover of vegatable life, more inexorable than death, is rising from it all, over all, against all, texturing with pattern, infinite in resources, and inexhaustible in variety of effect. This is the earthly abode of the buildings man has built to work, dwell, worship, dance, and breed in." (Future, pp. 42-43)

The earth of "continual change" is for Wright not only the "abode of building," but "the simplest form of architecture." It is an earth in which things are alive and growing, creeping and rising. Wright metaphorically returns to "primitive man" to get to the essence of the situation. Wright says:

> "Materials in primitive architecture were always most important. The character of all the earlier buildings was determined more by the materials available for construction than by any other one thing. Wood, brick, and stones always said "wood," "brick," or "stone," and acted it." (Future, pp. 47-48)

Wright thinks we have lost this ability to use things as "things" and tries to regain this ability with the old materials, and discover how to do so with the new materials.

Besides being an earth of things which form architecture, the earth of "continual change" is also the "abode of

[8] The Future of Architecture

buildings," in which among other things, Wright says, we "dwell." We recall from Chapter 3 that Thoreau "dwells" p. 96 at night in the heavens. Wright, we shall see, "dwells" during the day on earth.

Wright is similar to Thoreau in his interest in the fireplace as an integral part of dwelling:

> "It comforted me to see the fire burning deep in the solid masonry of the house itself. A feeling that came to stay." (Natural, p. 32)[9]

We are reminded of Thoreau's statement that "It was I and Fire that lived there," but we note that for Wright it is a feeling that came to stay." It is not a passing dwelling leading to the heavens "beyond even where Cassiopea sits." Rather, Wright is firmly tied to the horizontal plane of the earth; he wishes to "stay" there.

It is true that Wright at least acknowledges that vegetation "rises" and on occasion calls the house a "tree."

Wright demands in building "the new house":

> "First ... get rid of the attic ... Next, get rid of the unwholesome basement, yes absolutely - in any house built on the prarie." (Natural, p. 32.)

Except for topographic considerations the sense of the vertical - of a connection to the heavens - is minimized. We recall that Thoreau's small house had both a garret and a cellar, a chimney which was often used as a vertical

[9] The Natural House

link, and rustic roof-beams that playfully distracted our attention upward.

Wright's sense of the heavens seems to be centered around the sun and day (the distinction is perhaps lessened when we recall the last line in Walden: "The sun is but a morning star."):

> "Earth becomes more and more the creative creature of the sun. It is a womb quickened by the passions of the master sun." (Future, p. 44)

We recall his reference to "the vast depth-plane of the immutable sky hung with evanescent clouds;" it is essentially a daytime view.

For Wright, to "dwell," is to dwell on earth. It is principally a daytime activity (the "comfort" of the "fire burning deep in the solid masonry of the house," may have been that it brought the sun into the night). His strong interest in the horizontal suggests what this dwelling is from. Wright says:

> "I see this extended horizontal line as the true earth line of human life ... In that lies such freedom for man on this earth as he may call his." (Natural, p. 58)

The same sense of the journey - of wandering and freedom
p. 87 on earth - that Thoreau found important, we find in Wright. This "extended" line of journey on earth is an extension from where we stop or "stay" in our dwelling. toward this extent:

> "Architecture must now unfold an inner content - express 'life' from the 'within'." (Future, p. 138)

This sense of dwelling as a building (recall Thoreau's literal "tent") which unfolds its content toward a kind of extended freedom forms the basis of Wright's "organic architecture":

> "This sense of interior space made exterior as architecture, working out by way of the nature of materials and tools ..." (Natural, p. 28)

This brings to mind Thoreau's notion of settling "in" the living earth. Wright demands literally that the "room space itself must come through." (Natural, p. 44)

"Organic architecture" becomes an alternative to Thoreau's call for "simple lives, not interesting architecture," as Wright elsewhere (Natural, p. 15) equates what is "organic" with "simplicity." In creating architectural forms that might grow he then claims "I could draw inspiration from Nature herself" (Natural, p. 20).

Thoreau saw this act of settling in the living earth as a simple way of life that led to the understanding of "reality." For Wright the "unfolding" of an "inner content" through "organic architecture" leads to the difference between "mere building" and "architecture""

> "We must believe architecture to be the living spirit that made buildings what they were. It is a spirit by and for man, a spirit of time and place." (Future, p. 59)

The more social Wright calls architecture "a child of the spirit of man" (Natural, p. 39), and we recall that he called himself "an American child of the ground and of space." This tends to tie man, architecture, and earth into a dense, untangleable knot: the spirit of man, time, and place. This, for Wright, is the goal.

So we find Wright exhibiting a way of building that retains a tension between two kinds of place: dwelling (content) as stopping or staying, and the horizontal freedom of the journey (extent). The tension is partially resolved by letting the inner contents organically settle (extend partly out and stay there) into the living earth. It is through this organic process that building can be the living spirit of man, thus exhibiting "reality."

an addenda
call it PROJECTIVE BUILDING

(projectile (improvisational (improved

agn vs. the NON-Projective,
you idiots who still
are lost
who think you're some long
lost Beaux Art bulb holding
out, but your bulbs are brok
en / you see your windows
fall out

Let's begin agn:

Building now, 1976, if it is to go ahead, if it is to be of essential use, must, I take it, catch up and put into itself certain laws and possibilities of the foot and hand, of the being of the man who builds as well as, at the same time as, inhabits. (The story of this continent, has been just this, this projective race across the country, building frontier lines, whole rooms coming right straight immediately out of the doing of it / of inhabiting the spaces. With the frontiers gone, with things beginning to settle, we lose the trail, we seem to be losing the action, so it's time to bare the tread, show how the projective has been with us from beginning till now, and how it's time that it is MORE with us.

I'd like to / I want to do two things: first show how it is that I think that projective building has been with us pretty much from the beginning all the way up to / thru / and including / now, with a few words as to why it's so persistent. And second, to just define it again, or at least try to, so that we really know it's there, even if it's just some slogan to sing while doing it.

I would say, principally, the "projective" moves. You've heard earlier abt how either way you slice it, the Americas have been a moving place: movement west to get east, or east to get

west depending which way you like to see it, depending where you think you're coming from. But the fact is that the projective moves FAST. The movement west from Plymouth wasn't your normal expanding, organic kind of thing. Rather pretty clearly we can admit that it was more like a javalin being thrown. The locamotive was a javalin, it was projective, it wasn't just some son or daughter moving out to the next section (although it could be). The story of our continent has been this. just, the exploration, trapping, and inhabiting of the space. So the early building, for the large part was built right there in the action of it. Using sod, or logs, or shakes, or mill sawn lumber, or concrete blocks, as long as the country was projective, there was still new territories to throw yourself off into, we largely built projectively. There are the thousands of indigenously built and used places that were built by the indweller, built and measured by the hand and foot with what was available. It was done, largely, well.

The big problem came in 1890, as Fred Turner tells the story, with the end of the frontier. Except for an occasional romp to the North Pole in search of Tropical Forests, or an occasional trip to the Moon, it has been established that the world is CLOSED. One big place.

But just because the world is closed, it means that / the closing of the world doesn't stop the projective work. But the projective / it's just that the emphasis is taken away from the continent, and ocean size beasts, and what happens is we can / are free to explore our own home once again. It frees us of the mania that we've got to get away.

So projective building, 1976, switches sizes, instead of opening up the Oregon Territory, we can open up our houses. And I think this is what the shingle stylists, and Wright, and the Green Brothers and the better American builders have done.

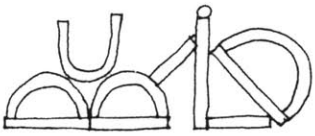
To say what, to define it a bit, this projective building, the same rules apply: the kinetics of the THING, a building is energy transferred from where the builder got it, by way of the building itself to, all the way over to, the indweller. The rule of course is that once building in the FIELD - once putting yourself in the open - you go no other track but the one the building under hand declares, for itself. .....

Charles Olson, "Projective Verse", in Selected Works of Charles Olson

"In spite of the fact that he and his entire family were breaking ground in the fields the whole day long, a great sod house shot up beside the wagon...

He had begun work on these walls immediately after he had returned from the trip east to the Hallings' with the potatoes. The lime had been mixed according to directions, and spread over the walls - three coats of it, no less; now the sod hut shone so brightly that it dazzled the eyes ... Before the snow came, Beret thought it delightful to have such walls; but after there was nothing but whiteness outside - pure whiteness as far as the eye could see and the thought could reach - she regretted that he had touched them. Her eyes were blinded wherever she looked, either outdoors or indoors; the black-brown earthen floor was the only object on which she could rest them comfortable; and so she always
p.105 *looked down now, as she sat in the house ..."*

pp. 48, 193 Giants in the Earth, by Ole Edvart Rolvaag the story of Norwegians settling on the Dakota prarie, Anno Domini 1873, two hundred fourty-three years following the settlment of Salem.




bwldnng
budding buddha
bhav being bowerbird
build
bild
the lobe of the b
budding out
a leaf
building blocks
understanding of reality
under

Rock & Log Cabin, with light infill

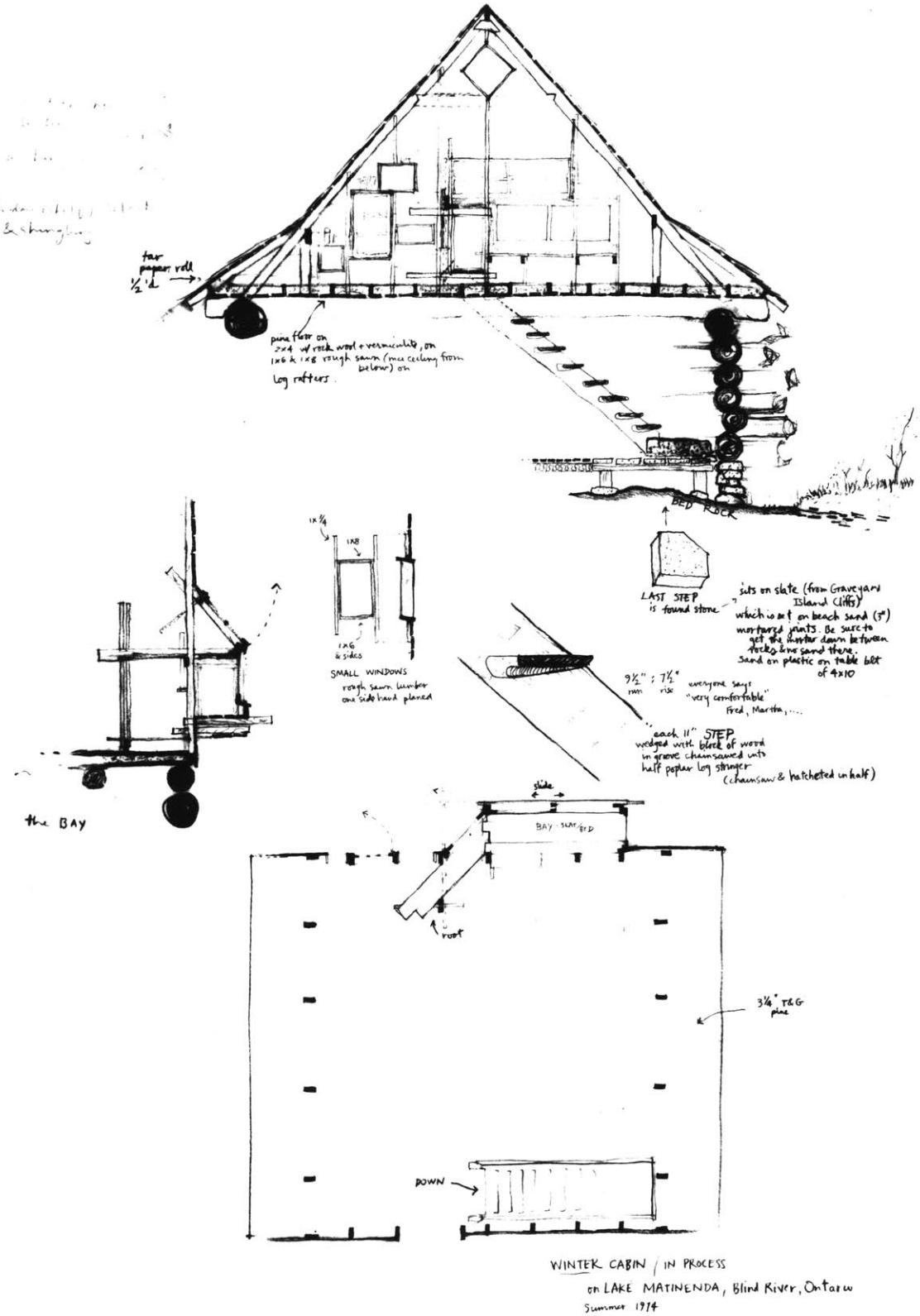
of rough sawn lumber, old windows, and cedar shakes, is a family project in process five years, at the edge of Lake Matinenda, near Blind River, Ontario.

The front gable with bay window, was built during the summer of 1974. The intention was to push some of the inside out into the sun; the 45° angle runs north and south. The overall dimensions of the bay were generated from seat height (14 inches), available windows, and some 1X6 and 1X8 rough sawn lumber.

Small frames contain colored glass windows. The glass was manufactured (bottles cut to half-cylinders and flattened in a wood burning furnace) and assembled, on site. Page shows the windows (from left to right): "Abstract" by Dorothy, "Trout" by Dave, "violets" by Aron, and "Thistle" by Dave. The "Sun and Moon" by Margot, in the upper diamond is not shown.

Cedar logs were chain-sawn to 28 inch lengths, quartered with wedge and sledgehammer, handsplit once or twice more with a froe, and nailed to the front gable wall as the exterior finish.

Drawings were done at the end of the project.

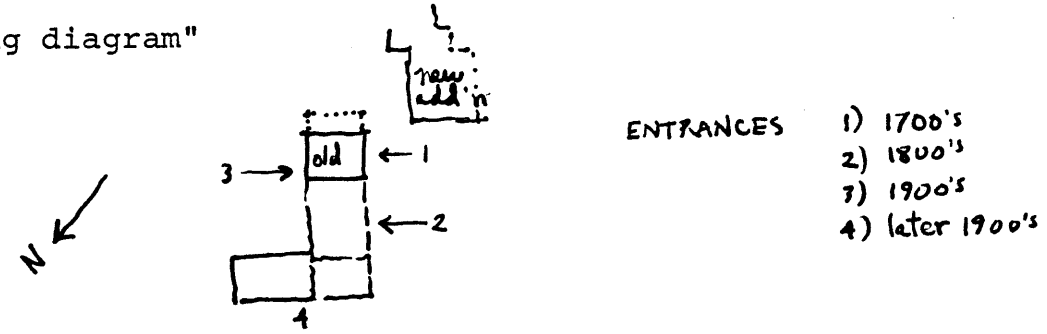


WINTER CABIN / IN PROCESS
on LAKE MATINENDA, Blind River, Ontario
Summer 1974

140

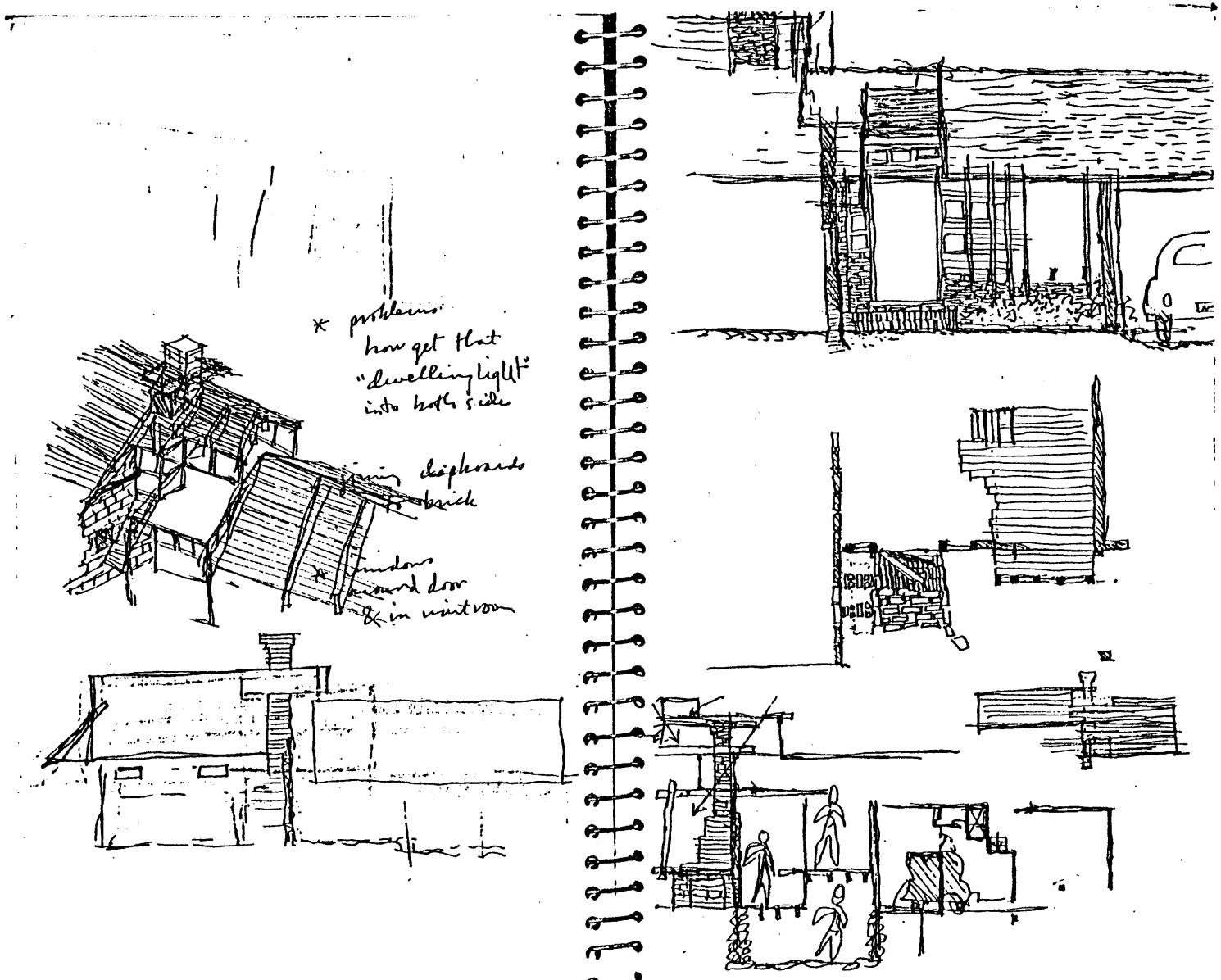
Psychiatrist's Work Space: house addition

for Dr. Myunghee Kim-Reimann & family at 272 Short Hills Ave., Springfield, New Jersey. The oldest, one story part of the house, was built in the late 18th century. The double pitch roof, clapboards, outside "piazza", and gable-end chimney are typical of the "Dutch Colonial" tradition. Page 143 shows a photograph of the the house taken in the early 20th century. Shown also are the two story additions to the north-west gable end of the old house. An ell was also added to the north-east. The suspected changes of "front" entrance to the house, are shown in the accompan ing diagram"



The required uses of the addition include: office (separate areas for older and younger patients), waiting room, toilet, and two-car garage.

The 1976 addition is built parallel and to the south-west of the old house. The intention is that it is an extension of the older house complex (in roof direction (NW-SE), pitch (9:12), and material (wood shingles); some 9/6



PROJECTIVE KIM SKETCHES October 1974

windows; clapboards), but with some freedom and life of its own (placed within the "field" of the old house, owner's rock garden between new and old, some 4:12 and flat roofs, casement and special windows on SW, fireplace stands within the 1½ story office).

The plan (page 146) shows the major distribution entering on the SW, passing beside a raised screened waiting area, deflected into the office by a masonry core, passsing beside a raised deck, and going out the SW side again. Access from the old house, is across an open deck.

Drawings were done during the spring of 1975; the local building inspector required some alterations of siting and construction. Building began in August. I was on site working beside the local building contractor, Jim Saldutti, about 10% of the time. Most details were worked out during those times; the owner participated in many of those decisions.

A leaded glass window of "Rock, Trees, and Sun" was
p.35 made, and placed in the NW gable during April, 1976; Dr. Kim began inhabitation shortly there-after.

EXISTING DWELLING

WINTER AREA for PLANTS

WORK AREA

GARAGE

WASH & Rdom

UTILITIES

FINISHED FLOOR

MAIN OFFICE

WAITING ROOM

PLANTER

All numbers & dimensions from MELRISE DOOR & WINDOW CORP Stoneham, Mass. catalog 8-74

WINDOWS

A ~ 15 Light 9/6, 7'-9" glass, outside dimensions 2'-0⅝" x 4'-5"
B ~ 12 Light, 1'-9", 2'-0⅛" x 3'-5"
C ~ 6 Light, 1⅜" single casement sash, 1'-4" x 3'-0"
D ~ 9 Light Barn Sash, 9"x12", 2'-6⅝" x 3'-3⅝"
E ~ to be detailed
F ~ Primed Anderson Casement "WIN" righ. opg 2'-2" x
G ~ Primed Anderson Casement "IN" righ. opg 1'-9⅝" x
H ~ 8 Light, 1⅜ single casement sashs, 1'-4" x 4'-0"

DOORS

P ~ M-2014, 1⅜" x 2'-8" x 6'-8" dutch door
Q ~ M-2013, 1⅜" x 2'-8" x 6'-8" dutch door
R ~ double sliding "Barn Door" to be detailed
S ~ M-107, 1⅜" x 2'-8" x 6'-8"
T ~ M-2014, 1⅜" x 2'-6" x 6'-8" dutch door
U ~ M-1053, 1⅜" x 2'-6" x 6'-6"
V ~ Interior Door in Douglas Fir, 2 panel, 1⅜" x 2'-0" x 6'-6"
W ~ Interior Door in Douglas Fir, 2 panel, 1⅜" x 2'-4" x 6'-6"
X ~ Anderson Primed Wood Gliding Door W6068 righ opg 6'-2⅛" wide x 6'-10⅜" high

FRAMING

Note: all heights to finished floor or top plate

2x4 sills set in sill caulk
2x6 T&G Decking sits on sill or 3"x8" Beams (brick piers from footings to proper height), or as specified on plan
2x4 frame walls, 16" O.C., 3 studs to a corner
½" plywood sheathing (ASSE. Grade Marked DFPA)
3½" fiberglass insulation in walls, aluminum face to exterior, vapor barrier to interior
2" rigid insulation along foundation UNDER decking and on inside face of existing cinder block

ALL FRAMING MATERIALS, including sills, sides, studs, plates, & joists to be kiln-dried, gauged, marked, straight Western Hemlock, const grade EXCEPT posts & beams colored RED on plan, to be old timbers (from Donald Buchsbaum, Basking Ridge, N.J. or equiv), or if not available selected construction A (grade marked) kiln-dried Douglas Fir (belt-sanded before fixing).

1/4" = 1 foot

FRAMING 1

WITH FOUNDATION HEIGHTS & WIDTHS

ALL FOOTINGS UNDER POSTS: 24"x24"

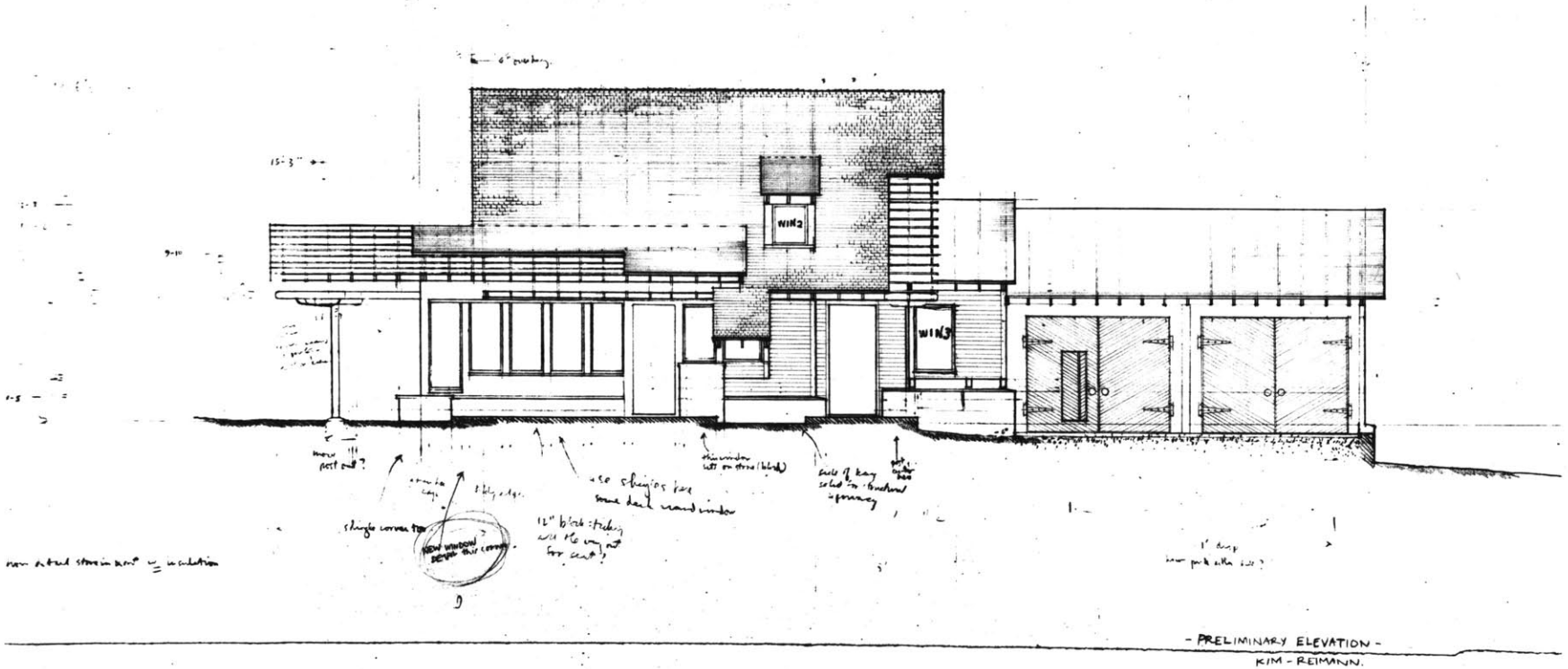
NOTE [8] = LOWER LEFT CORNER GRADE

[8.0] = EXISTING GRADE SHOWN AT CORNERS IN [8.0]

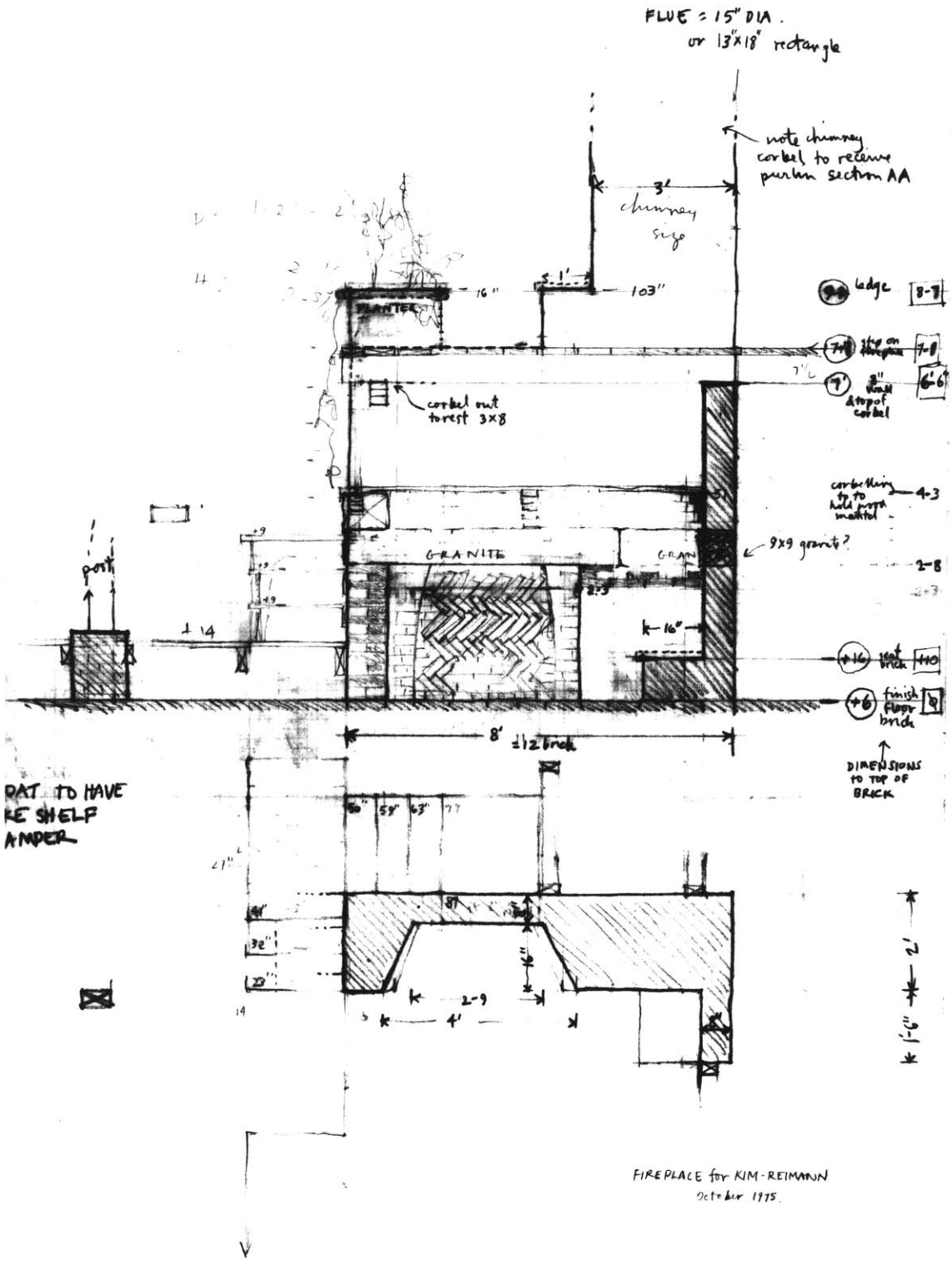
Addition to KIM / REIMAN residence
272 Short Hills Avenue
Springfield, New Jersey

by Aron FAEGRE
Dept of Architecture
Mass Inst of Tech.
Cambridge, Massachusetts
(on the native ALGONQUIAN)

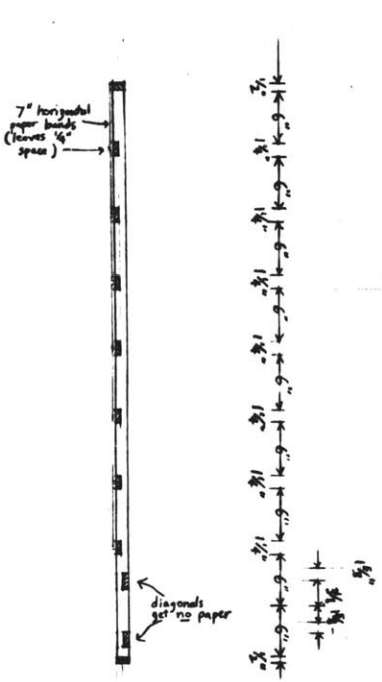
JUNE 1975



- PRELIMINARY ELEVATION -
KIM - REIMANN.
summer 1975

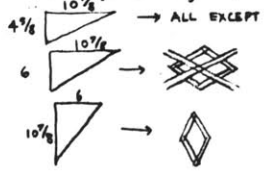


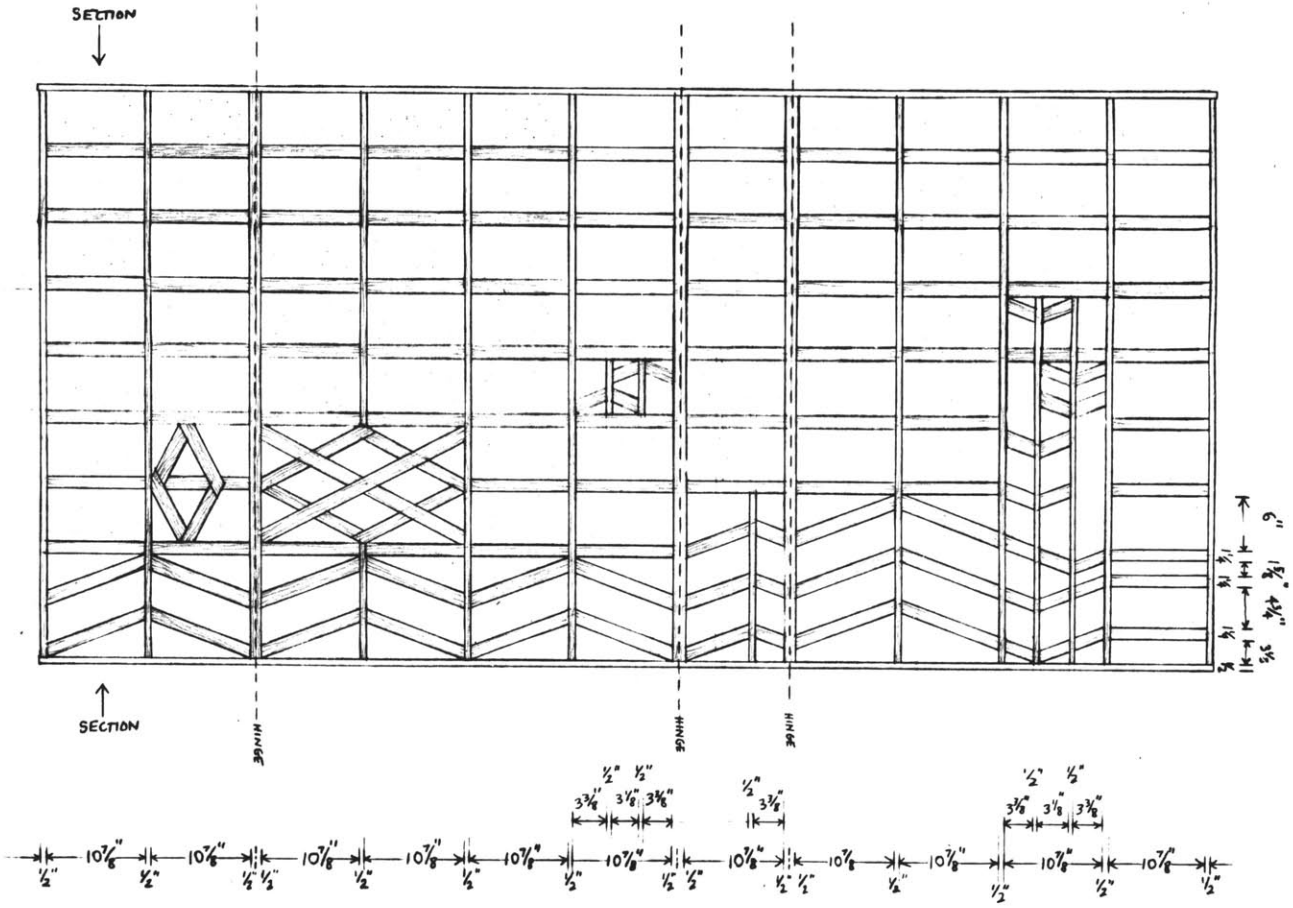
FIREPLACE for KIM-REIMANN
October 1975



SECTION

NOTE : there are three angles for diagonals ;





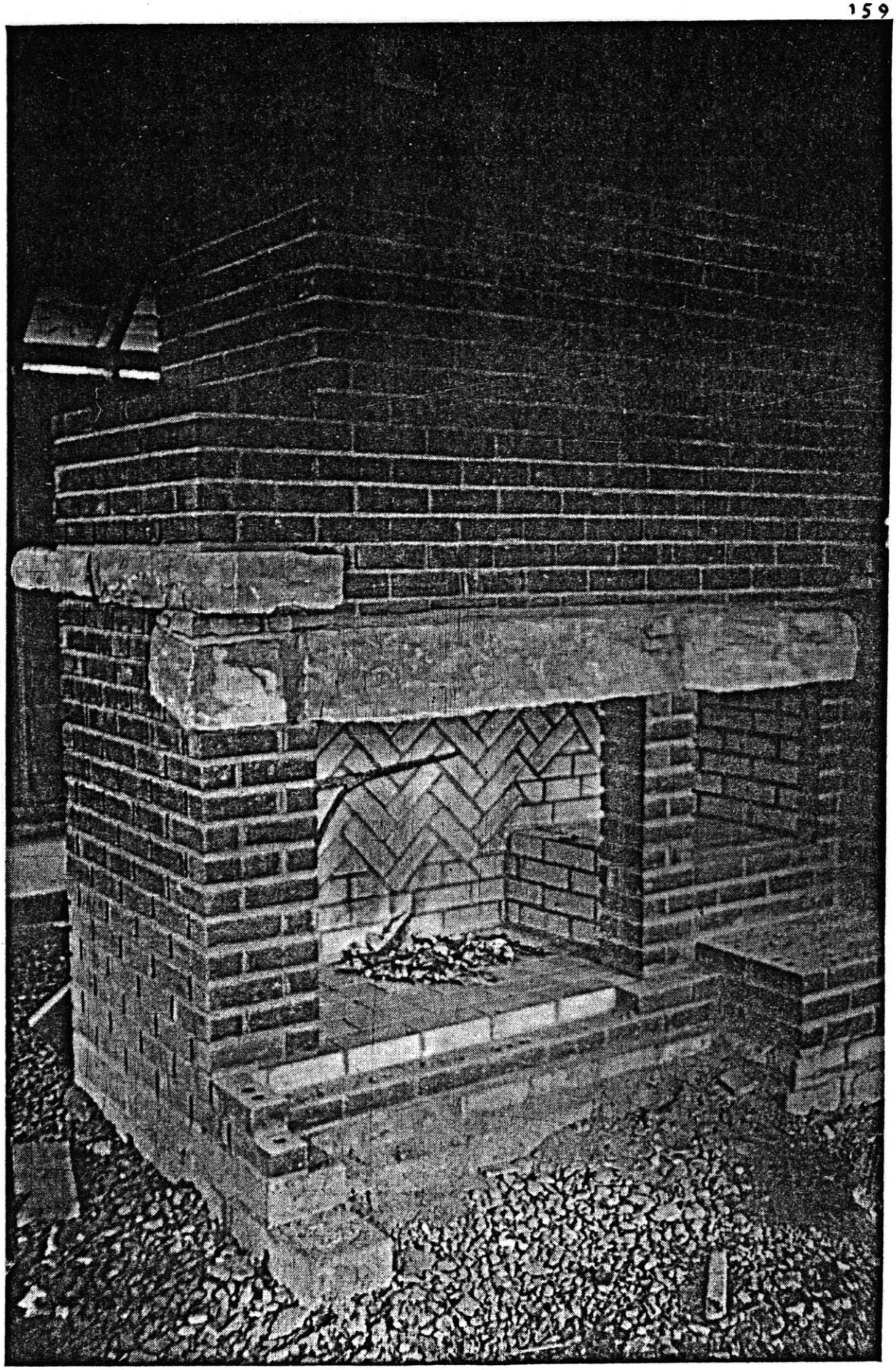
ELEVATION of EXPANDED SCREEN

SHOJI SCREEN CONSTRUCTED of ½" x 1¼ MAHOGONY
for WAITING ROOM - HALL 3/4" = 1' : APROX.

KIM - REIMANN OFFICE RESIDENCE

November 1975.


750-98A



House for a Family of Four

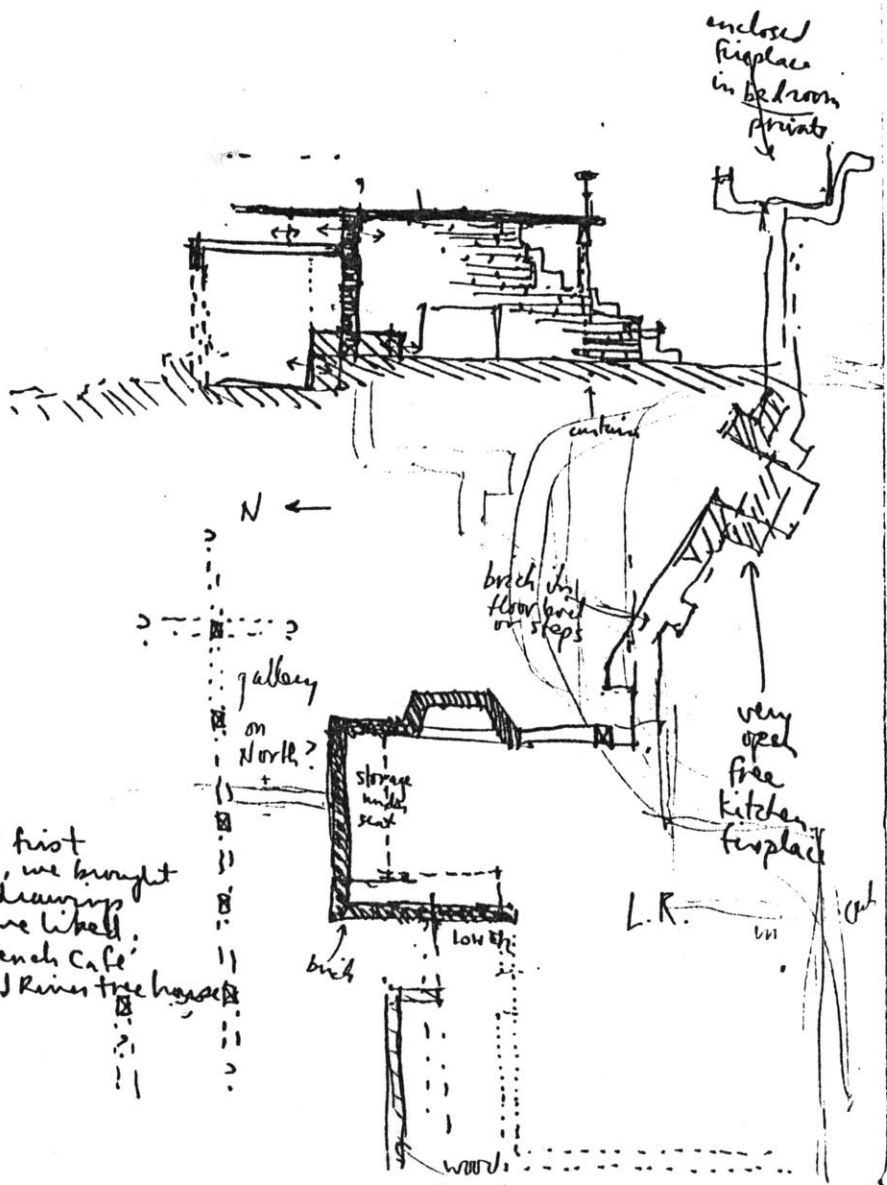
in Perth, New York (near Amsterdam) is a project in process. The clients live presently in Springfield, N.J. where they saw and liked the Dr. Kim addition. They asked me to do the design of a house fo their farm in upstate New York (they plan to move there, next year).

For the project I intend to work in the "language" p.19 of the north-east: building materials of masonry and wood will be assembled in continuity with the larger landscape; the "New England Colonial" house organization (around a masonry core) will be relaxed into a "field" relationship; p.82 I hope that there will be some timber framing, leaded glass, and light screens. Some of these would use graphic p.35 language to tell stories, as the Kim screen (unbuilt, see p.206 page 149) shows "Rocks, Turtle, Trees, & Bird flying".

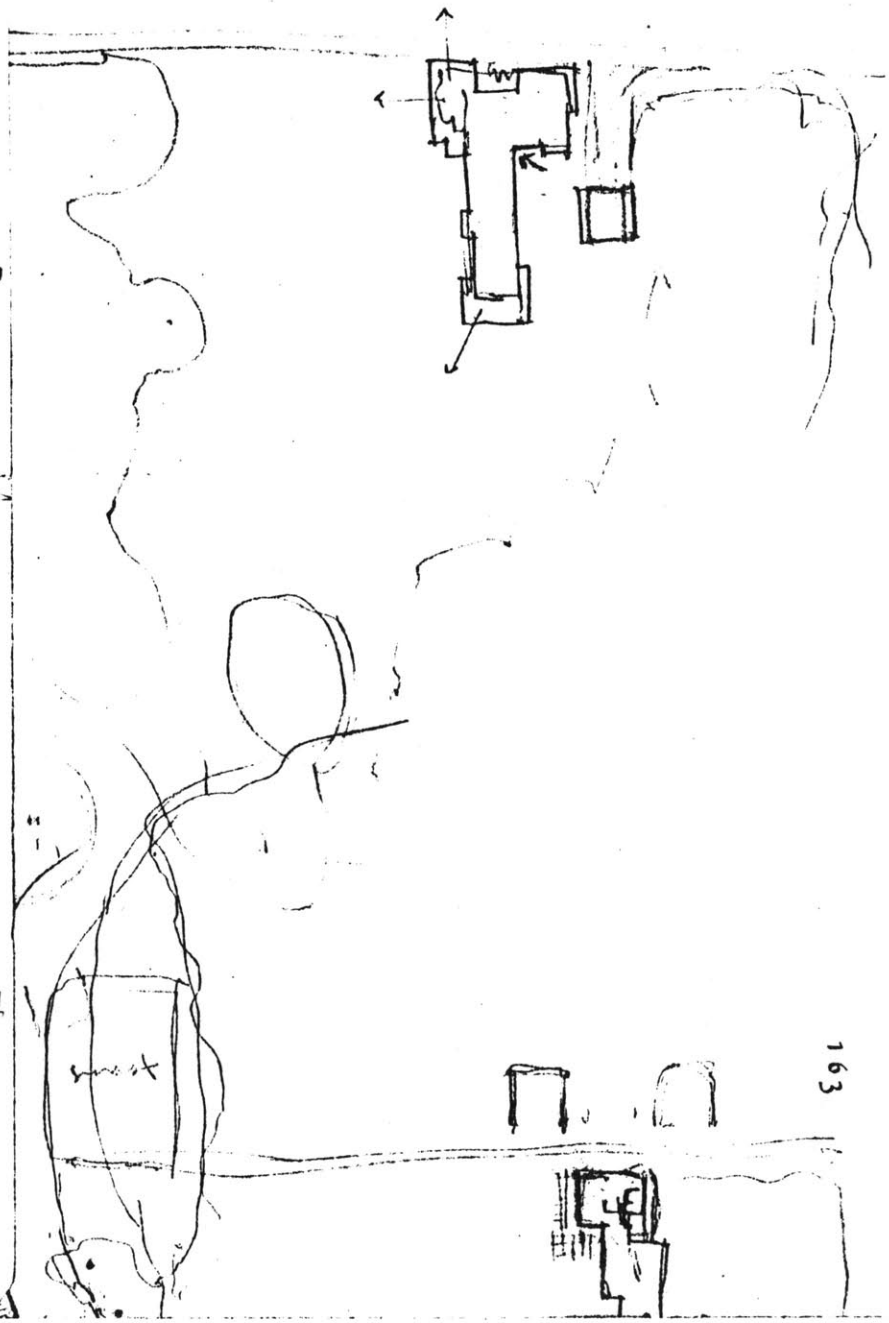
In the following pages, I will try to show the process I followed in designing the house; every step has been difficult; there should be easier ways to go at this. I show the processes, that others might be forewarned of some of the issues to consider.

Some initial sketches show me considering fireplaces, and the site relationship of the house to 1) the farmroad, 2) the woods, and 3) the pond. Study of M. Smith, Wright,

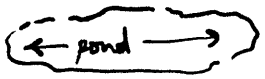
use same fireplace detailing
in diff parts of bldg .... tie massing together by form



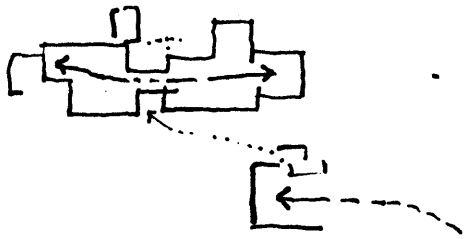
Mauriced Frost classes, we brought in little drawings of what we liked. I did French Cafe' & Blind River tree house.



New English, Japanese, and Greene brothers houses, led to the notions of: 1) entrance from the north, and 2) organization of the house into two parts on either side of the entrance, each with its masonry core. My description of the initial design (page) to the clients was by letter (page 165).



Maurice's criticism of this first plan, was that the direction of use was not as continuous as it might be. Thus, driving into the garage, walking from garage to house, moving from one part of the house to another, all these could be related - so that they would add up in "field"



organization to one "large building".

The clients, in their return letter, were not yet convinced by my suggested site plan; and they required more and less space in some rooms. They liked that the fireplace in the "family" room could be seen from the "breakfast nook", but they were concerned that it was not so visible from the family room.

In my second plan (page 169) the room dimensions are

February 25, 1976

Dear Bob and Ginny,

Enclosed are a site plan and a house design for that site. The following is the reasoning for those drawings:

You had suggested that the house be sited at the edge of the pasture where the trees clear to the left (where I now show "stalls"). However, on my site visit in mid-February I found the pond an extremely positive feature of the landscape. By placing the house near the water, views of: water birds, ice formation, moon and sun reflections, animal visitors, et. cet. can become potential experiences of daily house-life.

The first disadvantage, of course, is that the horse pasture becomes more distant. A solution to this would be to bring the road leading to the south fields, in toward the pond, and with it, the horse fence. The stalls could at some future date, be brought down to this locale so that the horses would tend to be in this area. Also, some of the trees could be cleared along the existing road so that from the house there would be a clear view to about half of the pasture as a whole. By leaving the largest of those trees the horses (& riders) would have places to lie down in shade, that would not just be on the edge of the pasture. The stalls could then be close by. If a gate were put across the road south from the garage, the pasture could include land right up to the pond so that the horses could drink there (on the other hand it might be nicer to leave that area for fields).

The other disadvantage I see, is that the driveway becomes longer - more problem during winter. A partial solution is to make a "short-cut" path NW from the house- a trail for use by horses, ski-mobiles, or skis during the worst snow storms.

The house itself, is designed as a modern version of the colonial New England house. In those houses from the 17th century, the fireplaces with connected walls and stairways, make the real privacies of the house. I have developed this scheme in a similar, but less geometrically rigid, way. The red signifies masonry materials (combination of concrete block, bricks, and stone). They are fireplaces,and walls extending from them - they do most of the dividing of the interior spaces. The yellow signifies "penetrable wall", i.e. built of clapboards, shingles, wood paneling, clear and stained glass materials (the details to be worked out if you find the general plan acceptable) on a concrete block foundation.

From the garage to hall entrance there would be an open but covered walk-way. There are also two adjacent mud entrances from each side of this hall. The house then is in two connected pieces - each around a fireplace-masonry mass.

The southern piece is the more active - containing kitchen, family room, and breakfast nook. The two boy's rooms are above this. The bedrooms are small, but they have a common storage space between them - and there is a study downstairs. This half of the house has good views of the pasture and pond.

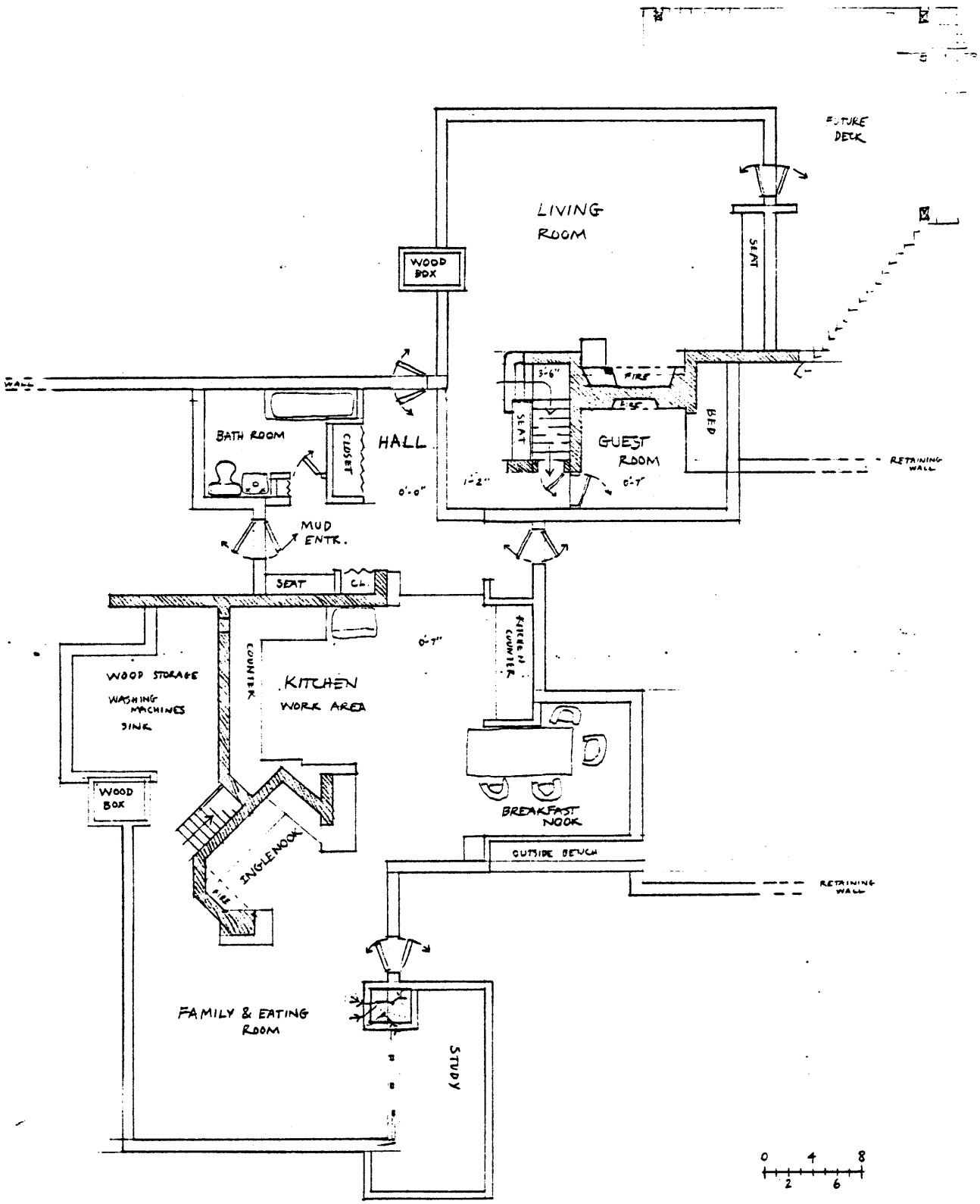
The northern piece tends to be for the "grown-ups" and tends to be quieter. The living room views into the woods, with some view of the pond. One would probably find this a place for bird watching. It would be a room for a more formal gathering. The guest room has a view of the pond. Above, would be the master bedroom, dressing area, bath, and studio - all with good views of the pond and pasture.

Notes:
- -A possible sauna-screened porch-storage area is shown by the pond.
- -The wood boxes can be opened on inside and outside so that wood can be gotten to the fire areas without being carried through the whole house.
- -I have left the kitchen in the open so that its life and light are continuous with the other lively parts of the house.
- -Most upper rooms have some views down into the living spaces below, especially the boy's rooms.

Have I interpreted your needs correctly? Do you find the plan interesting? If you could study it carefully and write what does not seem to suit you - I will carry on with more detailed design and another site visit.

I hope to be in your area before too long, but am not sure when. If you would like me to come down to discuss the plan - I will do so. Until I hear from you, hoping you're all in good health (I've just recovered from the "one week flue"),

Sincerely,

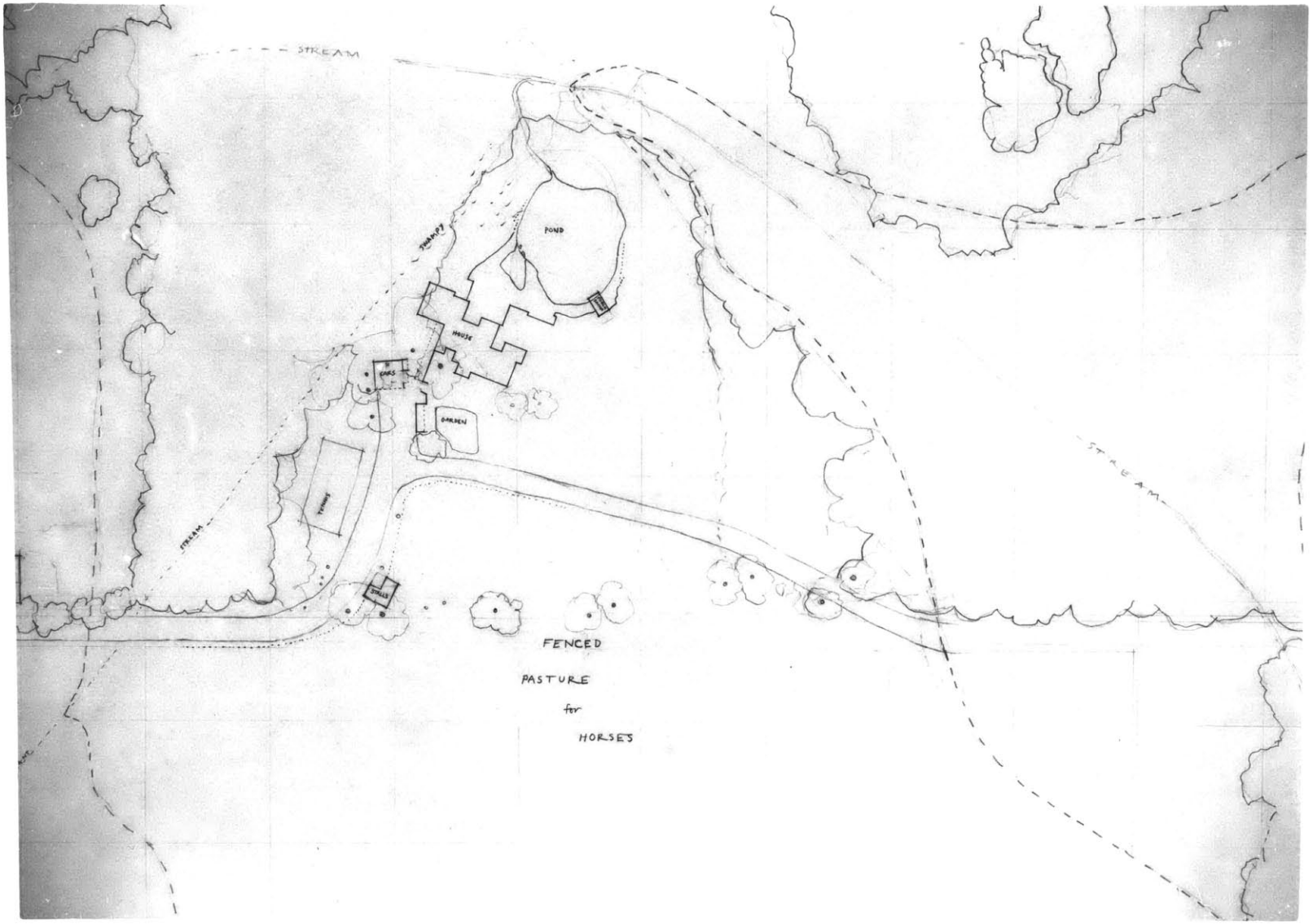


FIRST FLOOR PLAN

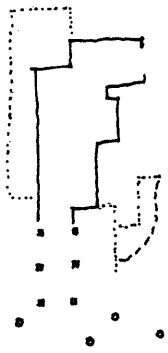
FURDA HOUSE

1

Aron Faegre Feb '76


STREAM
SWAMP?
POND
HOUSE
GARDEN
STREAM
STREAM
STABLES
FENCED
PASTURE
for
HORSES

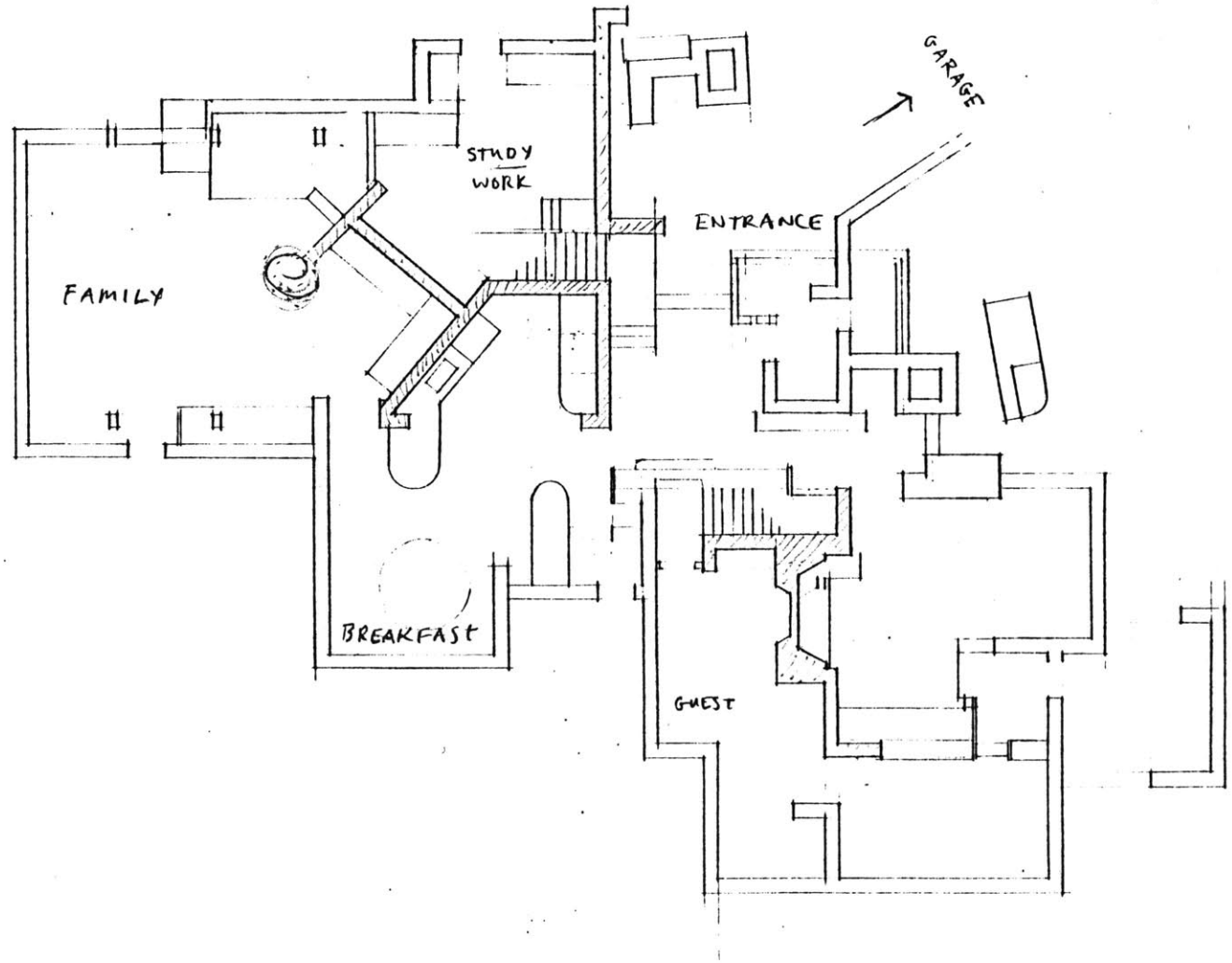
more reasonable (if not too small), the entrance is a kind of "side step" into the house. The criticism here, at mid-term, by Maurice was that it was getting "too dense", as if it is on an urban site. On a large piece of land, one would expect that the house would extend itself, so that its size would begin to match that of the larger landscape. He recalled Yeon's work in this respect.



In Pencil Points, September 1945, I found a description of John Yeon's "house in Northern California",and in House and Home, April 1954, a description of three houses (especially interesting is the Swann house). They showed Yeon working with a strong sense of direction from garage through house, and into the woods (at the place of continuity, "posts" = "trees"). The houses are organized in blocks of privacy, like "rocks", with distribution and public spaces passing around them.

My plan 3 exhibits my attempt to "straighten out" the house. In addition I was trying to get the entrance and stairs to become an active place; water falls & mountains & sunshine. I did not like the plan in its overall rigidity.

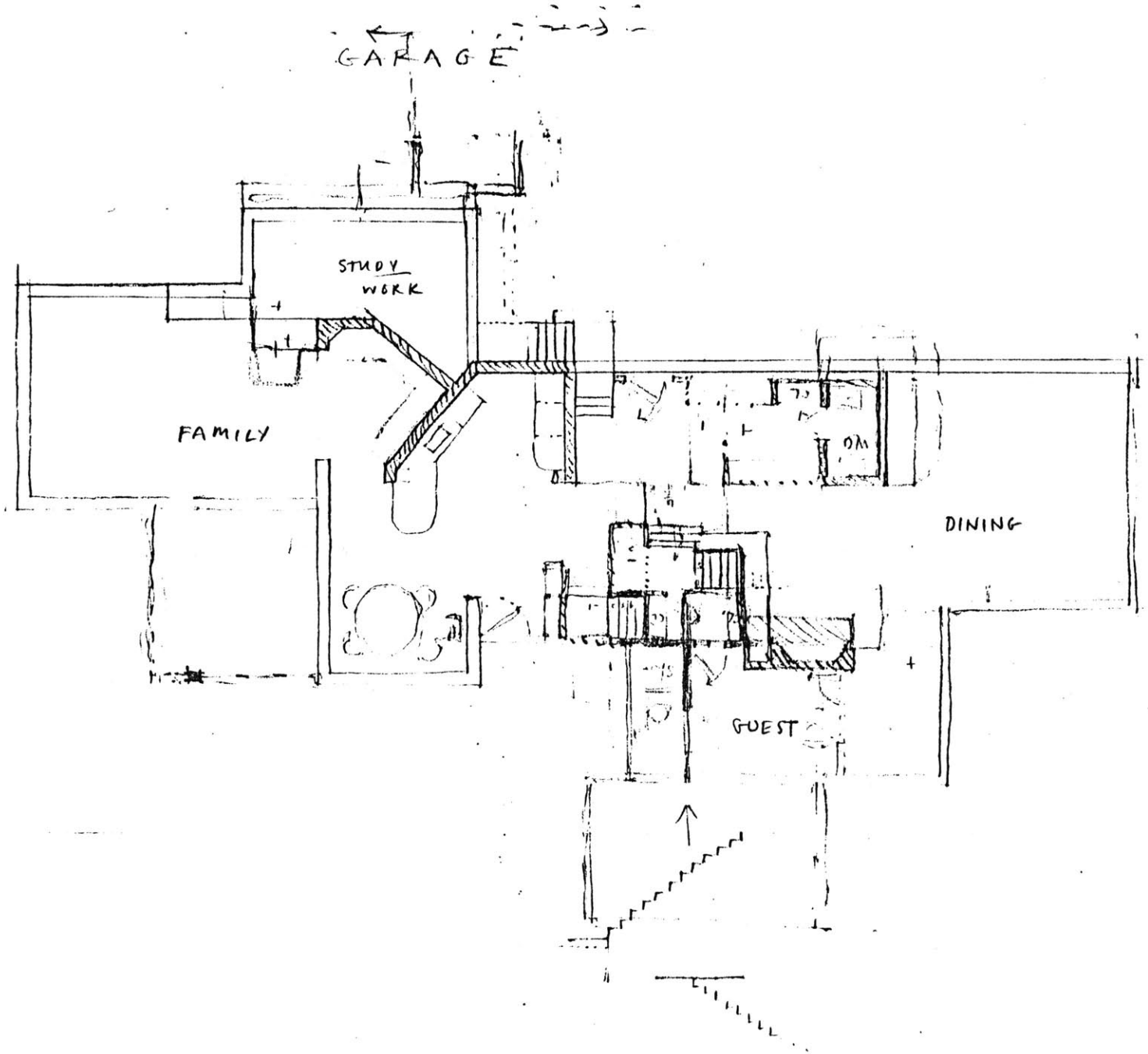
I reset the goals for my site planning (page 172): with ground, increase the sizes of the site, i.e. where the ground goes up "dig in", where it goes down "stand up" - these with the rule for the norm: go with the contours. As



PLAN 2.

"the house"
"the arbor"

16 March 1976



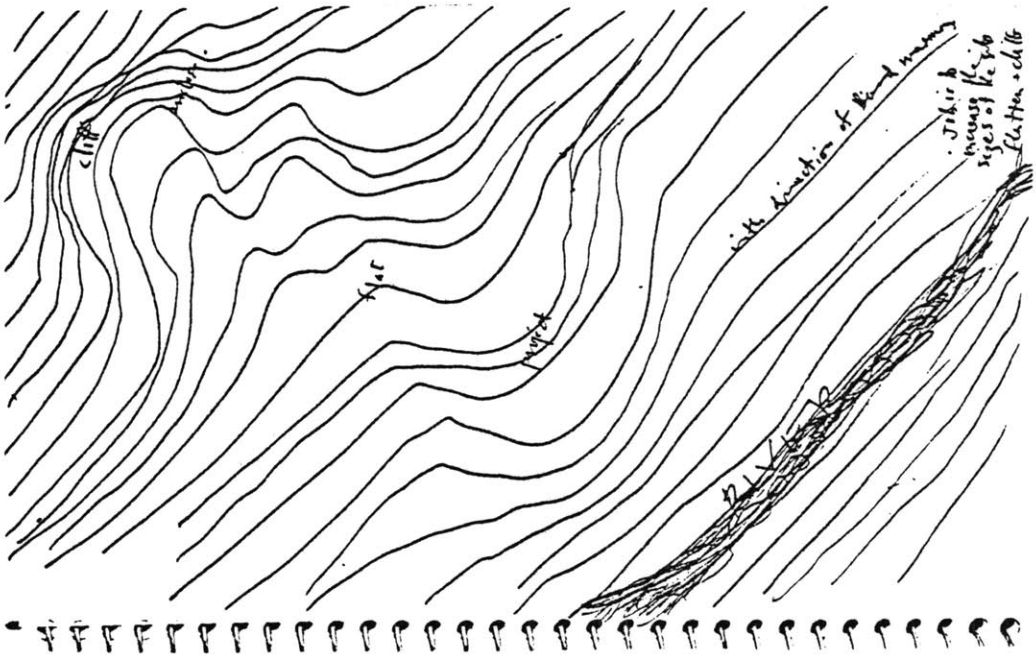
PLAN 3

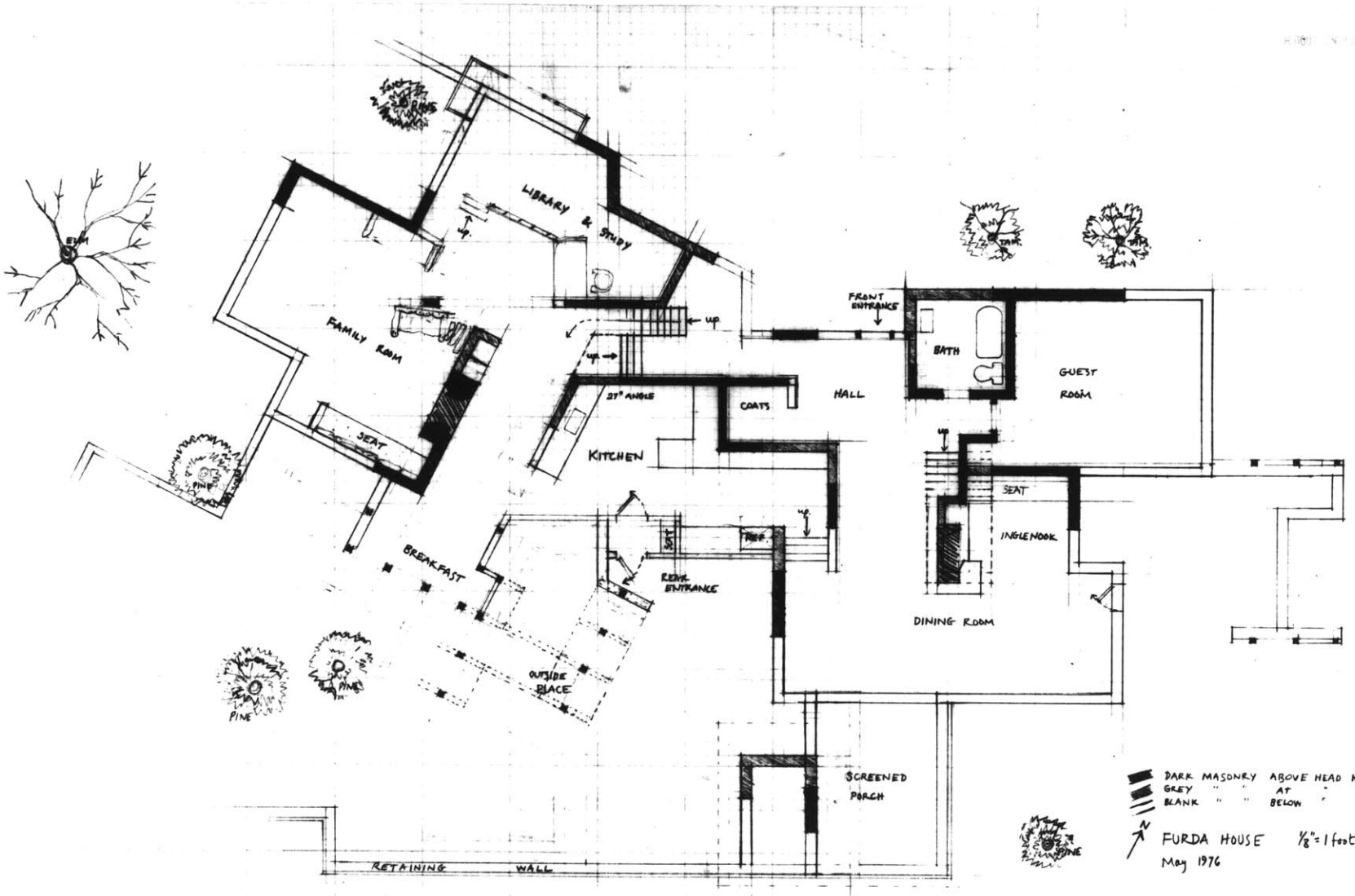
for wood frameworks, again increase the sizes on the site, and use them in continuity with the forest. The direction of their addition to the forest would not be parallel to the edge of the forest. Rather, because forests are BIG, wood frameworks should touch and move the edge of the forest out, but with the condition that one should be able to walk continuously along the edge of the old forest framework (as the squirrels, et. al. will use the opposite direction above).

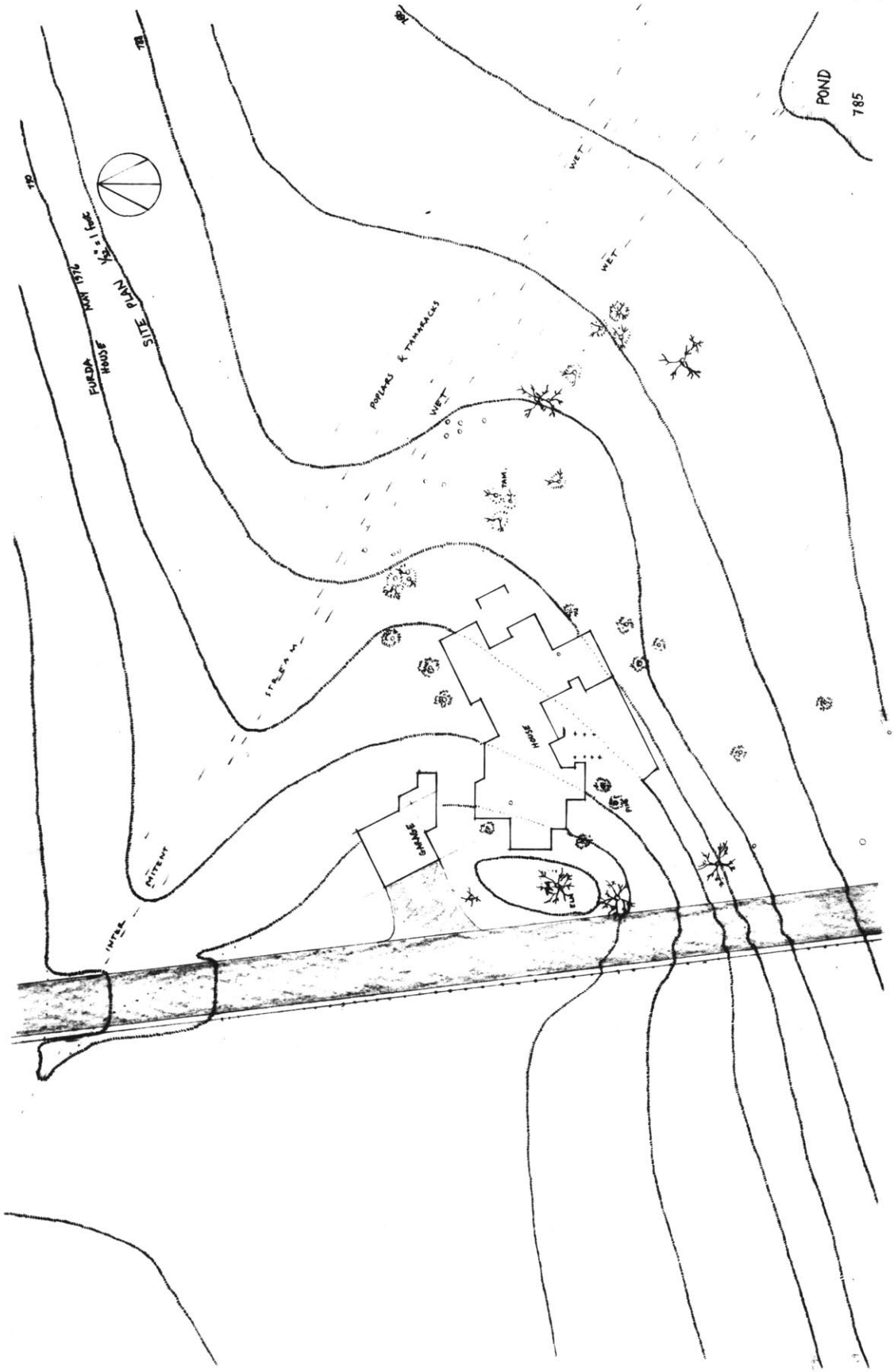
Spring had arrived and another site visit showed that my proposed site of the house was a swamp. So the prospective site moved back to the road. During this visit we staked out the tentative plan of the house (though I knew I would change the plan, the siting could be kept).

The most recent site plan (page 174) shows the west end of the house "digging in" beside a local rise in the ground; the rest of the house extends in the more prominent direction of the land (see page 167). I had slept by the pines on the SE side of the rise, in my tent, on my spring site visit; with the house extending that hill around the NW, that place beneath the pines would remain, as the nicest room.

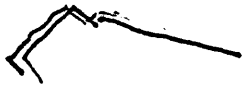
In an earlier form of this plan 3, Gunter had some criticism that the larger shape of the house was not pro-



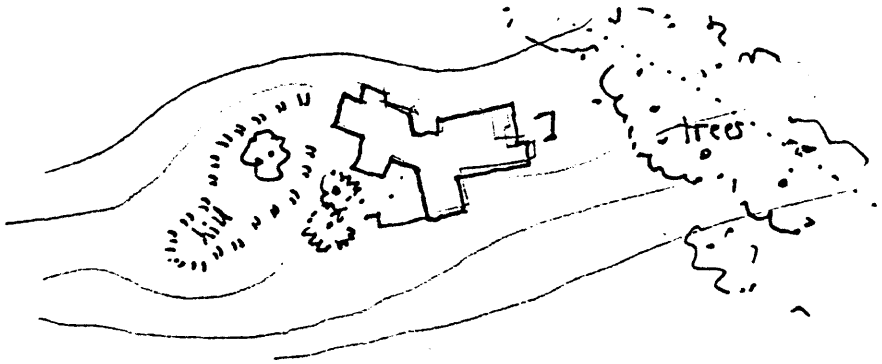

ELM
PINE
LIBRARY & STUDY
up
FAMILY ROOM
SEAT
PINE
up
FRONT ENTRANCE
BATH
GUEST ROOM
up
27° ANGLE
COATS
HALL
KITCHEN
SEAT
INGLENOOK
SINK
REF.
REAR ENTRANCE
BREAKFAST
DINING ROOM
PINE
PINE
OUTSIDE PLACE
SCREENED PORCH
RETAINING WALL
PINE
DARK MASONRY ABOVE HEAD HEIGHT
GREY " " AT " "
BLANK " " BELOW " "
N
FURDA HOUSE
May 1976
1/8" = 1 foot


FURDA HOUSE
SITE PLAN MAY 1976
1" = 1 Inch
POND
785
WET
WET
WET
POPLARS & TAMARACKS
TAMS
STREAM
HOUSE
GARAGE
PATIO
PATIO
INTRE
INTRE

tecting" or "enclosing" to the south,

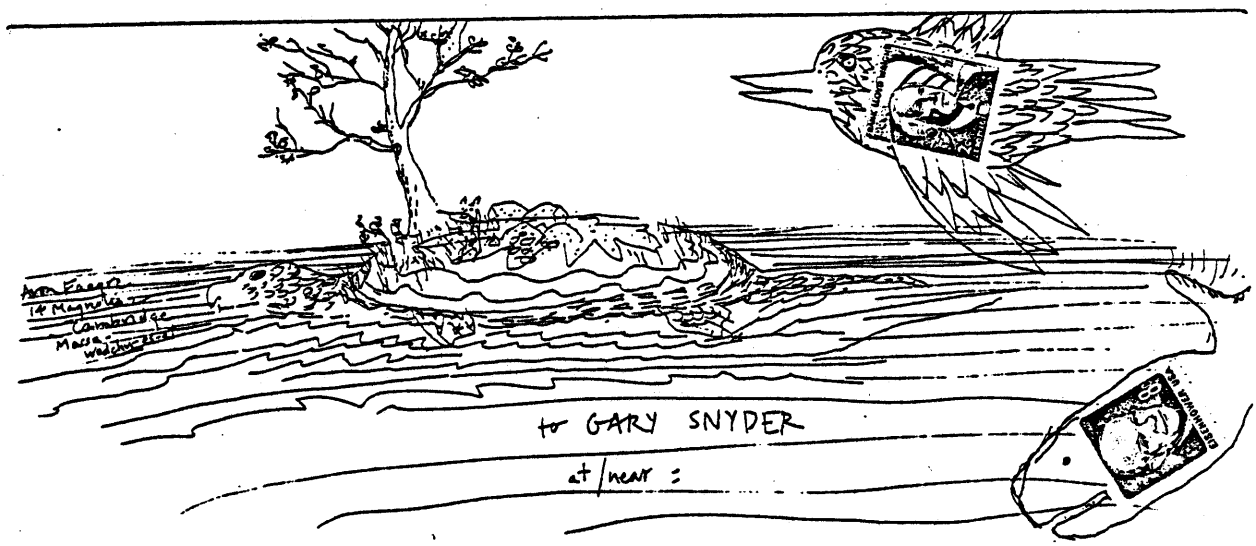


he preferred to turn the plan upside down. In the plan shown here, I have tried to use the porch and retaining wall as definition to "enclose" and "protect" the south side around those pines.



For anyone interested in seeing the outcome of this project, more detailed drawings (when they are done), will be left with Maurice. thank you

STORY OF THAHSU



There once was a young person named Thahsu who went in search of knowledge for building. He felt the warm sun in the chilly air. From which direction he would receive his knowledge, he did not know. So he walked east - toward the great rising sun.

As he walked, he watched the trees send forth their morning buds, which turned to lobes and leaves. *Thirsty, he stopped at one old grey, mossy shingled house, for water. After greetings were exchanged he gathered his courage, and asked: "Can you tell me who knows the most about building? Who can teach me how to build?"*

The couple who had brought him the water were surprised by the question coming from such a young boy. Seeing his serious eyes, and the pack on his back, they thought in silence; they replied, finally: "No. . . We wouldn't know who to turn to ourselves, if we needed help. There is a town further down the road. It must be filled with people who know such things."

Thahsu thanked them. As he turned to walk back to the road, the woman's eyes lit up: "Oh yes. There once was an architect named Frank . . . uh . . . ." The old woman stopped and looked to her husband. "What was his last name?"

They could not remember the name; Thahsu continued on the road.

Thahsu had walked some distance down the road when a car came zipping by. Suddenly it screeched to a halt, reversed itself, and quickly came back to where Thahsu stood. The driver offered him a ride, but Thahsu declined. He enjoyed the slower pace of traveling on foot - studying the trees with branching trunks, cows, and small blooming violets. However, Thahsu did ask his question: "Can you suggest to me, who knows the most about building, and where I could find him?"

The driver said he knew just the man Thahsu must be speaking of: "There is a great architect named Mr. Pie. He makes his buildings in the shapes of slices of pies - tall pies, short pies, squat pies, square pies. My favorite, of course, is his famous mincemeat pie. It is just being completed, you'll see it just ahead. It's not as big as some of them, but you know, its shaped just like an enormous hot, steaming slice of mincemeat

pie." The man paused, and swallowed. "Oh, I'm getting hungry just telling you about it . . .I must be going now. Take the right branch in the road, you can't miss it, at the third stoplight go left, you'll see it just ahead on the left, after . . . ." The car was already racing away down the road and Thahsu could not catch the last bit of the sentence.

This had not made too much sense to Thahsu, because everyone knows you can't eat a building, so what good is it making one look like a pie. But he had determined to follow up any lead he got - so he went right when the road branched: off in search of Mr. Pie.

But when he came to the next town people said "but why do you look for Mr. Pie, when everyone knows that Mr. Starling is the great architect?"

"But who is he?" asked Thahsu, "I've never heard of him."

"You know how a starling steals any shiny object he can find (which was true), well this Mr. Starling takes these things and builds them into his building. You see shiny pipes, and tubes and all kinds of wonderful things sticking out of his buildings."

To Thashu this seemed a bit interesting. It was true that you had to look at buildings, so if they look

shiny and bright and glitter in the sun, that should be really quite nice. He set off on the open road again, only this time in search of the starling.

The very next town he came to, he asked for Mr. Starling, but to his surprise people just turned around at the sound of the name, and huffed and puffed a little, maybe said under their breath "why how ridiculous. . ." and walked away. When this happened five times in a row, Thahsu just asked: "who would be the person to consult about building."

Then everyone who had walked away suddenly smiled and said: "Oh you just must see Mr. Iceman. He actually builds models of his buildings from ice. Yes that's right: cold, frozen, clear ice. They aren't very useful, and its true that he doesn't even care much (so he says) whether people build the real buildings or not; but the ice models are just the "cat's meow." And you know you can see right through them."

This went on and on, as Thahsu went from town to town. As you can imagine, it didn't take long for him to become completely confused: was he searching for icecream pies, or was he looking for an adventurous starling. One person had even suggested that he must go looking for the Mice.

Thahsu was now very tired. The sun had set on his first day of searching, and he had gained nothing.

Quite suddenly, from the nearby woods came a loud yelling and howling; a band of people dressed in woven grass clothes emerged from the wood and descended upon Thahsu. Before he had time to say a word, Thahsu found himself completely bound - from head to toe - with ropes made of grass fiber.

When the binding was complete, a man who was apparently chief of the band, came approached and said: "Wekinasq Aboquosinash."

A young girl came forward. "I'll translate the chief's words," she said. "He has told you, that you must recall the birds which nest in trees, because we now shall place you in a small nest of branches and twigs - up in one of our old sacred trees. There while resting upon a reed mat, you will learn what is understanding."

They placed Thahsu up in a tree, upon a small platform. There was silence.

Then he heard a voice say: "Stay in your nest until I call for you to come down." Thahsu did not know who said that.

The sun rose and fell four times. As it rose the fifth time, and he felt himself growing weak, he heard

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the voice call: "All right, come on down."

Thahsu felt physically weak from the fasting, but strong in heart. He looked down and his bindings were gone. He looked under his nest, and there stood a badger; the grizzly grey coat with a white stripe on its back, a black nose, a black patch above each eye and below each ear, and long white claws were unmistakable.

"Hey, come down from your nest. Let's go." yelled badger again.

Thahsu climbed down the trunk of the trees and introduced himself: "I am Thahsu; I am searching for the ways of building."

Badger smiled, and then laughed. He looked intently at the little boy, and then began: "Building is nothing more nor less than being, which we see as growth in plants, in animals, and in mountains. One gains the powers of building when he finds the being of his self." *He was silent for a moment, and then continued: "My last student found his self within the plants."*

"Who was your last student?" asked Thahsu.

"Have you heard of Henry David Thoreau?", asked Badger. Thahsu knew he had written a book called <u>Walden</u>. *"It was just my burrow" Badger said, pointing to a hole in the ground, "upon which he first set his house. There*

is no bedrock in the area - so he came to me. When he says in Walden 'I thought of my house as but a porch upon this burrow' - he is not trying to be funny - he is referring to me."

Badger continued: "I was his Guru, you know. He would often sit quietly at his doorstep and speak to me. In fact, each day while he was building his house, he would consult me to see if all was OK. . . . I told him everything he knows."

"How long did he study with you?" asked Thahsu.

"At the end of the second year I booted him out. From then on he was on his own two feet," Badger replied. "You might say that Walden is the record of his conversations with me."

Thahsu asked Badger: "Will you take me as a student?"

Badger walked to the burrow entrance. "Come along. Your studies begin in the burrow; there you will learn the secrets of Protoland." Badger walked into the entrance, and disappeared.

Thahsu put all questions aside, and followed right behind. He ran as fast as he could, but the tunnel was quite narrow and it was difficult to get along. Badger was gone from sight and sound. Thahsu came to a fork in the tunnel and was not sure which way to go. A white

rabbit came running up one of them. At the junction it stopped, checked its large silver pocket watch, and began to dash down the other tunnel.

"Oh Mr. Rabbit, can you tell me how to find Badger?" called Thahsu.

The rabbit stopped, turned around and asked: "If you mean the Geologist, then follow me." Rabbit then dashed off, hopping and leaping the way rabbits do.

Thahsu continued deeper and deeper into the burrow. He rounded another turn of the tunnel and was set to give himself up as hopelessly lost, when the corridor began to widen.

One side opened into a large well lit room, with four or five seats around a blackboard. In the room were piles of concrete blocks, bricks, tiles, lumber, nails, and all kinds of building materials. There were work benches, each with drawers of tools. At each sat someone at work: chiseling, sawing, glueing, weaving, . . . at one desk sat a person cutting colored glass for leaded windows. To the side, sat Badger.

Badger turned around, and puffing on his odd looking curved pipe said: "Come along now, we've been waiting for you. Find a seat so that we can begin."

"Will you tell us the story of how life in Protoland

started" asked Mole, "I never heard the story. I was absent last time you told it." River Rat chimed in too: "Yes, I missed class that day too, please Badger will you tell it to us?" The truth was that about this same time of spring a year ago when Badger had related the story, both Mole and Rat had skipped class to go boating.

Badger considered for a moment, and decided he would tell it. "With our new Student, we might best begin this way. Especially since he's already expressed an interest in seeing the Tortoise shell. I'd have to tell the story of Protoland for it to make sense."

Walking over to the big fireplace, Badger called for someone to get firewood. The three Mice collected paper to start the fire. They crumpled it up so it wouldn't burn too quickly and put a few small twigs on top of that. Beaver brought in some birch logs; first he put small ones around the paper and then bigger and bigger pieces on top. Thahsu helped place one big log at the back. One of the Mice brought a straw from the broom, and Badger lit it by holding it in the bowl of his pipe, while taking several deep puffs to make the contents glow red. "Now everyone gather around" Badger said. "Find a cushion and make yourselves comfortable."

The little Mice took some paper and made themselves

a little nest. Beaver took a chair off to the side near the woodbox, and picked out a piece of aspen to chew on while listening. Thahsu took a seat on the stones beside the fireplace. The other animals all found places to settle themselves into. Badger brought a rocking chair over near the fire, and prepared to begin.

They heard a pitter-patter coming from down the tunnel "Here comes Raven, late again" said Rabbit. There was a sudden flurry of activity as the Mice pulled their nest underneath a chair. Raven would sometimes take little friendly 'pecks' at the Mice, when he got excited. Only this was not so much fun for the Mice since Raven was seven times as tall as them.

Raven half-ran and half-flew into the room, and apologized: "Sorry I'm late. I got into a caw - caw - cawnversation with relatives and couldn't get away."

Badger started: "Protoland hasn't always been as it is today, as we see it. It didn't always have mountains and forests and streams. It didn't always have all of us living here. And long, long ago, before our parents, or our parents' parents, or long, long even before their parents were born, there was just one big Ocean. It was similar to the oceans we see around our continents today, except that it was not clear water. The water was very dark and

thick. It was like mud except that it was so slippery you couldn't pick it up.

For a while this was all that there was, but then after a while in some places the water got thicker and in other places it got thin. Sometimes where the mud got thicker, it might become shaped like an animal. When this happened, like if it went into the form of a trout it would think: "Now I will become a trout." And it would start swimming around and there would be a trout where the mud had been, and clear water would remain left over.

Soon, this sea became filled with many kinds of fish, so the fish said to the mud, "why don't you become birds now." So then Mallards, Coots, Snow Geese, Trumpeter Swans, Great Blue Herons, and all the other water birds came into being. By this time all the mud in the top of the sea was gone. So there were all these Fish and Birds swimming in the water. The Birds swam on top of the water and Fish below.

All this time there were only specks of light in the sky, which was not enough light to really see by. In fact, they would often bump into each other. Also they wished to see what they looked like. So the Birds decided they should have to fly to find light. So they asked, "how can we fly?" And the fish below said, "if you spit the

salt in your bodies out into the water, you can fly." So all the birds did this, and they could all fly. This made the water salty like we know it today. Only one bird, the little black Coot, didn't spit all its salt out, and it has ever since had a taste still like a fish.

All the birds took off from the water. They all flew in the sky at once, and circled so near each other that each felt the other's wings. From the sky, the sound of all the wings beating was deafening, and there were so many that even the little specks of light were darkened. Then they all flapped together and the wind blew the biggest bird, the Crane, so high that he could reach one of the specks. He brought it down in his beak until it was so large and hot he could no longer hold it.

Now the sky was bright; as the birds all flew overhead they could fly together, and make group dances in the sky.

The Loon was the first to drop back to the surface of the water. "This is all very fine," he said. "We have a bright sunny sky to fly in, and there is clear water to swim in. It sounds ungrateful, but I want a place to stand on that is solid."

Mallard landed on the water beside Loon and agreed with him, "Yes we need some land on which to make our

nests, but how can we make it?"

All the birds gathered around, and they did not know. The Crane, who had flown the highest to reach one of the stars, said that he wasn't sure, but thought he saw more mud far below them under the clear water. The big Snow Goose said, "I am the biggest and swiftest, let me dive for the mud."

She swam faster and faster and began flapping her wings and took off and flew higher and higher till she had almost disappeared. Then she dove straight down, faster and faster: the tip of her beak broke the water and her body followed through. She dove deeper and deeper. On the surface they waited the whole morning. When afternoon came and she had not returned they began to worry. Finally, however, the Loon with its head under water, saw her coming back, and shouted and laughed with joy, "here she comes, here she comes, here she comes." The Goose rose to the surface half dead, her beak gasping for air.

"Did you find it" asked Loon. "No, I did not" said Goose, panting to catch her breath. So Loon said "since I can use my wings to fly underwater, I will go for the mud." He turned head-down, tail-up and started his swim into the depths. All the birds waited and at the end of seven days Loon returned to the surface. He too returned half

dead and could say nothing at first. Finally he said, "I could see the bottom but I could not reach it."

"What can we do? We have sent our best swimmers and neither can reach the botton" cried all the birds. The Crane said "We cannot do it by ourselves. We must ask the fish to help us even though they cannot use the land." There was a great meeting of all the birds and fishes. The problem was that the fish had no hands to carry mud back with. Then little Coot, who was small and could not swim well, but who still had some of the salt of the fishes said, "I will ride on the back of Whale, to the bottom to bring mud to the surface." Coot climbed on the back of a great White Whale and held tight to his dorsel fin. They dove. When they surfaced, Coot had a small bit of mud in his beak.

The Crane took the mud and rolled it in between his wings. He kept rolling it and it began to grow larger, till it became so much that he could no longer hold it. But there was no place beside water or air to set it. "We need help again; who will hold this up" called Crane. One of you must let me place this on your back." All the different Fish swam up to Crane, but the mud would not sit solidly on any.

Finally the last water person left was Grandmother

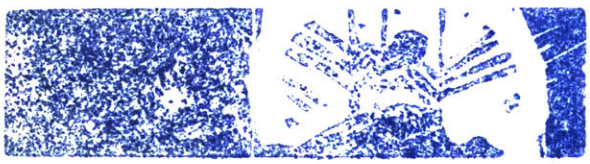
Tortoise. "Can we try to set the mud on your back Grandmother?" asked Crane. "I am very old and tired, but I will try" she replied. Crane placed the mud on her back and it stayed in a little mound. He worked the mud with his wings more and it became larger and where there had been hills there became mountains. And soon the Tortoise was hidden from view. When this was done, Crane said "So be it, let the land be know as our Grandmother, and let the Grandmother who carries the land be the only being that is at home beneath the water or on the land; let her be the only one who can go anywhere by swimming or walking."

"And so it was, and so it is. Ever since we have called our land Tortoise Island, after the great Grandmother Tortoise on who's back we sit," *said Badger.*

"That surely is a wonderful story" said Thahsu, "But the White Rabbit said that you can show the Tortoise's shell. Can you show us that now?"

Badger kept rocking in his chair, back and forth. The chair creaked each time. Finally one of the Mice squeeled, "I can show it to you," and he pointed to the fireplace hearth. Around the fireplace the ground was a rough patchy rock that was uneven, at a tilt, and so deformed that even the seat that Thahsu sat upon was just a built in part of this stone.

"Yes, that is the Tortoise's shell" said Badger. "There are many places on earth where you will see its rough surface exposed. Always remember that it's not just broken rocks, it is the Tortoise shell. Her patterns colors, and geometries are to be known and held sacred, as the foundation of all building ...



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AMERICAN DWELLING

FALL 1974 202

4.699

A seminar primarily
students running with the action
(the doing it) of :
coming to , inventing,
TAKING INVENTORY OF
the American things

(and here I mean
Williams clearly put it
-SAY IT, NO IDEAS BUT IN THINGS-

but with a touching of a verb
like say building
& from this right in to
WOT WE VALUE
& NOW WANT TO USE.

The plan as I see it is:
start local, like Boston, like
the New England,
and try to touch it. I mean
by going to see the stuff
and having them come
and talk to us.
Say; Sloane's
...adze on some of their more prominent
beams, but the well-known "cut-and-slice"
beam shows the cut of the scoring axe and the
slice of the broadaxe...
or howabt
(in Scully) when we
...will recall McKim's colonial room
in the Robinson House, Washington Street,
Newport, 1872. See Ch.2,n.17. His trip
with partners in search of the colonial
in 1877 should also not be overlooked. Ch.3,n.30...

Nope. We won't overlook a thing.
And if somewhere along the way
we begin to slink
WEST, like gunslinger
with his sixshooters on
his hips, or a talking horse,
WE'LL JUST GO ALONG
FOR THE RIDE period
And if this might lead us
right off the edge, I mean
right ankle knee waist etc
deep into the Pacific,
Melville's Pacific via Olson
then we'll take it, wet. Like:
quote - I take SPACE to be the central fact
to man born in America, from Folsom cave to now.
I spell it large because it comes large
here. Large, and without mercy - unquote.

And if we can, we'll make it wet
I mean we've got to
get to some thing of our own
&spit it out hot.

A collective enterprise -
to appropriate this history
as our own.

SLOANE: An Age of Barns
MR The Bard Book
SCULLY: The Stk& Shingle Styles
Downing: Country Houses
J.B.Jackson in Landscapes

ONE a bike trip
Sturbridge→ Boston (or Peacham
or TWO a recelebrated trip to the
NINE 1877 WONDERS of New England
or THREE up vt route one hundred etc

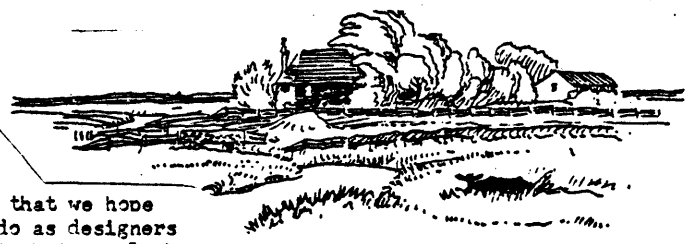
We have
5 weeks of lecture
series mid October, on

A glance at Edward Hopper's work

(LEW WELCH, standing on Mt. Tamalpais:
-this is the last place
there is nowhere else we need to go-

Thoreau's Walden
Melville's Whyte Whail
Olson's special view of hist
Scully & Jackson agn

frm each of us
a paper & talk (or walk
into the stuff
& a group effort at
some small printable thing
witha cherry on top



This seminar is a history course that we hope will influence directly what we do as designers and builders. We want to look at what people have done in inhabiting the North American landscape - particularly what they have built and how they have built it. As we understand and see more of what is around us, we can then together take hold of what is good, and make use of it.

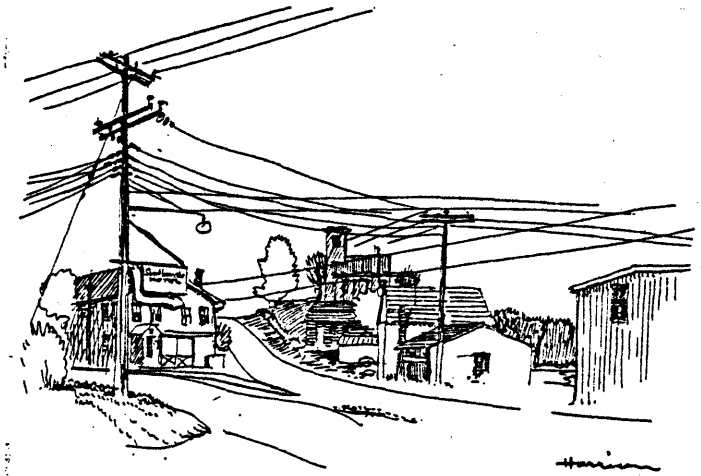
203

We want to concentrate first on New England: early settlements, attitudes to the land, hand-hewn houses and barns; also, later building methods and styles of a more settled population. An essential ingredient will be field trips, by car, bicycle, and foot: around Boston, to the early coastal towns (Gloucester, Newburyport...), the Connecticut River Valley (Sturbridge, Old Hadly, Deerfield Village...), perhaps Vermont (Woodstock, Peacham, Shelburne). We hope to have Eric Arthur and Vincent Scully, perhaps Norman Atwood and others; also, to visit Eric Sloane at his farm and museum in Connecticut. In November, we will look further afield, and see what happens with movement towards the Pacific - Frederick Jackson Turner and the significance of the frontier. J. B. Jackson will be giving a lecture, and will be around. Chet Sprague has agreed to share some stuff about American Indians.

We're not sure what will happen when we reach the western shore. The sequencing in general is not so important, as long as what we look at is good. But ther's a lot to be done. The actual working out will depend on who and how many make up the seminar.

The seminar will meet Thursday evenings, but the schedule may vary with field trips.

Credit: 9 units (or arranged)



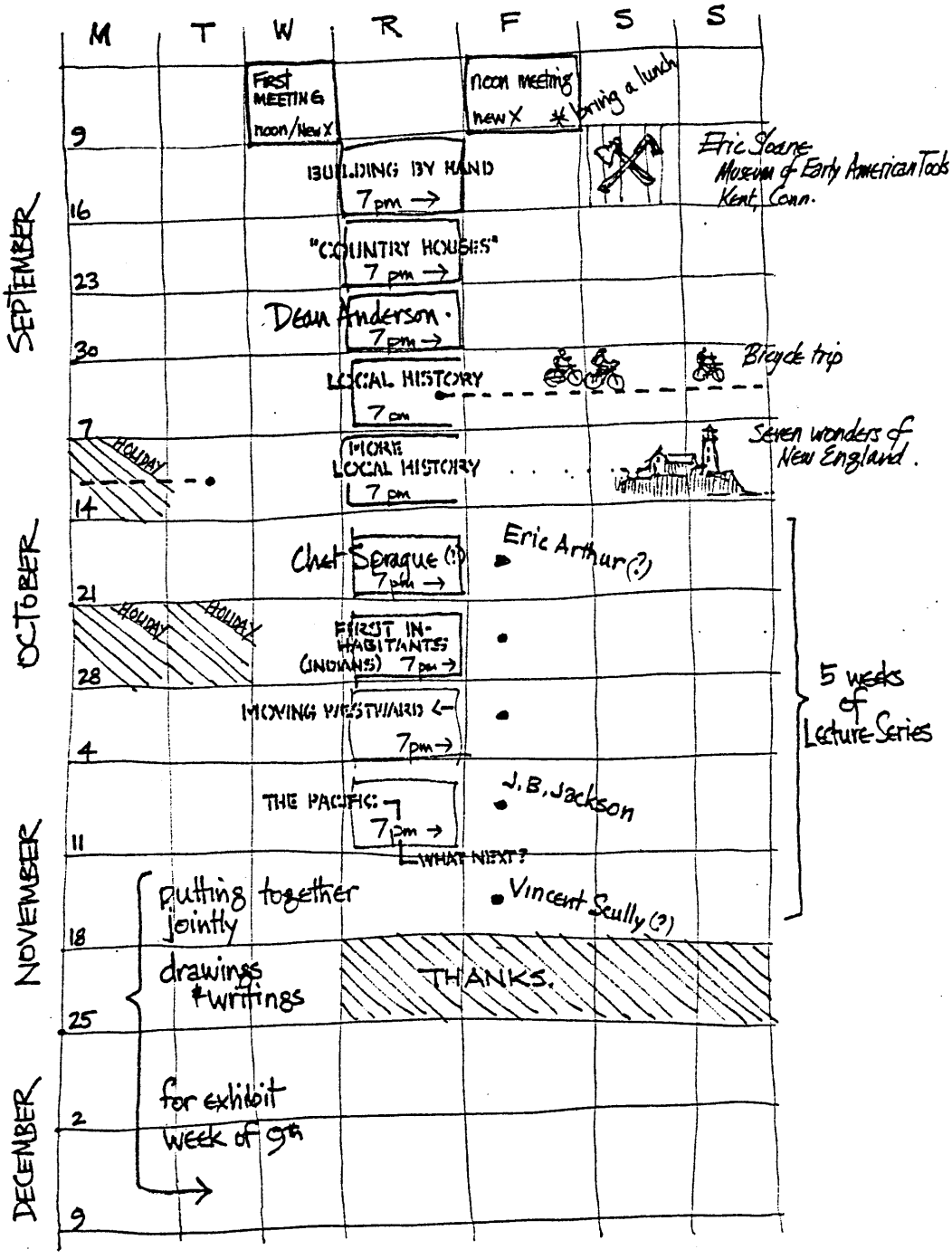
FIRST MEETING

Wednesday (Sept.11)
12 noon
New X

This course organized (grown) by us, 3rd year M Arch grad students, under the supervision of Stan Anderson

ARO
JULIAN SMITH
FAEGRE

4.699 American Dwelling



A THESIS PROPOSAL to MYSELF
WINTER 1974

a projective thesis
on geomancy and building:
landscape and house. in a place

begin with this vast continent of space, of places to dwell
in and between, this CONTINU ITY of land we call america
(or turtle island if you've been
moving south and east recently
This would be the STORY of sojourns, dwellings and settlings
by the citizens, ALL the citizens: Raven to big Dick
but believe me I mean STORY, the story I would tell my kids
yes it is ME behind, setting the foundation, moving the hand
puppets, changing the sets, as peleases me
this means that it is the story of what I've found out
in the sense of Herodotus Histories: the importandceof
FINDING OUT FOR YOURSELF

the facts here would be:
*geological: the building of this continent, mt ranges coming
and going, some plate techtonics, kinds of rock,
gravel, sand / but keeping it all on the size
of regions, like "the blood of the land running
down the denter"
*plants: the mosses that came first, and lichens, all invading
the cracks, with ice breaking up the rock (these belong under small?
Trees & forests inhabiting the valleys, where and why
which trees tree & plant MOVEMENT&?
*animals: birsd inhabiting the trees, the tree, t he three dimensi
onality of the space created around the land & plants
raven, cyote, bug, deer, bear, meandyou
"doing"

no no size diffrence?

then there would be the ACTION of it, the changes, "Indians discover
Columbus" I guess this is only the action that involves
us dwelling here, as opposed to the things, the stuff which
is clearly built, the building methods of the things providing
the model, the mode of action for us. Providing a WAY of being
in the world, which in turn provides the way of telling the
story of the inhabitations of this continent by us.

no diff btwn us and the thngs that is the assmp
no no "model" sht

somewhere in here is the issue of SCIENCE, of knowledge SCIO-
the problem is how to thingk abt it. "philosophize" abt it is what we do.
this brings up the whole thing of science in CHANGE, and what are the
Structure of Scientific Revolutions, the whole Kuhn thesis abt normative
and anomolous science. My thesis has to do with the problem that modern
normal science, on the whole is not so useful for building, or living
(being) for that matter. The problem is in the stance. the object-
subject dichotomy that removes us from close association with things /
takes us OUT of the landscape. If we start from acceptance, as number 1,
that we take the continuity of things as the fundamental fact, then we
are saying, as number 1, forget the whole subject-object concept way of
looking at things. Instead, just for ease of remembering, a kind of
continuity of word/names, we just replace it with "projective", we
become more interested in the what comes in between the subject and the
object, what is actually being thrown around, we don't try to stop it
abstract it out, but look at it in motion, while its being thrown.
PROJECTIVE: eqals "throwing forward", like the hunter, JAGER.
by

Toward an Associative Language of Form

How do we design, build, and project with the "real stuff?" - the language of Nature is directly tangible if we look at the "older" graphic languages. For example, in Chinese we find the word  *(meaning "hut" or "dwelling")** *depicting a sheltering from above. The older form of the character shows this more clearly:*  *. In the word*  *(meaning "wood, tree"),* [1] *and its older form*  *. we see the framework of a trunk with branches and roots.*

In the graphic language of the Ojibway,  *is the written surrogate of a song with the words: "on the center of the penninsula, I am standing."* [2] *It depicts an artifact used during a religious ceremony: a sapling implanted beside a stone, within an enclosure, upon the earth.*

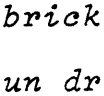
p. 35
p. 74

Graphic languages work to identify everyday things, and then build them into aggregates of more complex use.

*L. Wieger, Chinese Characters, p. 101.

[1] ibid., p. 276.

[2] F. Densmore, Chippewa Music, Vol. I.

Thus the Ojibway word written above, displays the actual physical construction of such a thing. That a process can be described is shown in the Chinese character for "brick:"  *shows the making of brick: wet clay being sun dried*[3] *("sun"*  *, over "earth"*  *, mixed with "water"*  *).*

For the graphic to remain true to itself, the intention must persevere: that every mark is part of an actual thing. The aim is that the graphics speak of the things themselves, without need of a "table of symbols."

It is in this sense that the Chinese and Ojibway writings of "tree"  *and "sapling"*  *are similar: trees are not so different in China and North America, nor in 200BC and 1909AD. Graphic languages work to show things in their simplest or most essential presence. Thus the "trees" of both cultures are shown as a framework of trunk and branches (and roots). That is the essence of the tree: we can partially hide behind, see through, hang things in, and climb into that framework. Similarly the Chinese character for "hut"*  *shows a containing "U"-shaped form which partially encloses a space and*

[3] Chinese Characters, p. 209.

protects it from what is "above" and "beside." or completing the enclosure we arrive at the character 口 *, meaning "inclosure."* [4] *With a man* 人 *inside it, the character reads "imprisonment":* 囚 *. With pigs* 豕 *inside it, the character reads "pig sty":* 圈 *. The form of all these characters speaks directly of their use; their forms are but an extending of their contents. That a character is directly visible, build, and usable aggregate of things is shown in the Chinese character for "word ":* [5] 字 *. It shows a "shelter" under which is nurturing a "boy" . . . a "seed" . . .*

That architecture might speak this directly?

It does. All these graphics come from the daily use of <u>*things*</u>*. If our aim is to design buildings that are directly usable and understandable by the residents, and that are continuous with the living earth, then the buildings must directly express themselves in the same language of form; the above discussion suggests that we look to find the same forms of enclosure, containment, framework,. . .*

. . . . .

[4] ibid., p. 188.
[5] ibid., p. 233.

A Definition of ARCHITECT

The word "dachshund" comes from Germany, and is constructed of "dachs" meaning badger and "hund" meaning a dog (that chases it during the hunt). If we follow "dachs" back further in etymological time, we find that it becomes (in Old High Germanic) "dahs," which comes from the even older "thahsu." Both of these are translated as meaning "the animal that builds," which would most likely refer to its burrowing abilities. In the even older related language, Proto-Indo-European, this "thahsu" or "dahs" is found to go to the word "teks" meaning "to build or weave, especially house walls." Thus, for example, "teks-on" is the word in Proto-Indo-European for "the weaver or maker of wattle for house walls," which comes down to us later in the Greek as "tekton," meaning "carpenter, craftsman, builder." The "master builder" in Greek then is "arkhitekton," where "arkhi" comes from "arkheim," a Greek verb of unknown origin which means "to begin, rule, command." Via the Old French, "architecte,"

we thus arrive at "the one who begins building, or who can command it," that is the architect.

Thoreau says in the first chapter of <u>*Walden*</u>*: "I dug my cellar in the side of a hill sloping to the south, where a woodchuck had formerly dug his burrow, down through sumach and blackberry roots, and the lowest strain of vegetation, six feet square by seven deep, to a fine sand where potatoes would not freeze in any winter. The sides were left shelving, and not stoned; but the sun having never shone on them, the sand still keeps its place. It was but two hours work. I took particular pleasure in this breaking of ground, for in most latitudes men dig into the earth for an equable temperature. Under the most spleandid house in the city is still to be found the cellar where they store their roots as of old, and long after the superstructure has disappeared posterity remark its dent in the earth. The house is still but a sort of porch at the entrance of a burrow."*

p. 102

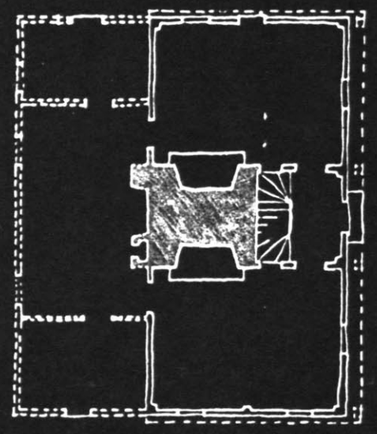
The beginning of all building must lie in the land. When in our life we realize it is the time to begin building, like the dachshund we must sniff out and chase "the animal that builds." We must become dachshunds and try to uncover and ferret him out. This may mean a a loss of weight (note the dachshund's narrow form)

just to get to the depths of his burrow. For we will surely have to follow the tunnel wherever it goes. And only then, if we are lucky down in that musty earth, far out of the light of day, down where "the sand still keeps its place," we may corner this animal. We will try to understand him there, that we may become him. And if we wish to become master-builder, then we must even don his coat of fur, and sing his song. Only this way do we learn the foundations of building.

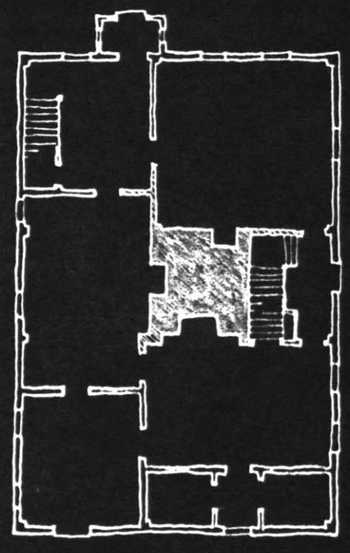
Thoreau claimed that two hours labor in digging did the job. There is no question that he was a good worker. He then built a story of the stuff, though that took him two years additional labor. I intend to be less literal, to use what the dachs have been working with - the land - and enlarge on their diggings. I would use all these diggings, as the basement of life, as the places: to keep roots cool and fresh, to hold dwellings, to push mountain ranges up into, and to keep rivers of water and ice flowing through.

As humans, we live in close association with the vegetables - the grasses and trees - and with the sun and stars they grow toward. We inhabit and project into the spaces they create. So I shall build out into this field also. And all shall be continuous, landscape and house, never more than a "porch at the entrance of a burrow."

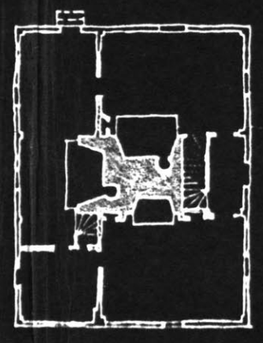
→ SOUTH
scale ~ 1/16" = 1 ft.



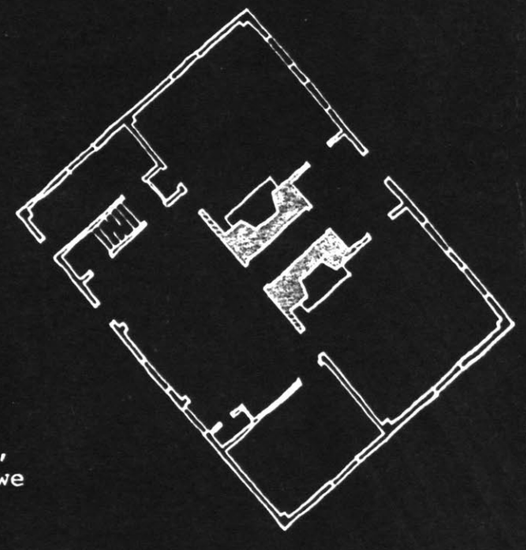
1. Whitman House, Farmington, Conn., 1710 (C. p.47) shows in plan the essence of the "English Colonial" house. A large fireplace forms the focus of the house. It is initially used on two sides for containing fire; against the south side in a stair; with time a lean-to with fireplace, is added to the north side. With lean-to, the core is surrounded by living spaces. An external retangularity governs the rest of the plan.
The following plans, though not always built in two stages, tend to retain this overall organization.



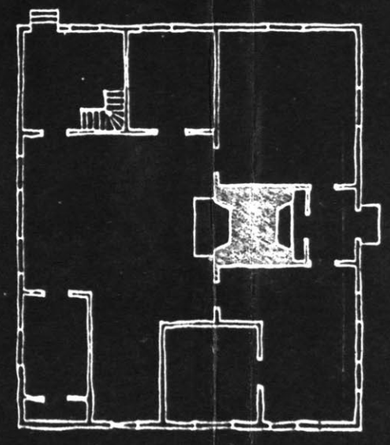
2. John Reynolds House, Norwich, Conn., 1659 (C. p. 40): to the left of the masonry core is the kitchen with two closets; to the right is the parlor; to the rear is a living room, with a bed room to left and storage to right.



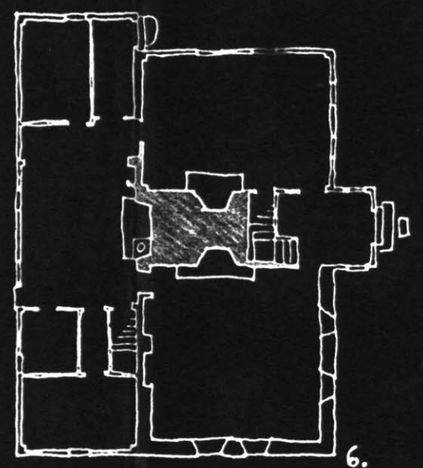
3. Ogden House, Fairfield, Conn. (A. p. 60) Again we find the masonry core, with its short attached walls and stair, almost totally defining the privacies (rooms) of the house. In this case the size of the house has decreased, though the core size remains as before. Brick ovens are shown within two of the fire places



4. Captain Johnson House, Hamburg, Conn., 1790 (C. p. 411) shows the directionality of the fireplace, here penetrated to provide direct access to the rear of the house.



5. John Avery House, New London, Conn., 1660 (C. p. 71) Here the masonry defines to left, right, and rear: parlor, hall, and keeping room. At the rear of a deep lean-to are a buttery and a kitchen. Two bedrooms sit on either side of the keeping room. Here the tension between a strong external rectangular geometry, and the masonry core, results in unusual spaces between.

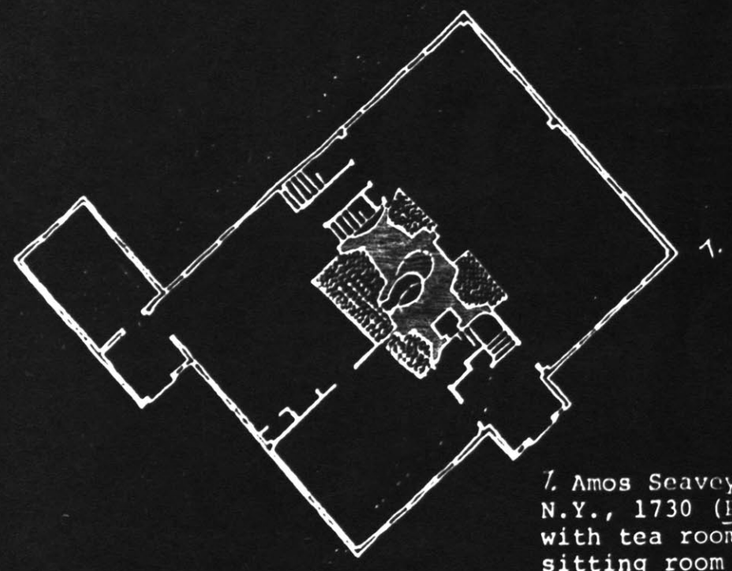


6.

9.

Showing that the house & lean-to dimensions and directions we have shown, are compatible with those of the mother country, is:

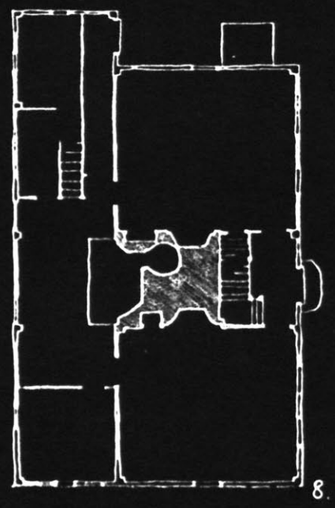
9. Meer Hall, in the Parish of Hanbury, England (this plan measured 1328 E. pl. 22)



7.

6. Colonel Paul Wentworth House, Salmon Falls, N.H. 1701. (P. p. 131)

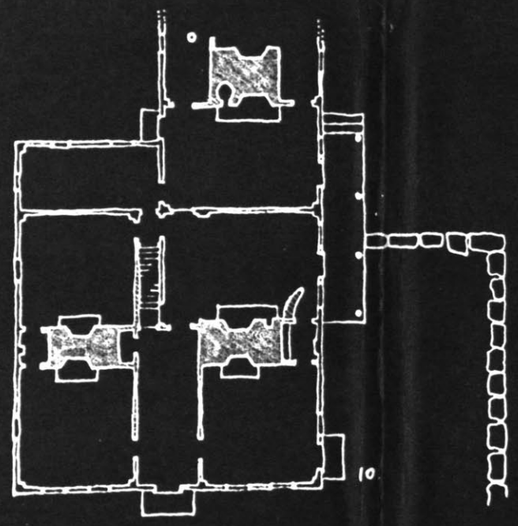
7. Amos Seavey House, Rye, N.Y., 1730 (P. p. 152) with tea room to right; sitting room to left: of entry. Upper and lower ovens in kitchen fireplace. "Vestibule" at rear left corner.



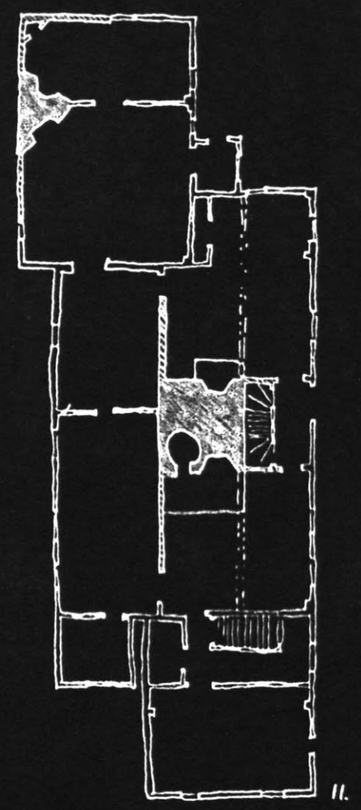
8.

8. Parsonage, Newington, N.H. 1710 (P. p. 148)

Plans 6, 7, and 8 show the masonry centered "English Colonial" house beginning to take on some expression, in plan, of growth. In plans 6, and 8 the lean-to addition is allowed to project a "door-width" past the east end of the original building. Plan 7 shows a small shed attached at the north-west corner. Asymmetries begin to express the extending nature of the building; they no longer suggest the completely inward turned organism of the previous page. In all three cases we note a stair within & parallel to the long dimension of the lean-to. That all three of these examples come from N.H. suggests that the primary purpose for these projections was to make the lean-to a more spacious and convenient cold weather entrance (being placed further from the front parlors).



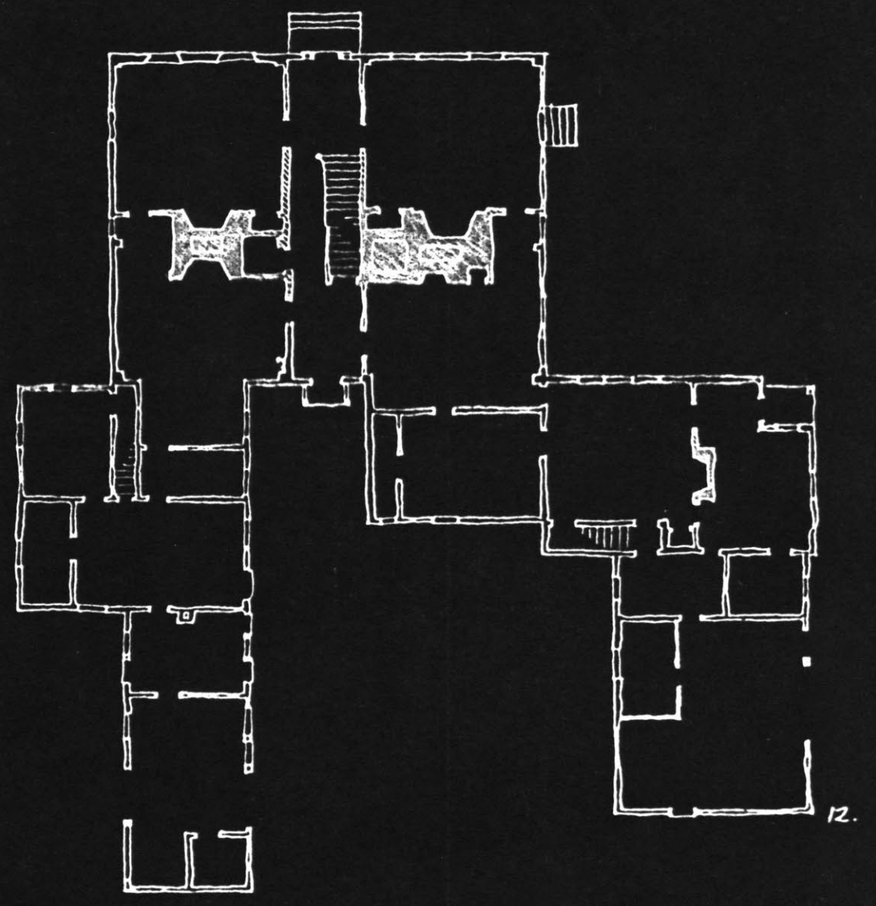
10. Phelps Red Lion Tavern North Colebrook, Conn. 1780 (I. p. 62) We note the overall plan here is essentially that of two single chimney plans (1→5) side by side, overlapping the lean-to's. The larger direction of movement through the house goes between the two fireplaces, thus perpendicular to them. A stair continues this direction upward; an ell of the building continues the same direction. The largest result of all this is that the front rooms become potentially the most private of the house (previously, the rear of the house had been the place of privacy). "His sign had a red lion on one side and an eagle on the other ... There were many beaux and many dances in the ballroom, where the spirit which still played for them stood until 40 years ago. Captain Arah boasted that his daughters would never lack for husbands, but only one of them ever married."



11. Fairbanks House, Dedham, Mass. 1636 (B. p.) The "English Colonial" plan may be built up to yield a directional & extensive house. In fact, the eastern extension was meant to house the son's family; good reason to pull away from the central core and take on its own kind of fireplace.

A similar spirit of growth and extension (here servants, not family) is carried into the 18th century:

12. Judge Seth Wetmore House, Middleton, Conn., 1746 (C. p. 222) The building extensions contain servants hall and kitchen, wood shed, summer kitchen, bedrooms, and stalls.



Sources:
A = Williams, Old Houses
B = American Architect
E = Habeishon, Half Timbered
I = Terry, Old Inns
O = Trowbridge, Old Houses
P = Howells, Piscataqua

→ SOUTH
scale ~ 1/16" = 1 foot