Subject descriptions

Here is a chronological selection of subject descriptions from studio courses (published at the beginning of each term to inform students' choice of instructor), as well as some notes on the design curriculum.

Subjects represented are:

Architectural Design: core studio subjects at three "levels"
Form Language Workshop:
Built Form Observations:
Small Built Collage:

Most of the source documents exist as less-than-perfect photocopies, so the accompanying transcriptions are included to offer a clearer "translation" of the text without attempting to replicate the graphic arrangement of the pages. You should look at both.

A number of pedagogic themes unfold over the 35 years of teaching documented here:

1. Informing design work with "facts of form" gleaned through observation and analysis of a very wide range of references, encompassing the natural and built worlds, and vernacular and "professional" building.
2. (Often) beginning from existing built form, using rule-based "transformations" to analyze existing form and to project new form.
3. Structuring studio projects in the constraints of particular, defined building methods rather than just in the requirements of program and site.
4. (Often) dividing the term's work into multiple short explorations rather than a single project.
5. Working in a range of media (including models) and at a range of scales.
6. Collaborating with other disciplines, including structures and history.

year	term	subject
1962	spring	Architectural Design Studio level 1
1969	spring	Architectural Design Studio level 1
1971	fall	Notes for Built Form / Assemblage faculty group
1972	fall	Built Form Observations
1972	fall	Architectural Design Studio level 2
1973		Architectural Design Studio level 2
1973	spring	Architectural Design Studio level 2
1974	fall	Architectural Design Studio level 2
1975	fall	Architectural Design Studio level 2
1976	spring	Architectural Design Studio level 2
1976	spring	Built Form Observations
1978	spring	Architectural Design Studio level 2
1978	fall	Architectural Design Studio level 2
1980	spring	Architectural Design Studio level 3
1980	fall	Architectural Design Studio level 3
1980	fall	Small Built Collage
1982	fall	Architectural Design Studio level 3
1983	spring	Architectural Design Studio level 1
1983	fall	Small Built Collage
1984	fall	Form of Structure
1984	spring	Form of Structure
1984	spring	Form of Structure
1984	spring	Form Language Workshop
1985	spring	Form Language Workshop
1985	spring	Architectural Design Studio level 3
1985	fall	Architectural Design Studio level 2
1986	spring	Architectural Design Studio level 2
1986	fall	Architectural Design Studio level 2
1986	fall	Notes for Level 1 Design curriculum
1987	spring	Architectural Design Studio level 2
1989	fall	Architectural Design Studio level 2
1989	fall	Form Language Workshop
1991	fall	Architectural Design Studio level 2
1991	spring	Architectural Design Studio level 2
1992	spring	Architectural Design Studio level 1
1993	spring	Architectural Design Studio level 2
1994	spring	Architectural Design Studio level 1
1994	spring	Form Language Workshop
1997		Small Built Collage

memo for Architectural Design Studio
Spring 1962

4.11 Architectural Design

FROM: Maurice Smith
TO: William H. Brown
DATE: February 21, 1962

FALL

Introduction to this first one-semester course attempts to establish and develop a logical basis for disciplined design synthesis.

SPRING

Blackboard exposition, class discussion, and student observation is directed towards these general related aspects: (an introduction to most building programs is given)

USE
SITE
MATERIALS/STRUCTURE
FORM

Aim is to emphasize similarities as well as uniqueness of individual problems--an attitude to SITE, MATERIAL, etc. through an exploration of possibilities as well as the ability to "solve" only the isolated problems given.

FALL

Problem1: *man and wife (selected profession)

*self-contained dwelling (minimal mechanized control

*"natural" site in desert (flat, open) or hillside (sloping, wooded)

SPRING

*load-bearing materials limited to unit masonry (desert); lumber (forest)

This gives two major types, and 6 groups within class. Each student selects and documents his own site (photographs, drawings, maps, etc.)

FALL

SPRING

Problem 2: as problem 1, --"reverse" site type and material.

FALL

Problem 3: Involves automobile. Garage/filling station on limited suburban site;

or motel on 3 or 4 different types of site with varying densities.

SPRING

Materials limited to reinforced concrete and/or steel.

Study models, site drawings, and axonometrics are made in addition to orthographic projections, sections, perspectives.

Level One Architectural Design Studio
Spring 1969

with Henry Millon
T.A.s Michael Underhill & Robert Slattery

SPRING TERM 1969-70

4.122 Maurice SMITH (MILLON?) SLATTERY UNDERHILL

Introduction to an additive vocabulary of (substitutional) habitable / 3D physical growth / use / built form space / place definitions continues,

[extending (from 4.121)

1) planar assemblage
2) inside/outside 2 & 3 dimensional "screens."
3) "continuous" surfaces as: single-sided "ground," and as
4) double-sided habitable "ground."]

(1st half of spring term) to include:

5) partial 3D enclosing premade "extrusions" and/or
6) on-site "armature-mesh" and formworkless casting.
7) "load-carrying" lineal members and/or lineal framworks.

(2nd half of spring term) Working from the "experience" of "1" through "7":

Generation "Design" of a smallish "school" / "non-school" as a "form exploration" to satisfy (at least) the given "programmatic" requirements from an actual suburban / urban school-building committee.

Drawings and models still mostly at 1/4" = 1'0". "Teaching" / Communication methods proposed as additional to those of 1st term:

a) Each alternate Tuesday class meeting (2-5p.m.) organized by student groups (invitation) / rotation convened to present buildings / topics for class participation.

b) Each other Tuesday session (2-5p.m.) similarly by Maurice SMITH et al (for both "a" and "b" topics announced one week in advance).

c) WED. & FRI. p.m.'s criticism of individual projects by assigned staff: at least one weekly session mandatory for each student by appointment.

Design studio curriculum
Spring 1970

1/4

to ; FACULTY
from : maurice   october
       SMITH   november 1970
on : development in

BUILT FORM
ARCHITECTURAL DESIGN
PLACE / PURPOSE / making PROCESS / building — for — GROWTH / USE / CHANGE

The forseen / implied — 'separation' / division / development — for — recognition / organisational / (administrative) / discussion (?) — purposes
of the department
into 'interest groups' labelled (for e.g.):
BUILT FORM / ARCHITECTURAL DESIGN / THEORY & CRITICISM / BUILDING TECHNOLOGY
ARCHITECTURE & SOCIAL ORGANISATION / EXTENSIVE ENVIRONMENTS/ etc. / ...
must lead / be led / directed — DESIGN AIDS — towards 'area' interdependence rather than towards mutual / 'academic'
isolation.

E.G.:
There is little persuasive evidence (in my / our ! view) that WORKING / DESIGNING at different SIZES / SCALE
(i.e.more extensive environments v. limited complexes) COMPREHENSION of
implies / demands / warrants — the use / awareness — of different METHODS / CONCERNS , but rather directly,
only...MORE / LESS — EXTENSIVE / VARIED — 'INPUTS' / RESTRAINTS. / EMPHASES

No matter how (well) so-called 'SPECIALIST' SKILLS / ATTITUDES / SUBJECTS are PRESENTED / 'TAUGHT' / made AVAILABLE ,
including the transference of SKILLS / KNOWLEDGE / EXPERIENCE
in socio-politics/economics/
technology/history/criticism/
theory/use-form-definition/implementation/
etc./
they (will) continue to be seen
as CONTRIBUTIVE / SUPPORTIVE / SECONDARY to 'DESIGN'
(certainly by most students) -
UNTIL / UNLESS such 'specialist' teaching is / becomes — recognisably / genuinely / avowedly — generative. / projective

All studies / research / work — in 'architecture' / environmental intervention / anthropogeomorphology — are / is (hopefully) towards

understanding the qualitative attributes / implication/meaning of physical definition.
the 'realization' / utilization
i.e. towards BUILT / MADE FORM.

FORM IS USE - no matter how particular / pluralistic &/or local / extensive .

2/4

'Areas' to develop :

(A) : MORPHOLOGY: for all students / (& faculty)(?) — OBJECTIVE / PASSIONATE — introduction to the attributes / towards an understanding
of geometry / built / projected / 'found' / unbuilt / natural / .... FORM.
Recognition of an INCLUSIVE VOCABULARY of
RANGE of
MUTUALLY DEPENDENT / RECIPROCAL — DIRECTIONS / DEFINITION(S) / DEFINITION METHODS
for use by rational / associative SELECTION.
('bits' of USE-FORM information
must be made available)

AVRAHAM WACHMAN : TECHNION
(A.G.TING'S AREA CLAIMED COVERED)

(B) : TECHNIO-INDUSTRIAL: (distinct from / in addition to W.Z.proposal)
INTRODUCTION to / best USE of — AVAILABLE / ANTICIPATED — 'building' / manufactúring — PROCESSES / MATERIALS .
'Industrial Building' as exploratory / synthetic / projective environmental DESIGN / DEFINITION / ASSEMBLAGE .
(not the 'perfection'
implementation of existing form/method prototypes
e.g.skeletons/skins,boxes,etc...)

JAPAN :

(C) : IMPLEMENTATION : through continuous / contiguous operations of users / promotion / management / design architects / engineers / construction / maintenance / change / ....

ACTUAL REALIZATION of
FULL SIZE
DEPARTMENT / SCHOOL GENERATED PROJECTS as 'demonstrations' / examples / explorations / parallel models / modes
to 'profession'
POSSIBILITIES rather than PROBABILITIES.

in addition to projects 'fielded' / sought out / (&)perhaps done — by individual / groups of — faculty members.
'advocacy'
research .

(N.B.: S.O.M. Chicago / Bill Hartman — could / would — contribute 'expertise' as required / needed on PROJECT / LOAN
to parallel 'office' operation
and to move towards closing the enormous gap apparent between
schools' / students — attitudes / action / interests — and "the profession" .

WITH ATTITUDE OF ALAN [illegible] :
+ EXPERIENCE OF BILL LE MESSURIER
&/OR TASSO KATSELAS .

Ⓓ : FACILITIES : for ALL

working places
MATERIALS & supply & storage
'warehouse'/ transportation /
equipment
'WORKSHOP' inside & out for
full-size experiments to use
explorations live in
.....
in addition to project models.

? WHERE ? WEBSTER building
BUILDING 10
METROPOLITAN warehouse

'constructable' by students
re-groupable for for faculty
changed associations

LIGHT
ACCESS
SPACE
DIMENSION

some people are now working in the equivalent of underground vaults - without adequate ventilation or any natural light.
in some respects the stated concerns
our implicit
are a departmental
an operational sick joke.
no users would suffer
clients accept such conditions.

helpful to survey the
It may be instructive

PRESENT FACULTY members who are active in
ARCHITECTURAL DESIGN - dispersed according to their MAJOR INTERESTS.
(but of course) NOT EXCLUSIVE
(the 'classifications' are by me, respectfully, & for this missive.

Ⓐ : MORPHOLOGY — GAP. — BUILT-FORM / USE- / GROWTH*-

THROUGH ARCHITECTURE AS SOCIAL ORGANIZATION SERVICE

SEE STAN: ... INFORMATION

Ⓑ : TECHNIC-INDUSTRIAL — GAP. — "EXTENSIVE" ENVIRONMENT

Ⓒ : IMPLEMENTATION — GAP. — BBUILDING(S AS) SYSTEMS

FIRST DEGREE, MOSTLY.

FORM IS USE ! OR:
DON'T DO ANYTHING YOU WOULDN'T WANT TO LIVE IN / WORK / PLAY / BE.... YOURSELF / FRIENDS . OR: / RELATIONS / WHO....
SMITH
SURE. THIS IS ONLY ONE ATTITUDE / WAY . OR:
YOU CAN DISAGREE IF YOU LIKE
RECIPROCATE ! OR:
DISCOVER . OR:
INSIST ON BEING WRONG . OR:

THIS IS THE WAY I / HE / THEY DID / DOES / GO ABOUT IT . OR:
TREMAGLIO
LOOK & SEE OR:
LET'S GET ON WITH THE STUFF . OR:
COME ON !
ACTUALLY, I RAN QUITE A BIT . OR:
GET OFF EVERYONE'S ANTHROPOLOGICAL / THEIR / MY BACK . OR:
SPRAGUE
WHO IS THWARTING GREAT HATS ...? OR:
I WAS WONDERING, GEORGE . OR:
YOU NEED HELP ! OR:
BUT BE RESPONSIBLE / PROFESSIONAL / OBJECTIVE . OR:
DO IT ON TIME / BUDGET OR:
GET IT BUILT & DON'T ARGUE . OR:
THIS IS DELICIOUS ICE CREAM, YOU'LL LIKE IT . OR:

GOODMAN
DO WE REALLY KNOW HOW TO LIVE ? OR:
DON'T LET THE SYSTEM GRIND YOU DOWN . OR:
FORGET THE INSTITUTIONS OR: I DON'T KNOW WHAT THIS MEANS . OR:
THAT'S COOL . OR: YOU TELL ME . OR: AFTER THE DELUGE . OR: LET'S ALL DO ONE / MY THING . OR:

YES I DO LIKE THAT ! OR:
WELL WHY NOT HAVE A GO ! OR:
STEFFIAN
OH ISEE . OR:
THERE'S THE SETTLEMENT PATTERN . OR:
LOOK, THE CARS GO ALONG THE ROADS / STREETS . OR:
WHAT SHOULD WE DO THERE : OR:
I THINK WE SHOULD . OR:
DUGDALE
SMASHING . OR:
PAST ONLY ON TURNS . OR: WHAT HAVE YOU GOT TO LOSE ? OR:
NOTHING LIKE AN INSTANT/POP TECHNIO/ARCHI-EVENT/CRASH HAPPENING . OR:
LIVE IT UP.

HARMS
MAY I HELP YOU . OR: AND WE CAN HELP THEM . OR:
THOSE PEOPLE / THEY GOT WHAT THEY WANTED
MAYBE BY NEXT TERM WE'LL BE ABLE TO DO SOMETHING . OR:
EXCUSE ME, I HAVE A DATE . OR:
IT'S A START ANYWAY.

BEINART
AFTER YOU OR
I WONDER WHAT'S HAPPENED IN SIMILAR CIRCUMSTANCES ELSEWHERE : OR:
WHAT ARE THE ALTERNATIVES . OR:
SHOULD / DOES WHO REALLY MAKE THE DECISION
IT SEEMS TO ME . OR:

WAMPLER
GIVE THEM A CHANCE & THEY'LL DO IT THEMSELVES IN OUR FRAMEWORKS . OR:
CAN / HOW DO WE MAKE FORM OUT OF THAT . OR:

LYNDON (MOORE) (HARDY) (WILSON) KLIMENT WILSON &
SHOW & ....
HELLO, I'M COMING BACK IN FEBRUARY . OR: WHO'S WHOSE . OR:
IF NOTHING ELSE WE SHOULD GET TO KNOW EACH OTHER . OR: DON'T PLAY / ROCK / DESTROY THE FIELD / BOAT / CORNER . OR:
SOMETHING
I LIKE WANDERING / WONDERING MINSTRELS . OR:

SECOND DEGREE, MOSTLY

HALASZ
I THINK WE SEEM TO BE DOING QUITE A LOT . OR: SURE WE CAN DESIGN A CITY . OR:
IT'S TURNING OUT QUITE WELL . OR:
KEEP YOUR MINDS OPEN & DO AS I SAY . OR:
WANTS ANYONE ? OR: WHO'S GOING TO PAY . OR:

MYER
CAN THE MOTHER SEE THE CHILD OR:
IT'S REALLY A GREAT PLACE TO DRINK . OR:
WELL, THESE ARE SOME OF THE POSSIBILITIES WE SHOULD LOOK INTO, BUT ON THE OTHER HAND . OR:
WHY CAN'T WE DO THAT . OR:

CATALANO
HERE IS THE ANSWER . OR:
YOU CAN MAKE AS MANY AS YOU WANT . OR: THE FACULTY IS NOT SERIOUS

GIANCARLO DE CARLO
YES, I LIKE VERY MUCH . OR:
YOU MUST GATHER THE INFORMATIONS BEFORE WORKING AT YOUR TABLES . OR:
WHERE ARE THE REBELLIONS . OR:
COME TO ITALY . OR:

(ZALEWSKI)
BUT WHY . OR: IS THERE REALLY A NEED FOR THIS . OR:
CONCRETE IS O.K. BUT STEEL IS O.K. TOO . OR:
CERTAINLY WE CAN BUILD ON SLOPES . OR:

CAMINOS
THESE ARE THE FACTS . OR:
THIS IS WHAT YOU MUST DO . OR:
IT IS VERY COMPLICATED . OR:
I HAVE A LOT OF EXPERIENCE . OR:
& YOU, WELL, YOU ARE VERY YOUNG . OR:

notes for
Built Form Group
Fall 1971

Built Form
exploration + assemblage

exploration
BUILT + FORM (B.e.a.F.)
assemblage

position contribution to 'group' package by maurice SMITH for registration day
2 pages sept 13 fall 1971

this will, of course, be added to expanded changed occasionally, and augmented

by work references & reading
built- 'looking' lists, perhaps an illustrated glossary of terms,
& a burgeoning catalogue of space-defining methods & use-places
(by spring '72) definitions.

GREETINGS !
the man-made environment is scrutable. BUILT *FORM IS
'natural' has no mysteries.
there are no secrets,
only physical facts
understandings
interpretations.

(built-) FORM has direct meaning, & the quality of physical environment, or
any aspect of (it) PLACE, PURPOSE, & the MAKING PROCESS. -
can be discussed rationelly
generated logically . We need to develop
have developed a critical response to
...the impenetrability of modern junk... & the supposedly public places of
(duplicity of modern technology) private
the modern city..."
(non-city)

As 'architects'
designers etc., it is possible for us to help make 'societies'
builders any groups place
individuals
better only through the implementation
well development of specific capabilities
contribution relevant competances
(the Goodwill of "peers" is inadequate.)

In this belief, while ~~sharing~~ with students a common ~~shared~~ interest in BUILT*FORM—
-WHAT TO DO *- we attempt to "teach"
demonstrate directly
directively as "...skill models..."—
-HOW TO DO IT *- to accelerate student independence through skill transmittal
in exchange for "...educational Vouchers..." and to
help build up a 'bank' for skill exchange
network of information.

Physical proposals must be ~~understood~~ perceived physically,
FORMAL realities AS FORM not in ANY abstract terms,
although data from other 'media' contributes directly to the quality
influences meaning & use of
physical definition & vice versa.
(all drawings existing building processes
models are perceived as surrogates of projected realities .)

An important part of the attitude is the prescribed additive working method.
philosophy
Inclusive processes are both simultaneously making (building method) & use (program)
they are additive optional, not hierarchic mandatory .
Clarity is possible at all stages of an additive growth process which
acknowledges no differences in attitude in working at
designing
widely different sizes 'scales', i.e. there is the understanding of
should be no conflict(s) between the
requirements
potential of so-called extensive environments & small 'entities'.
(user) needs
Large-size social
political
economic decisions are made to 'free' the implementation
physical facts recognised facilitate of 'local' definition etc.
change
landscape
(cf. the realities of climate etc.)
time

We are not interested in 'artistic'
intellectual elitism. RATHER, we must intend to
professional

encourage improvisation
implement methods decision-making on the job to help dissolve
develop capabilities invention in place
building
the lineal antipathy financing
static contradiction between 'a priori' programming and 'using'.
conflict designing
building

Absolute 'completion' is DEATH.
IF 'BUILDINGS' are to parallel the complexities of LIFE, they will be
be in sympathy with
part of
the additions families of form
interactions of many simple but self-substantial decisions
incomplete definitions
partial operating in reciprocal continuity.
(every action is defined by many others. [e.g. an adequate 'structure'
defines satisfactory
implies
will not ~~only~~ give minimal support, but will partially define use-space,]
Every decision contributes to the current 'being' of a place & there are
act is important life
always many reasonable alternatives).
no one-man/one-answer solves (problems'.
Particular reciprocities are explored rather than generalities averaged
definitions synthesised systematised,
or, the 'norm' is not built, but exists only as a diagrammable reference.
normalised
(forsome exercises in BUILT-FORM exploration
towards a catalogue of use-place definition see my notes for
assemblage synthesis BUILT-FORM II
We must generate (a) life-varied 2-dimensional 'habitable' september
can assemble pluralistic field fall 1971)

Ivan Illich, "Education Without School.: How It Can Be Done."
N.Y. Review of Books Jan 7 1971
maurice SMITH, in Harvard Educational Review, vol. 34 no. 4 1969
& in research ARCH M.I.T. Vol II No 3 May 1971 -

Architectural Design
Studio Level 2

Fall 1972

BUILT*FORM 2 4.131 etc. for september 11th
ASSEMBLAGE?/EXPLORATION 4.143 (or towards a synthesis registration day
of USE-PLACE definition) fall, 1972
PAGE ONE
maurice of three
SMITH : GREETINGS: we will:

continue (see last years B.F.writing
intensify the working methods/attitudes of BUILT*FORM 1 posted on 3rd flr.wall:
more can be printed if...)

extend the projective vocabulary of possibilities.

? What about HOUSING ? ? What ~~can~~ will ~~should~~ be done ?

? Whatever happened to Industrialisation & community / individual choice ? NOTHING !

The general alternatives remain: to work inside / go along with the current form of

institutional / commercial / industrial management/marketting/production/stockpiling/distribution/financing/

etc. OR to try to develop (further) through additive generation, built-places for living that we can enjoy/choose/change... associate with directly& warmly. There are,of course, umpteen ways of going about this... (building is only one.) : e.g. (a)political /to the land/...communs/...do 'what you want'/ ping-pong/ chess/.....or Graham Caines (british AA student) "self-sufficient"/everything grown/generated or recycled ECOlogical HOUSE/ people's technology...- ...or his competition proposal for a housing estate in Bracknell,Herts.or Berts., of self-growing bamboo dwellings.

WITHIN OUR "professional" options (small p.) there must be room for DESIGN EXPLORATION which pushes 'architectural' services much further along the time / decision-making line towards the often-hapless citizen / consumer / user . Such services are usually WAY out in front,(quality regardless!)
All or nothing-at-all is not good enough.
...withthe user/renter/buyer at the receiving end of the unresponsive chain...free' only to 'decorate'/furnish (maybe) the 1½/2½ room unit disliked least & almost affordable.

PEOPLE / WE canNOT (reasonably) choose between possibilities they / we can't see / experience.
While the 'experience' can be simulated by surrogate models (which can be assembled)by & for 'users')etc. - many different actual full-size possibilities need to be freely avaailable to discover 'peoples' real reactions/opinions/wants/needs. (M.I.T. could sponsor some of this as an alternative to building more median dormitories & 'standard' housing - maybe it WILL happen.) We ought to make some FULL * SIZE 'models' & try for real support/projective 'testing'.

Contrary to the assumed (market) 'conservatism' (minor deviations from norms), particularly for short-term housing occupants, WE assume/believe that students/ faculty/others WOULD opt for MAJOR differences in the form/quality of their housing IF it was really available to choose.....

Herman Hertzberger & Piet Blum in Holland ARE offering some range of usage/change to tenants/buyers in their recent housing schemes, and Giancarlo DeCarlo in Italy has, WITH the eventual 'occupants' developed 7 different appartment types in a project for 2 or 3 thousand stell workers. It's now BEING BUILT ! These are sensational achievements within institutions, but we can do better/go further! Can We ?

? Whatever happened to industrialisation ? Nothing, at least to 'IT'S attitude. This was unequivocally set up by 100 years ago: unfortunate 'customers' were already being'sold' a completely 'finished' product....
In 'The Great Industries of the United States' ed.Horace Greeley et al. 1872 p.582 "... In fact, in case of strict necessity, the firm of Bartlett, Robbins & Co. could turn out a dwelling which with the addition of the necessary textile fabrics ,would be surprisingly near to complete readiness for its inmates..."
(continued on p.2...)

The accompanying position paper(PAGE THREE)/notes are contributed by Francis Fleetwood after some 'researching' the 'industry' & observing the Dietz summer seminar on INDUSTRIALISED BUILDING . It,the Industry, is in rotten shape.

This term we will begin to explore/develop 'a' BUILDING METHOD which attempts to reinstate the pluralities/possibilities for either-or physical behaviour in/of 'indigenous'/pre-industrialised load-bearing building components.

We will work on upto the 4-floor structures for housing -(but not to exclude other uses.)

ESCHEWING the deadly/restrictive'rigidity'of the capsule/'box' AND large panel systems per se, we propose to increase/up the performance &/or size of some comparatively small PIECES/PARTS ... to avoid the violent hierarchy in current/'normal' building methods , & which,that is, our PARTS WILL, incorporate (at least) these capabilities/attributes :

A: WINDOWS/ DOORS/ OPENINGS/ etc. will be self-stable & moderately load-bearing i.e.'framed', with attached angles etc for B.

B: WALLS will be built up from pre-made foam-concrete etc/wood composite planks, 8" high, T.& G., laid horizontally in the angles optionally attached to A: ('openings'),orthographically or at 45*.
maximum unrestrained length 12 to 16 feet. 'Plank' walls are also load-bearing for floors etc. They, the planks, can be cut from long stock to any required lengths.

C: FLOORS/ ROOFS will be lightweight conc./composite or stressed-skin wood constrn.

D: SERVICES/ PLUMBING SCORES' will contain/concentrate everything BUT the fixtures/ outlets etc., which can be anywhere about the core's periphery.

Each participant/student will develop/determine 'his own' parts & sizes, and whatever else is optimum/needed/good for the equivalent of three-floor construction. Each'PROGRAM' should include the # of 'dormitories'/appartments that you would recommend M.I.T. to sponsor/build.

We will select some particular site(s) together.

We will determine 'production' schedules together as the work proceeds; drawings & models will be concurrent.

Note that BUILT*FORM 3: Profs.Malasz & Zalewski are projecting related work at higher densities . They will consult/visit as will Jeff Gutcheon & Mike Underhill.

We will begin an indigenous building/architecture section in the library this year, (doing B.F.1 for Tremie)
with books (on reserve) & slides. You can help add to this with suggestions & ...

FIRST ORGANISATIONAL MEETING will begin at 2 p.m. WEDNESDAY SEPT. 13th 1972
for at wall blackboard/ping-pong table
more in BUILT*form studio
information
more
discussion (regular studio work sessions/group meetings
of will be on Monday/Wednesday/Friday afternoons.)
intentions
methods

notes on INDUSTRIALISED BUILDING contributed by FRANCIS FLEETWOOD (ed.M.K.S.)

After a hopeful decade, most observers are now disenchanted with the I.B. Industry in the United States. Results have been dismal,financially & arch/y. Where partly successful, the Industrialisation process has been blurred into PRODUCT IMPROVEMENT.

Normative definitions split I.B. into THREE catch-all CATAGORIES ranging from totally to minimally industrialised:

1: BOXES
THE most industrialised 'SYSTEM':the box/capsule/module/or'mobile home'. The product comes factory finished, ready to go on prepared foundations & to be connected to utilities. With the exception of 'MOBILE HOMES' this segment of the I.B. field has had the greatest failures. Barron's, the National Business & Financial Weekly, reports in "BLUEPRINT FOR DISASTER" (july 3 1972) the catastrophic failure of Stirling Homex & the impending failure of Levett & Sons. Boise Cascade is rumoured in serious trouble. Experts seem to agree that it will be many years,IF EVER, before large corporations return to box construction.

2: FLOOR & PANEL SYSEMS
Employing a medium 'amount' of industrialisation, large CONCRETE F.&.P.systems have achieved only moderate success in the U.S. Large tooling-up cost, quality control & high over-all costs have kept most corporations away from this common form of European Industrialisation; successful there through direct governmental sponsorship. Success here is dependent on the producer controlling the entire development ,rocess(the market) &/or where savings can be realised through mass purchases of building materials. (e.g.COMSYST, & Modular Housing Systems)

WOOD floor & panel systems comprise only a small part of the I.Housing Market. Techbuilt, Acorn(only 300 units/yr.) & the Dead River Company work predominently with a few 'authorised' builders, supplying basically the the special market of second homes. They do NOT claim to provide more sq.ft. for 'the dollar',but a "...better-designed product..." Using traditional building techniques, they divide their houses into four foot built modules for easy handling in the field. These corporations realise SOME savings through bulk purchasing.

3: PIECES
Pieces involve the least 'amount' of industrialisation. The term refers to elements SMALLER than large panels,but not necessarily small enough to be lifted by hand. Included is the vide range of columns & beams produced by the steel fabricators & concrete casting plants like SanVel. Each producer claims fantastic savings, sometimes up to 20% if construction time is included. But- close analysis demonstrates that the REAL savings are small, since final costs of any building includes only about one-third for'structure'. Sadly, where the greatest number of housing starts are, in single & multiple dwellings, there has been the least innovation.
****

A REASONABLE ATTITUDE towards industrialisation (largely unexplored) will include developing BETTER PIECES & WORKING ADDITIVELY; making pieces which combine with what already exists;(bricks,blocks,conc.lumber,steel etc.) increasing the size of 'traditional' pieces while maintaining easy handling; simplifying details &erection procedures while increasing design/USE possibilities; - 'integrating' the building method with mechanical & other subsystems.

Our proposed building METHOD REVERSES standard light frame construction technique & allows for DIRECT CONSTRUCTION with DIVERSE DESIGN OPTIONS;

WINDOW & DOOR UNITS are self-stable & 'structural' elements. Factory-made,cast or composite aluminum/steel/wood units would range in height to,say,'two floors'. Both 'windows' & 'doors' would be gasketted like refrigerator doors

Directly stabilised by angles fixed to the structural window/doors are load-bearing tounge & groove WALL PLANKS which can run up to 12ft or 16ft.between retraints from 'openings& frames. The 8" high planks x any length are concrete/wood composite with insulation/finish integral or added.

Specific details/materials/dimensions/requirements/etc. will be developed/ generated as the project goes on.....

For further discussion, see BUILT*FORM 2 4.131 etc. by maurice SMITH pages 1 & 2

dated 11 september 1972

BUILT* FORM OBSERVATIONS 4.26 maurice SMITH with Gunther NITSCHE and Rachel STRICKLAND Donlyn LYNDON and .....

Fall 1972

Objectives of the course:

1: to learn a way of seeing that will be useful in an understanding and enjoyment of life and toward a particular and developing direction of work for each individual.

2: to explore various methods of representation of the physical world reflecting this (whichever) way of seeing and developing techniques for a variety of purposes.

..... Lance LAVER 1971/72

This introduction to seeing/understanding/enjoying will include a continuous series of observation/drawing/description projects by students (individual and group) interspersed with diverse presentations/discussions by several faculty, visitors,and students. There will be 'field' trips.

e.g.: Gunther Nitsche will be persuaded to introduce the 'traditional' attitudes to 'landscape' and building of Japan.
Donlyn Lyndon will do similar for India, and maybe Bulgaria, and wherever else, including his own work.
I will show some FORM sequences & introduce (again) to you the direct relationship between BUILT*FORM, HOW 'it' is made, and its meaning for associative USE.
Gyorgy Kepes will, hopefully, present his attitude/knowledge/love for 'light and colour' .....
..... and other attractions.....other events.....more stuff.....

Readings towards understanding Built Landscape and Natural Form will be recommended. ...from Gertrude Stein/Charles Olsen /Carl Sauer/St.Exupery/ Schindler/Wright/van Eyck/Hertzberger/Goodman/von Paalen/etc.....

Regular WEEKLY GROUP MEETINGS will be on FRIDAYS form 11a.m. to 2p.m. (lunch included) in NEW EXHIBITION ROOM 4th floor.

TUTORIALS by arrangement.

FIRST FULL MEETING THIS FRIDAY september 15th at 11 a.m.

(for further reference to BUILT*FORM attitudes see, for e.g.:
my notes on "What Is Architecture,Etc For ?..."
in Harvard Educational Review Vol.39 No.4 1969
and in this department's RESarch Vol.2 No.3 May 1971 on "Habitable 3-Dimensional Field Exploration..."
also see;wall'display' in 3rd-floor corridor outside my office (7-301) just past Department Headquarters.
and subject descriptions of BUILT*FORM group studios, and the 1971 B.F. 'package' .
and anything good you come across.....)
we

Built Form Observations
Fall 1972

with Günter Nitschke & Donlyn Lyndon
T.A. Rachel Strickland

Architectural Design
Studio Level 2

Spring 1973

BUILT*FORM 2 through Zed 4.132 etc. for february 5th
ASSEMBLAGE/EXPLORATION 4.144 (or STILL towards synthesis registration day
of ASSOCIATIVE use-place DEFINITION) spring,1973
maurice SMITH : GREETINGS: we will: PAGE ONE

continue the working methods/attitudes of
of last term - (see writings for sept 11th 1972 etc.)
& extend the 'projective vocabulary of possibilities' to 'affect' some
typical existing/normative 'buildings'/'places'. a series of
Last term we generated *3-floor 'housing'proposals, exploring a building
method including the assemblage of air-entrained concrete # with
load-bearing 'FRAMED' 'openings'. composite
self-stable In addition to other organizational
principles,we tried to define the 'public' use-places reciprocally BY the
'private',in a direct action that became 'known' as "ROCKS-IN-THE-SAND",
rather than 'additive'/subdivisive/open/continuous/etc.(for better or worse).
#(it transpires that a German manufacturer IS PRODUCING,in 15 plants, just
such a one-process,insulating,weather resist.material.)

WHATEVER HAPPENED TO 'PUBLIC' BUILDINGS ? What could/should be done ?(when ? how ?)

Careful observation will show the continued existance/'use'/construction of "buildings" that are not predominantly residential ! Experience demonstrates the difficulty (mal) students have in taking a building proposition to 'final' details/materials/colour/etc. (last year,fall 1971,we attempted to generate a complex from adbuilt'"distribution" to which specific other uses could then be added.The absence of total contex demanded active 'theoretical' prediction of physical possibities - which many students found very difficult.)
Each "design" phase/'issue' DOES make a partially-independant(ADDITIVE) contribution to the 'whole'....so this term there will be THREE partial-design SHORT PROJECTS:

"....!I forgot something. I forgot about the TASK the Duke will set you.'
The minstrel(Zorn) thought of swimming lakes too wide to swim, of turning
liquids into stone, or finding boneless creatures made of bone.
....'How came you here?' he asked. 'And can you leave ?'.....(Thurber's'13 Clocks'p.42)

'Redesign' PART(s) of THREE existing (kinds of) BUILDINGS, Public,or partly so, remaking parts/places/decisions that architects/designers have certainly made or helped make.

(1): street &'public' entrance/floor/region of a (recently)completed city edifice.
either (A): new John Hancock Bldng. or(B): Boston Public Library Addition
or (C): your other approved choice.
(2): Eating place/ restaurant of institutional or commercial size.
either (A); M.I.T.Student Union. or (B): Traynors Flower Shop, corner Newbury & Berkeley (soon to be converted) or (C): your other approved choice.
(3): Sharable built places in ("Public")Housing; i.e. use-definitions to be added.
either (A): Saranac Apartments,Columbus Ave. - adjacent to site for Built*Form # 3,recreation-complex (Halasz) project. or (B): Americen Park, Lynn (say a 20'unit' group, see Wampler project) or (C): your other approved choice.

WARNING:
While I continue to believe (on evidence) that professional offices AND 'the citizens' ARE open to capable designers of "associative" organization, consumate (!) skill can hardly be developed in much less than 'several' years! So students are advised to be NOT (self-)MISLED by the apparent "reality" of the project buildings/sites - or of others, your choice.
This studio continues to offer excercises in the PROJECTION of actual POSSIBILITIES, NOT PROBABILITIES ! (Probabilities are what the B.F.group,& others, would see changed). If you consider the "design" of the subject 'buildings' to be O.K. as is, or, worse, GOOD, ... you will probably NOT enjoy our semesters work: (method outline,next page) AND ... there may be considerable 'rhetoric'/criticism/directive 'teaching' etc.

See item (1) (B):above: In B.A.D. of january 30,1973 (p.35) in a short reportage headed "THE NEW LIBRARY ... Monument to Poor Planning" on its operation.....
"..(in)the expensive mausoleum-like Boston Public Library building,employees are compiling grievances about the new work place....."
".....Almost unanimously, they prefer the older building....."
There is a photograph of the giant super-lobby.

See item (2) (A):above: The Tech Talk of january 31,1973 shows (p.3) an 'aerial' photograph of part of the Lobdell dining room during the luncheon siege. (Advice is given on when to avoid overcrowding; pre-wrapped sandwiches are mentioned, and names named - who to call with your complaints/suggestions !

WORKING METHOD :

In each 'real-world' project (these places DO exist & ARE used), assume that 'final' definition decisions about use-levels (floors), screens ('envelopes'), partitions/panels/walls',doors/etc/etc. fittings,furniture, light/lighting, materials,colour, et al HAVE NOT YET BEEN MADE, ... (OR! if you prefer, that a certain amount of 'enabling' building reduction/demolition has already been effected.
In each project the major "structure" should be retained; base drawings/plan(s) & section(s) will be 'measured'/prepared by class groups - then printed for entire class to use. (Each individual should have to prepare only ONE context during term).
Activity additions/changes & appropriate 'building' methods/materials will be defined (jointly) during the first week of each project. e.g.:
Project (1): will require addition of uses NOT presently catered for. (1) (B)'s will extend from the specific library 'function'.
(2): will extend to offer a range of physical associations - 1 to 0 (alone) by choice & inside/ouside through, say 1 to 12 (large group) ditto, with varying time, privacy possibilities, etc.etc. light, 'stuff'.
(3): will 'determine' how much of the existing CAN be conserved/retained - IF (what) sharable (?) additional definitions/places are built/made.

In addition to drawings (coloured prints) & models, (some) typical detail(s) will be designed. Material(s) finish/colour & some part of light/lighting must be essayed.
EACH SHORT PROJECT WILL TAKE ABOUT FOUR WEEKS TOTAL.
It should be possible (for you) to work on more than one of them at a time, but I have my doubts.....

Attendance (&,hopefully,participation) at Wednesday studio meetings will be mandatory. ...for blackboard discussions/discourses & slide/illustrations by both 'us' AND ALL students (by assigned/voluntary rotation). It is not possible to rely on over-the-board criticism to make up for what you dont GET or MISS at/in the group meetings. Mondays & Fridays & (?) will be for small group &/or individual project criticism(s).

Maria O'Grydziak will be assisting/associating with us (again). & whoever else.

The work(s) should incorporate/BE what you/we think we KNOW about people's (you,me, us, them,etc) proclivities/desires/needs'/hopes/etc. - the purpose is NOT to deny the validity of resposible'programming'etc. but to short-cut to the (practice in making) physical-realization projection. The parallel assumption(s) that for e.g. you had/have NO CONTROL over the larger contex OR'over'the major building methods decision(s) simulate the norm, in or out of 'an office'. (What WOULD you have done?)

'speaking' of "AN ARCHITECTURE OF PARTICIPATION" (1971; Melbourne Archl.Press) Giancarlo DE CARLO says it will not be ".....authoritarian.....or useless, ".....if it can be marked by growing participation of the users in its formal and organizational definition; with architects assistance, it becomes much less the representation of its designers and much more the representation of its users....."

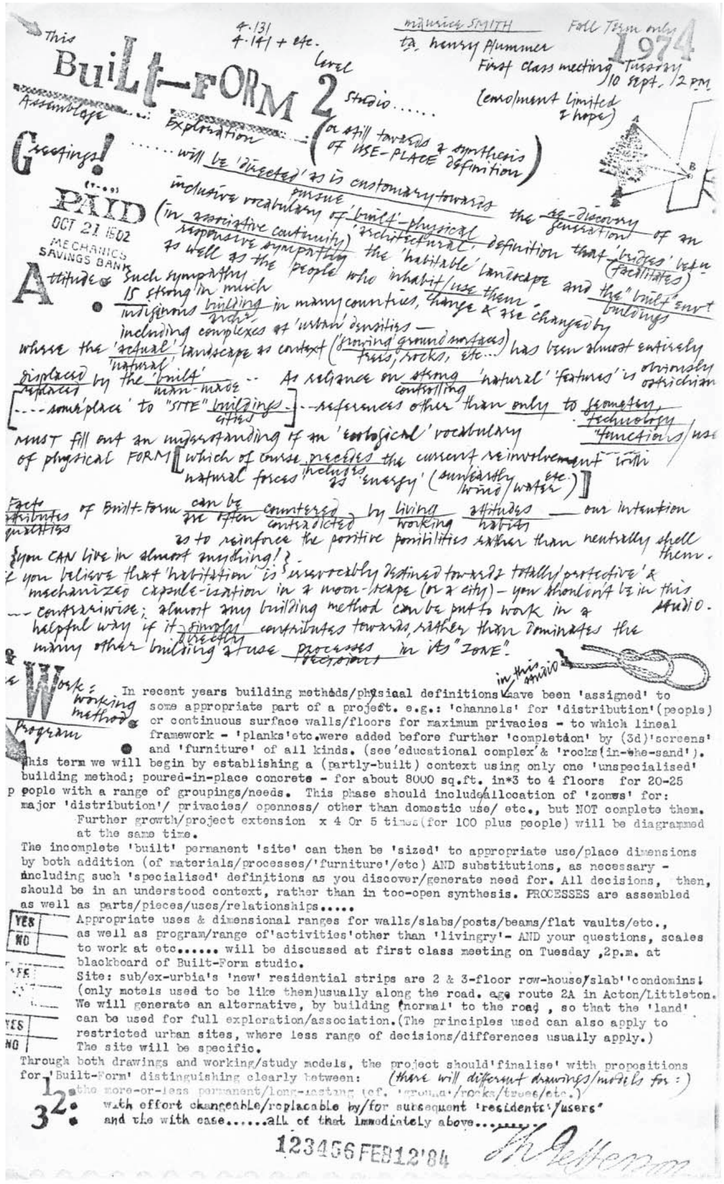
Designers must be able to contribute to 'this'(is)a developed inclusive/extended definition vocabulary/grammar so that the 'people' CAN have positively associative 'environments' (c/f choice-landscapes) ----- in opposition to the 'mechanical / minimal/creeping module, or bombastic/formalistic/end-resultisms of the so-called 'image-makers'. We have to help generate a 'growth/use-form' that IS compatible (regardless of 'density') with the associative definitions of indigenous (or 'folk') building, the intrinsic 'meaning(s)' of use-definitions/BUILT*FORM has to be discovered. It IS possible to design specific but 'open' definitions for varied/changeable activities/uses that conform to ..... (again Giancarlo
".....(the) recognition that the patterns of individual & social behaviour are changing more and more quickly. Therefore it seems unreasonable to freeze any group of activities into a stiff and complete physical structure....."

from J.C.LOUDON'S "encyclopedia of Architecture" ,London 1833 (my edition 1869) in the preface : ".....The greater portion of mankind, in even the most civilized countries, has hitherto been kept in the dark with regard to what constitutes truth & excellence in all arts & professions, the practice of which has been limited to certain associations or corporations of individuals. Hence the sciences of .....have been comparative mysteries, & have, consequently, like Architecture, remained nearly stationary for ages.....

".....Another cause which has retarded the progress of all arts & professions is the practice,common in most of them, of implicitly following precedents; or of adhering rigidly to rules (made perhaps in a former age) instead of testing those precedents & rules by fundamental principles, and adapting the latter to the state of society for the time being....."

Architectural Design Studio
Level 2

Fall 1974



Built-Form assemblage exploration (or still towards a synthesis of USE-PLACE definition)
. . . . will be 'directed' as is customary towards / pursue the re-discovery/generation of an inclusive vocabulary of 'built'-physical/'architectural' definition that 'bridges' between / facilitates (in associative continuity / responsive sympathy) the 'habitable' landscape and the "built" environment / buildings as well as the people who inhabit/use/change & are changed by them.

Attitude: Such sympathy IS strong in much indigenous building/architecture in many countries, including complexes of 'urban' densities--where the 'actual'/'natural' landscape as context ('growing' ground surfaces / trees, rocks, etc.) has been almost entirely displaced/replaced by the 'built' / man-made.
As reliance on strong/controlling 'natural' 'features' is obviously ostrichian
{. . . some'place' to "SITE" buildings/cities} references other than only to
geometry / technology / functions/use / . . .
MUST fill out an understanding of an 'ecological' vocabulary of PHYSICAL FORM
{which of course precedes/includes the current reinvolvement with natural forces as 'energy' (sun/earth/wind/water/etc.).

Facts/attributes/qualities of Built-Form
can be / are often
countered/contradicted by living/working attitudes/habits--
our intention.
(You CAN live in almost anything!)
If you believe that 'habitation' is irrevocably destined towards totally 'protective' & mechanized capsule-ization in a moonscape (or a city)--you shouldn't be in this studio.
Contrariwise; almost any building method can be put to work in a helpful way if it simply/directly contributes towards rather than dominates the many other building & use processes/decisions in its "zone."

Work: working method: program:
In recent years building methods / physical definitions [in this studio] have been 'assigned' to some appropriate part of a project, e.g., 'channels' for 'distribution' (people) or continuous surface walls/floors for maximum privacies--to which lineal framework--'planks' etc. were added before further 'completion' by (3d) 'screens' and 'furniture' of all kinds. (See 'educational complex' & 'rocks-in-the-sand'). This term we will begin by establishing a (partly-built) context using only one 'unspecialized' building method, poured-in-place concrete--for about 8,000 sq. ft. in 3 to 4 floors for 20-25 people with a range of groupings/needs. This phase should include allocation of 'zones' for major 'distribution' / privacies / openness / other than domestic use / etc., but NOT complete them. Further growth / project extension 4 or 5 times (for 100 plus people) will be diagrammed at the same time.
The incomplete 'built' permanent 'site' can then be 'sized' to appropriate use/place dimensions by both addition (of materials/processes/furniture/etc.) AND substitutions, as necessary--including such 'specialized' definitions as you discover/generate need for. All decisions, then, should be in an understood context, rather than in too-open synthesis. PROCESSES are assembled as well as parts/pieces/uses/relationships . . . .
Appropriate uses & dimensional ranges for walls/slabs/posts/beams/flat vaults/etc., as well as program/range of 'activities' other than 'livingry'--AND your questions, scales to work at etc. . . . will be discussed at first class meeting . . . .
Site: sub-ex-urbia's 'new' residential strips are 2 & 3-floor row-house/slab condominiums (only motels used to be like them) usually along the road, e.g., Route 2A in Acton/Littleton. We will generate an alternative, by building 'normal' to the road, so that the 'land' can be used for full exploration/association. (The principles used can also apply to restricted urban sites, where less range of decisions/differences usually apply.) The site will be specific.

Through both drawings and working/study models, the project should 'finalize' with propositions for "Built-Form" distinguishing clearly between:

1. the more-or-less permanent / long-lasting (cf. 'ground'/rocks/trees/etc.
2. with effort changeable / replaceable by/for subsequent 'residents'/'users'
3. and the with ease . . . all of that immediately above . . . .

Architectural Design Studio
Level 2

Fall 1975

Projective Built-Form Assemblage - Exploration
yes, still towards a working theory / vocabulary / synthesis of Associative USE-PLACE Definition & the "habitable" landscape . . .

4: Propositions should distinguish clearly between
A. the > or < [more or less] permanent . long-lasting (cf. ground / rocks, woods, etc.)
B. the with-effort changeable/replacable by/for subsequents.
C. the easily . . . changeable . . .

If you have none at hand, you must find some--quick! and they must pass muster (me). Examples found e.g. from the BUILT-FORM reference list last year . . . . collections of regional/indigenous builders., the 2-vol. Portugal by their [equivalent of] AIA . . . E. A. Gutkind's massive series on European settlement patterns . . . Photographs of landscapes natural/built, macroscopic &/or microscopic . . . . from air views to compound crystal structures . . . farm complexes, villages, rock churches, etc. Contour maps of actively reciprocal sizes - land/water - ravines/streams etc.
Did you learn/discover anything in B.F.O.?

GENERAL WORKING METHOD:
During/at each stage/phase in the evolving work (say weekly/fortnightly) printable drawings must be made of your thus-far thinking. The work is cumulative. Sepias can be ink-added to in the next 'round.' Drawings could be "exchanged" with other citizens & should later be bookletted.
AT ALL TIMES, the work must keep/(maintain/contain/evince/ . . .) some of the physical qualities/attributes you identified in your selected references.

1. First "design" / "generate" a habitable landscape / site, region (drawings & model) for between 1000 & 2500 people . . . (we will discuss size). Should be "reciprocal" with other built / non-built territory. Specific, but limited access. No qualitative differences between "working" & "living" environments. No building types. But, of course, differences in / ranges of FORM & SIZE. Built Form must be USE-FORM. Aspect/Access is real.
2. Your "built" landscape can now be 'converted' into probable buildings / ground form → 2-sided surfaces / 1-sided surfaces.
3. Building methods will be selected/assumed/designed so that portion of your project can be "built" at 1/8" or ¼" scale. Now you have a FORM context for the "SMALL IS BETTER." Include the range of several small private, though shared, to "public" use-definitions, both inside & outside, built & unbuilt. Also drawings and model.

In all the 'GOOD' places, NO use-zone was very far (100' or less) from a strong, recognizable, physical FORM definition / reciprocal edge. One definite place extended / "metamorphosed" into the next. Building materials were "real," & used directly, vigorously, & in many ways.
With some direct help from what is (has been done), it has to be possible to project livable satisfying complexes of similar conviction/qualities.
We must identify principles of organization, distribution, etc. and USE/project them as the bases for our realizations. Rational understanding of the universal meaning of form is mandatory IF we are to be other than automated dupes or egocentric product stylers.

Now in addition to what we will show/bring -- you must use your own references of additive, associative GROWTH/USE FORM, as distinct from object-isolationism.

From Feb. through June, we (family) headquartered in 3 successive very habitable regions & <u>many</u> other places in-between.

First in the middle of a 400-700 warmly-yellow sandstone village that climbed a steep cliff along the Dordogne. Almost every house was different, (the same building methods & form families) with varying views of the flood/farm plain across the river, which turned to enlarge reflective sunsets. A visitable castle above all, & a seeable, reachable end to the size of the town. The few narrow streets walkable, (some only walkable), cars parked down by the river. Visible, hearable school. Compact but not cramped livingry. Bakery, butcher, 2 grocers, garage; all that stuff. Croissants & fine local plonk for 50L. So what? So the size was good AND the FORM of that SIZE . . . .
(Hotel de la Poste for long Sunday lunches.)

Next to an isolated "3-unit" farmhouse at the head of a canyon at the edge of Provence's Luberon Mountains. Everything had happened there! It was all over, and observable. The site lived-on continuously from the neolithics. Caves, middle-aged terraces on the slower slopes, magnificent weathered stone defensive walls. Fortress rock promontoried ½ mile away. Water & wild flowers in canyon floor, narrow, ruins of last-century farm buildings. Quiet. Nightingales. The range/state of addition to / change of the "found" landscape remarkably direct/clear. Undercut cliff wall offering shelter--walled around--then its "lid" supports another level with the original rock form still intact . . . etc. Collage of form & materials--very rational. 1 km away, an extended complex for 50 people (?) 4 buildings or 6 . . . a continuous but specific growth-form that could have gone on, but didn't . . . very specific/particular the way it is.

Thirdly in a continuous surface (mostly 'washed') ex-fishing village halfway between Rome & Naples. 1000 or 1500 people on a promontory over long beaches both ways--(a 'new' apt. 'town' in one direction below, & Tiberius' summer palace ruin at 2/3 mile up the other.) The entire place except for a single wheelable top access a leaf-vein splitting of steps & stairs. After the first 50 feet of level street from piazza--<u>all</u> the remaining public access is steep ramped/stepped. No cars in. No way! Levels made for privacy of living as well as particular access. Original rocks part of the built continuous surface vocabulary. No attempt to "tame," subdue.

This session will try to help develop confidence in projecting limited-sized complexes by first "designing" the larger "BUILT LANDSCAPE" context in which to work. This [there is?] infrequency of dominating "natural" sites in contemporary 'problems'; & without such (yes, theoretical) effors--designers/citizens are mostly haltered by restrictive / a priori patterns/habits of working, access-giving, grid-stuffing, and 'potato-stamping.'
Even an existing building/complex to observe/alter may, in substitution for a generative exercise, only crutch through that particular analysis/reaction/change.
? WHAT IS / CAN BE THE FORM OF HOW BIG / SIZE?
What are the associative 'FACTS of FORM'?
(as NOT whims, fancies & private hopes.)

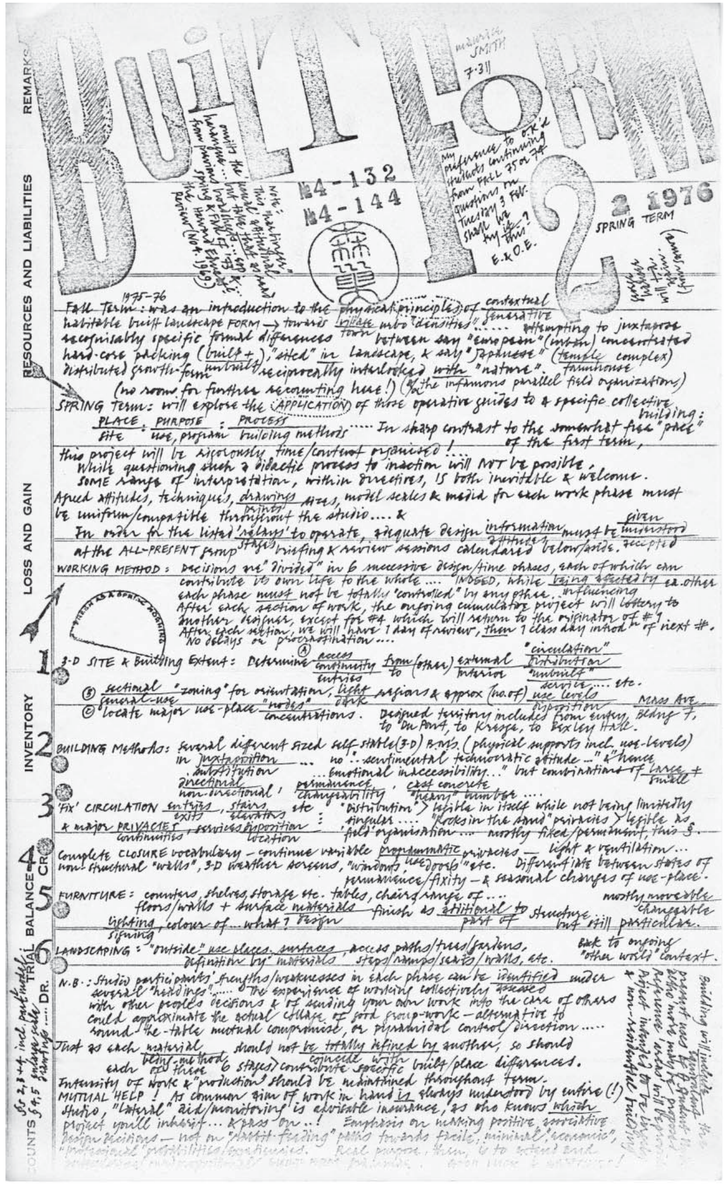
The effects of grossly disassociative over-industrialization include the endless distribution of faceless apartment slabs & boxes inside boxes, machine-paneled condominiums--cities netted by "formless," directionless grids of "circulation"/"services"--nasty nihilistic nets of noplace, nowhere.
While physical form is only one aspect of "life," it is a ??? one. The landscape doesn't lie.

The NY Times reports that Jerry Brown, California's new governor, has banned these topics/words for discussion/use in his cabinet: agenda, systems analysis, data, expertise, redevelopment, comprehensive planning

The veteran 'British' middle-technology advocate / economist E.F. Schumacher continues to gain credence (see ch. 2) "Small is Better/Beautiful" as he continues to warn quietly & sensibly against the
energy sink / power base
plutonium / nuclear reaction
centralization, giantism / complex distribution of . . .
Fuel costs are rocketting to the point where England's largest automated brickmaker, Fletton, will soon actually LOSE to small "hand" producers. (A 'return' to T.L.C., pride-in-the-making quality? F. expends 5x the energy needed in making the bricks, to distribute them!
A possible retreat from the relentless power-hungry machines that have been after us all since the Industrial Revolution?

Architectural Design Studio
Level 2

Spring 1976



Note: This "harbinger" omits the usual attitudinal harangue . . . but take that as read from previous broadsheets . . . esp. spring & fall of '73 & the Harvard Educational Review (No. 4 1969).

Fall Term 1975-76 was an introduction to the physical principles of contextual/generative habitable built landscape FORM → towards village/town urbo "densities" . . . . attempting to juxtapose recognizably specific formal differences between say "European" (urban) concentrated hard-core packing (built+/unbuilt), "sited" in landscape, & say "Japanese" (temple/farmhouse complex) distributed growth-form reciprocally interlocked with "nature."
(no room for further recounding here!) (&/or the infamous parallel field organization.)

SPRING Term: will explore the APPLICATION of those operative guides to a specific collective building:
PLACE PURPOSE PROCESS
site use, program building methods
. . . . In sharp contrast to the somewhat free "pace" of the first term, this project will be rigorously time/content organized! While questioning such a didactic process to inaction will NOT be possible, some range of interpretation, within directives, IS both inevitable & welcome. Agreed attitudes, techniques, drawings/prints sizes, model scales & media for each work phase must be uniform/compatible throughout the studio . . . . &
In order for the listed 'relays'/stages to operated, adequate design information/attitudes must be given/understood/accepted at the ALL-PRESENT group briefing & review sessions calendared below/aside.

WORKING METHOD: Decisions are "divided" into 6 successive design/time phases, each of which can contribute its own life to the whole . . . . INDEED, while being affected by / influencing each other, each phase must not be totally "controlled" by any other. After each section of work, the ongoing cumulative project will lottery to another designer, except for #4 which will return to the originator of #1. After each section, we will have 1 day of review, then 1 class day introduction of next #. No delays or procrastination . . . .

1. 3-D SITE & Building Extent: Determine
   A. access/continuity/entries from/to (other) external/interior "circulation"/distribution/"unbuilt"/service etc.
   B. sectional/general-use "zoning" for orientation, light/dark regions & approx. (no. of) use levels / disposition
   C. Locate major use-place "nodes"/concentrations. Designed territory includes from Entry Bldg. 7 to DuPont, to Kresge, to Bexley Hall.

2. BUILDING Methods: Several different sized self-stable (3-D) building methods. (physical supports incl. use-levels) in juxtaposition/substitution . . . no ". . . sentimental technocratic attitude . . ." & "hence . . . emotional inaccessibility . . ." but combinations of large/small + directional/non-directional, permanence/changeability, cast concrete / "heavy" timber . . .

3. 'Fix' CIRCULATION entries/exits, stairs/elevators etc.: & major PRIVACIES/continuities, services disposition/location
   "Distribution" visible in itself while not being limitedly singular . . . . "Rocks in the sand" privacies > legible as 'field' organization . . . mostly fixed/permanent, this section.

4. Complete CLOSURE vocabulary -- continue variable programmatic use privacies -- light & ventilation . . .
   non-structural "walls," 3-D weather screens, "windows, doors" etc. Differentiate between states of permanence/fixity -- & seasonal changes of use-place.

5. FURNITURE: counters, shelves, storage, etc. tables, chairs, range of . . . mostly moveable/changeable
   floors/walls + surface materials/design finish as additional to / part of structure . . . but still particular.
   lighting/signing, color of . . . what?

6. LANDSCAPING: "outside" use places, surfaces / definition by 'materials' , access paths / trees /gardens /steps / ramps / seats / walls, etc. Back to ongoing "other world" context.

N.B. Studio participants' strengths/weaknesses in each phase can be identified/assessed under several "headings" . . . . The experience of working collectively with other people's decisions & of sending your own work into the care of others could approximate the actual collage of good group-work--alternative to round-the-table mutual compromise, or pyramidal control/direction . . . .
Just as each material / building method should not be totally defined by / coincide with another, so should each of these 6 stages contribute specific build/place differences.
Intensity of work & "production" should be maintained throughout the term.
MUTUAL HELP! As common aim of work in hand is always understood by entire (!) studio, "lateral" aid/monitoring is advisable insurance, as who knows which project you'll inherit . . . & pass on . . .!
Emphasis on making positive, associative design decisions--not on "rabbit-feeding" paths towards facile, minimal, "economic," "professional" probabilities/expediencies. Real purpose, then is to extend and particularize (our) propositional BUILT-FORM grammar?.

Building will include/equivalent the present uses of Student Union although more may be proposed. Reference 'areas' will be provided. Project intended to be largely a non-residential building.

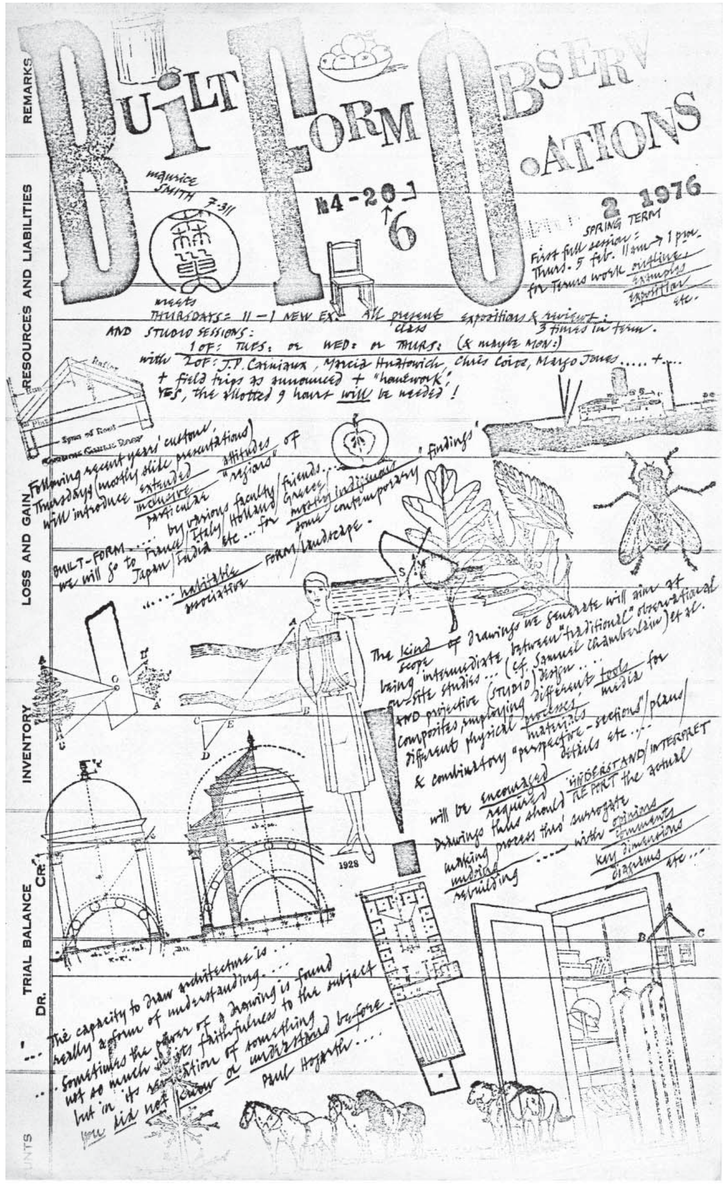
Built Form Observations
Spring 1976

with
Jean-Paul Carniaux, Marcia Hnatowich, Chris Coios, Margo Jones . . . .+ . . .

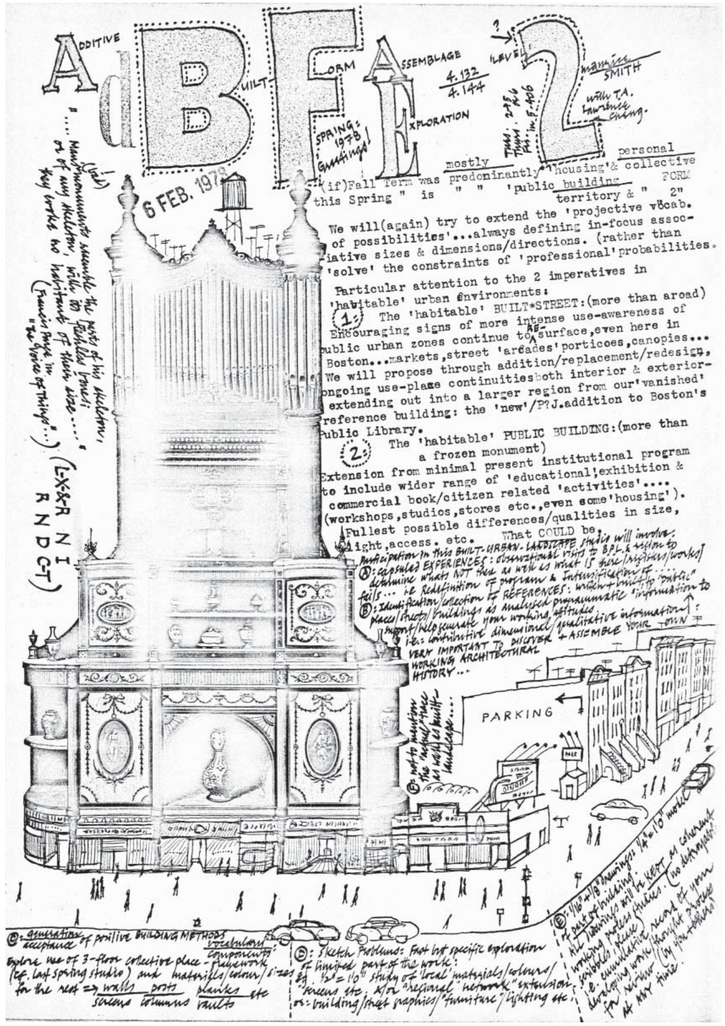
. . . slide presentations will introduce extended/ inclusive/particular attitudes/"regions" of BUILT-FORM …
by various faculty/friends . . . we will go to France/ Italy/Holland/Greece/Japan/India etc. for mostly indigenous / some contemporary "findings" habitable/associative FORM/landscape.

The kind/scope of drawings we generate will aim at being intermediate between "traditional" observational on-site studies (cf. Samuel Chamberlain *et. al.*)
AND projective (STUDIO) design . . .
composites, employing different tools/media for different physical processes/materials & combinatory "perspective-sections"/plans/details etc. . . .
will be encouraged/required.
Drawings thus should UNDERSTAND/INTERPRET / REPORT the actual working process through surrogate undoing/rebuilding . . . with opinions/ comments/key dimensions/diagrams/etc.

"The capacity to draw architecture is . . . really a form of understanding . . . . sometimes the power of a drawing is found not so much in its faithfulness to the subject but in its revelation of something you did not know or understand before."--*Paul Hogarth*



Architectural Design Studio
Level 2
Spring 1978



Participation in this BUILT-URBAN-LANDSCAPE studio will involve

A. capsuled EXPERIENCES: observational visits to BPL & region to determine what's NOT there as well as what IS there/registers/works/fails . . . i.e., redefinition of program and intensification of . . .
B. Identification/collection of REFERENCES: written + built, to "public" places/streets/ buildings as analyzed programmatic information to support / help generate your working attitudes. i.e.: contributive dimensional/ qualitative information. Very important to discover and assemble your own working architectural history . . .
C. Generation/acceptance of positive BUILDING METHODS vocabulary/components: Explore use of 3-floor collective place-framework and materials/colors/sizes for the rest = walls/ screens posts/columns planks/vaults etc.
D. Sketch problems . . . study of "local" materials/ colors/screens etc. &/or "regional network" extension or building / street graphics / "furniture" / lighting etc.
E. . . . drawings & model of part of building. All drawings will be KEPT as coherent working process studies. (No destroyable scribbles, please.) i.e. cumulative record of your developing work / thought process for review (by you + others) at any time.
F. not to mention the "actual" trace as well as built-landscape

Architectural Design Studio
Level 2
Fall 1978

model by Alfred Sanford
channel building system

Level 3 Architectural Design Studio
Spring 1969

Axiomatic that the excesses/poverty self-display/nihilism of much "modern"/current work derives from the limitations / formal illiteracy of the professionals involved.
NOT to blame! money/program/users/makers/. . .
Each factor must be viewed positively.

So an additive vocabulary of physical form must be generated through making too many choices/variations/differences so that in 'REAL' life REAL choices from many possible options can be selected/made.

"Professional"/ academic problem-solving formulars (Harvard/Gropius -esque) produce variously-defined repetitions . . . . WE will have no
- stepped back blocks
- slabs
- gridiron stripes
- towers as isolated objects
- push-pull row houses

All must be reciprocal/continuous with the REAL
- PLACE / ongoing
- SPACE / private

both built/unbuilt "exterior/interior" & the made/found landscape/context
water - rocks - trees - gardens - neighborhood - access . . . etc.
THIS IS A PROGRAM IN ITSELF

Adequate/good particular physical/built definition does/should NOT limit/control "use" of that place/zone/building to the then generating purpose/program. Cf. in time: balconies to bathrooms, roofs to living rm., houses to offices, to shops, to offices, to housing, to . . . .streets to gardens . . . .

In last fall's habitable built landscape studio, many citizens could 'understand'/recognize the physical principles / qualitative attributes of proferred references, but experienced difficulties / confidence loss in finding suitable / applying directly such 'information' generatively to their urbo/village/town densities/schemes.
CONSTRAINTS WERE NOT clear/stringent enough to "BE" real.
For this round, WE will identify/control the participant form families / geometries / building methods+parts so that immediate synthesis can begin . . .
'Behavioral'/organizational attributes/constructions will be projected AS DATA FACT, not opinion.
(Some range of interpretation WILL emerge, of course, dependant on your skills).
The real design exercise, then, is in variable/purposefully collaging/understanding the particular givens--not only to generate worthy alternatives to the Sam Van Dam/ Rick Renner spring theses/contexts but, more important, to extend the range of your own projective formal vocabulary . . . (If you don't have it, you can't use it.) We will assume some of the theses' intent (housing + school), the qurry site + access, . . . but NOT their results!
…
Each section, while very particular / 'leavable' must be seen as incomplete.

1. The by now familiar (?) rocks-in-the-sand privacy / not inside "static" concentrations--(developed from the 9 zone calligraphic frame) from # in 2 supplied sizes,
one directional, one non-directional, will be 'stamped' to generate total/crude site densities/form & distribution, (YES, there will be RULES . . .) in league with major "ground-form" / continuous surface decisions.

2. Add channels; and wall & floor / roof "planks" + "built" windows / 3D screens + habitable bays + partial service concentrations
2A.

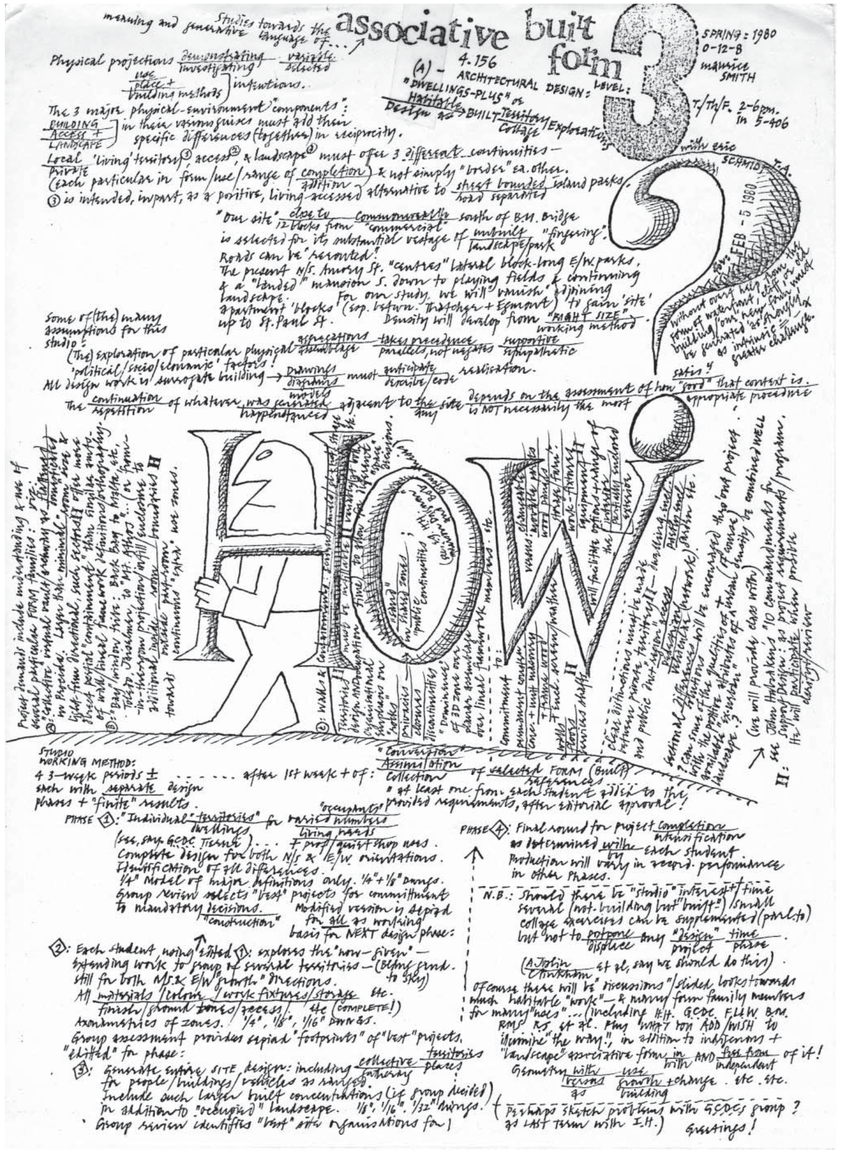
3. Complete legible DISTRIBUTION as field organization in reciprocity and then as vocabulary exploration . . .
& concentrate on one … zone. Complete PRIVACIES/CLOSURE : aspect/light + ventilation/etc. + non-structural separations . . .

4. From 2, continue to differentiate between states of permanence/fixity & seasonal etc. use change

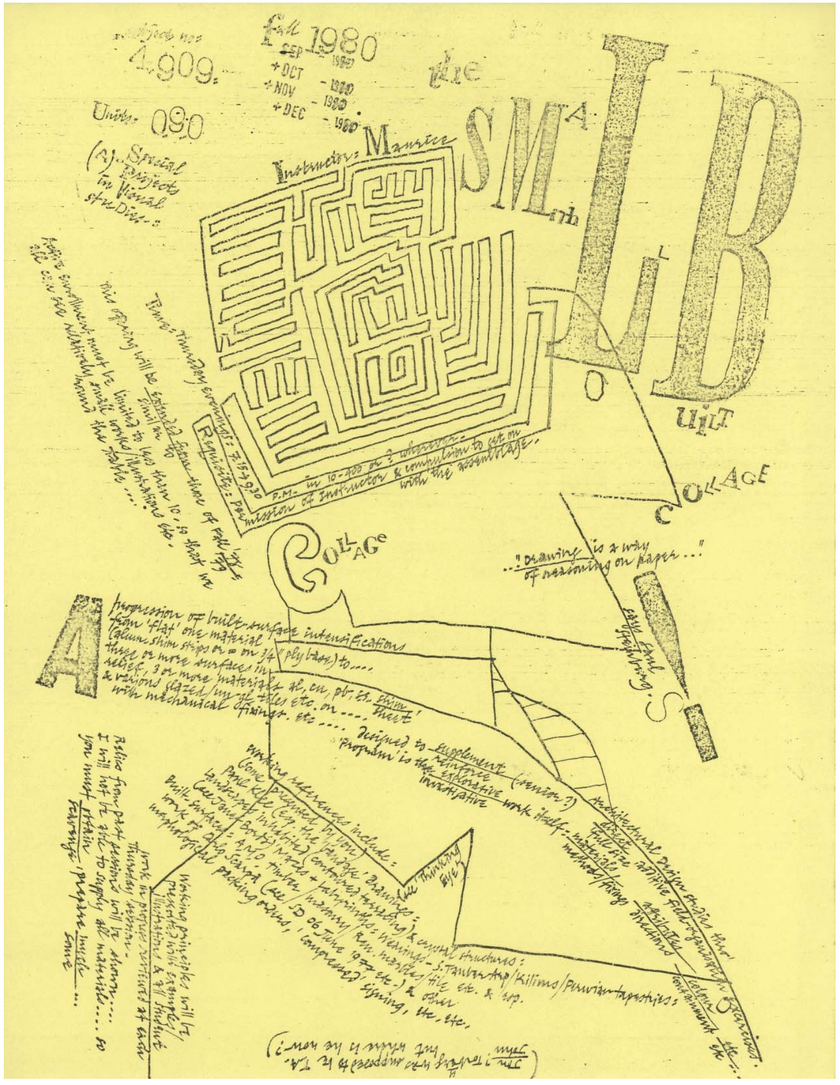
5. "Furniture" storage, stairs, use surfaces / tables etc. and finish materials for walls, floors, etc.
Lighting / COLOR! . . . (Yes, it's REAL).

6. Reevaluation & "redesign," if needed, of original "given" partial-ROCKS . . . . & preparation for further investigation of the less housey aspect of the whole, i.e. larger dimensions (?) for school/commercial/recreational/etc. → into the SPRING

Architectural Design Studio
Level 3
Spring 1980



Small Built Collage
Fall 1980



Requisites: Permission of Instructor & compulsion to get on with the assemblage.

"Drawing is a way of reasoning on paper . . ." –Saul Steinberg

A progression of built-surface intensifications
from 'flat' one material
(aluminum shim strips or – on ¾" plywood base) to . . .
three or more surfaces in
relief, 3 or more materials al, cu, pb, s.s. [aluminum, copper, lead, stainless steel] shim/sheet
& various glazed/unglazed tiles etc. on . . .
with mechanical fixings etc. . . .

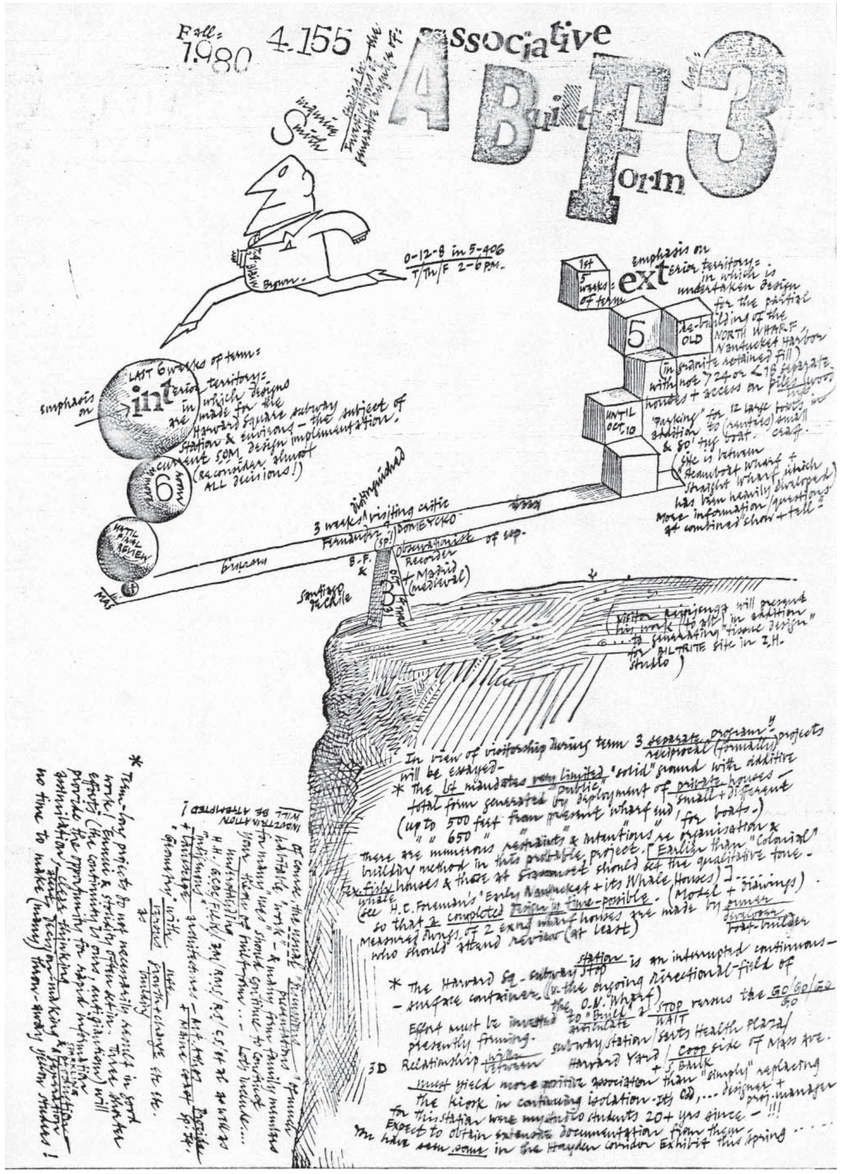
designed to supplement/reinforce (rew???) Architectural Design studies through
direct/full size additive field-organization exercises
'Program' is the explorative/investigative work itself: materials / methods/fixings attributes/directions
color/containment etc./etc.

Working references include:
(some presented by you)
Paul Klee (e.g., the "bandage" drawings: (see Thinking Eye)

Landscapes inhabited (countoured terracing) & crystal structures:
(see Janet Bord's Mazes + Labyrinths: weavings – S[ophie] Tauber-Arp / Kilims / Peruvian tapestries:
Built-Surfaces: A,M,O timber / masonry / Ren. marbles / tile etc. & esp.
work of Carlo Scarpa (see SD 06, June 1977 etc.) & other
morphological packing orders, 'compressed signing, etc., etc.

Working principles will be presented with examples/illustrations & all stuent work in progress reviewed at
each Thursday session.
Relics from past sessions will be shown . . .
I will not be able to supply all materials . . . so
you must obtain/scavenge prepare much/some . . .

Architectural Design Studio
Level 3
Fall 1980



Studies in the investigations of generative language of Associative Built Form

1st 5 weeks of term:
Emphasis on exterior territory: in which is undertaken design for the partial rebuilding of the North Wharf, Nantucket Harbor (in granite-retained fill) with not more than 24 or less than 18 separate houses plus access on wood pilings. "Parking" for 12 large boats in addition to (renters') small craft and 80' tug boat. (Site is between Steamboat Wharf and Straight Wharf, which has been heavily developed.

1st 5 weeks of term:
Emphasis on interior territory: in which designs are made for the Harvard Square subway station and environs—the subject of current SOM design implementation. (Reconsider almost ALL decisions!)

3 weeks distinguished visiting critic Fernando Domeyko, observational recorder of Santiago & Madrid

In view of visitorship during term, 3 separate programs/reciprocal (formally) projects will be essayed—
The 1st mandates very limited "public" "solid" ground with additive total form gnerated by deployment of private houses—small+different (up to 500 feet from present wharf end, up to 650' for boats.)
There are numberous restraints and intentions re organization and building method in this probably project.
Ex. fish/whale houses and those at Siasconset (earlier than "Colonial")should set the qualitative tone--
(see H. C. Foreman's Early Nantucket & Its Whale Houses.) so that a completed design is time-possible.
(Model + drawings) Measured drawings of 2 existing wharf houses are made by owner/developer/boat-builder who should attend review (at least).

The Harvard Sq. subway station/stop is an interrupted continuous-surface containter (v. the ongoing directional field of the Old Nantucket Wharf). Effort must be invested to "build"/articulate a STOP/WAIT versus the GO/GO/GO. 3D relationship with/between subway station/Sert's plaza/Harvard Yard/Coop+bank side of Mass. Ave. must yield more positive association that "simply" replacing the kiosk in continuing isolation. It's odd . . . designer + project manager for this station were my studio students 20+ years since--!!! Expect to obtain extensive documentation from them. You have seen some in the Hayden Corridor Exhibit this spring . . .

INDOCTRINATION WILL BE ATTEMPTED!
Of course, the usual "discussions/presentations" of much habitable "work"—and many form-family members for many "uses" should continue to construct your theory of built form. . . . Let's include Herman Hertzberger, Giancarlo de Carlo, Frank Lloyd Wright, Bernard Maybeck, Rudolph M. Schindler, Carlo Scarpa, et al. as well as "indigenous" + landscape architectures—Mt. Athos, Procida, Maine coast, Spain, Italy.
"Geometry" with/versus/as use / growth+change / building etc.

Term-long projects do not necessarily result in good work! Ennui & stolidity often set in. Three shorter efforts (the continuity is ours, anti-giantism) will provide the opportunity for rapid information assimilation, clear-thinking / alert decision-making & sparkling production/generation—no time to make (many) throw-away yellow studies!

Architectural Design Studio
Level 3
Fall 1982

intrinsic attributes of associative additive built use-form in search of the Particular

1. This studio's work-??? is long-based on distilled "facts"/principles of physical organization/form as described/provided/given as data. Information sources / references usually supplied / shopping-carted as the "needs" arose. (Some students, lacking own resources/searches, never really know why ther are doing what.)

2. Fall's studies will (seem) build firmly on / be aided by the 1/16" plan drawings of collective
   access continuity with particular focus on
   direction
   dimensional self-stability
   built-edge exchange
   all as observed/documented by Tom Hille + Andres Mignucci in "details" of / selected 7 Spanish towns/villages
[. . .]

3. In subjects, organizations of collective access/form through "landscape intensification predominate, with transformation largely limited to "civic" gatherings/plazas etc. Each site contributes to a lateral, additive sequence in transformation -- a formal vocabulary --from the most continuous to the least.

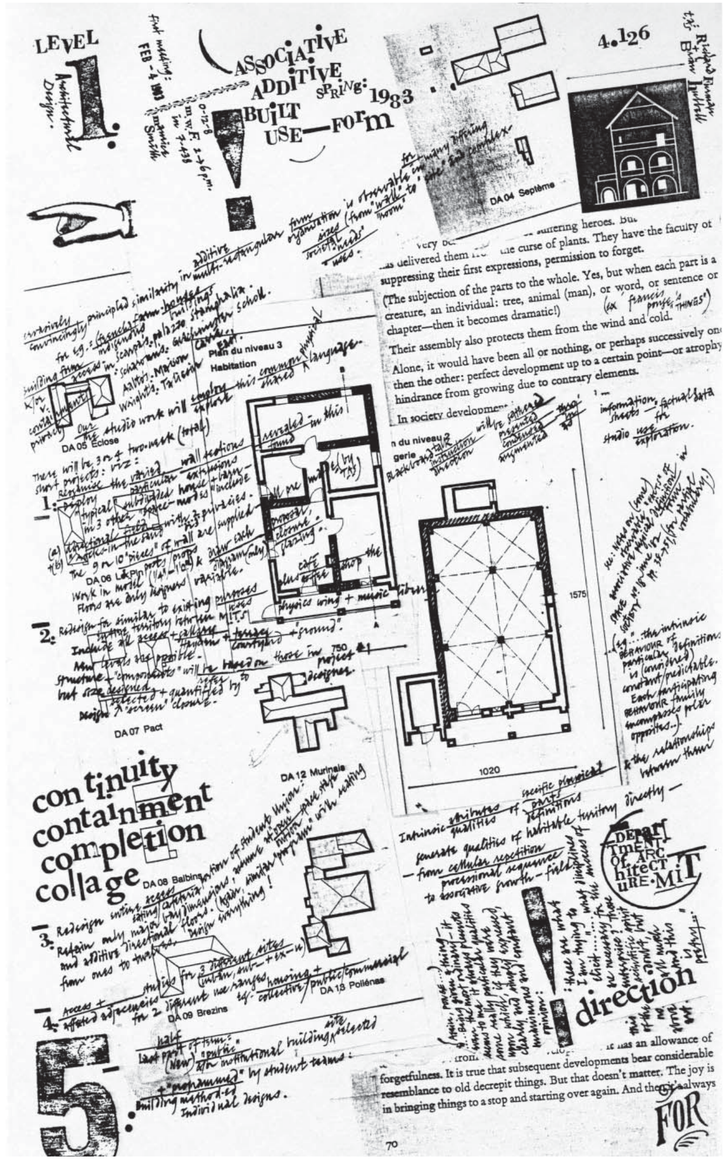
4. Subject of our projective design will be the "translation" of these observed principles into current building methods / local sites. As every realized/built decision is FORMAL "habitable"/particular form must be generated IN-WITH the first diagram as if there is/were a generative landscape e.g. versus nihilistic grids. Identification of requisite physical attributes must be in both the supportive diagram/shadow AND the specific "built" realization.

5. Formal/territorial definitions include largely predictable/finite public/private AND semi- public/private places--i.e. those that are varied by/through optinal users / use-time.

6. The work: 4 weeks of "theory" and a series of short/weekly transformational exercises will precede the major project. Students will select for transformation (with "our" approval) existing built sites / territories. These studies will identify (one of) 3 long-term sites--responsive to your needs/ oeuvre incomplet!

"The world is governed by minimal principles which apply locally in every place. They cannot be expected to overcome the constraints imposed by time and topology . . . . It is just as remarkable to see an absolutely perfect crystal as an assembly of the right atoms with NO crystallinity at all. Neither could occur . . . . Only an isolated world where nothing ever happens can be perfect . . . . [the forms] must be arrived at by local force interactions, but any "chance" event will modify it slightly. As the order continues on in space, sooner or later it must find some other center of order with its own modification. There a conflict will occur. The final order is partial/ regional/incomplete . . ." --Philip Morison, "Broken Symmetries," in *On Aesthetics in Science*, pp 68-70 MIT Press, Wechsler (ed.)

Architectural Design Studio
Level 1
Spring 1983



Being given a thing--even the most ordinary--it seems to me it always presents some really particular qualities upon which, if they were clearly and simply expressed, unanimous and constant opinion: these are what I am trying to elicit . . . . what disciplines are necessary for the success of enterprise? Those scientific spirit doubt, but all much and this is poetry . . . --Ponge

Associative Additive Built Use-Form

Pervasively/convincingly principled similarity in additive / multi-rectangular form/organization is observable for/in many differing sizes / societal "needs" / uses (from "wall" / "room" to "site" and complex
e.g., (French)/indigenous farm-houses/buildings

building form / &/or access
v. containment/privacy
in
Scarpa's Palazzo [Querini] Stampalia
Scharoun's Geschwister-Scholl-Schule
Aalto's Maison Carré
Wright's Taliesin East

Our/the studio work will employ/explore this common/shared physical language. There will be 3 or 4 two-week (total) short projects: viz:

1. Reorganize/deploy the varied/particular wall sections / extensions revealed/found in this "typical" subdivided house+barn in 3 other "space-modes: include (a) directional field + (b) "rocks-in-the sand" with 2 or 3 privacies. The 9 or 10 "pieces" of wall, posts, props are supplied—all pre-made by T.A.s. Work in model (1/4"=1'-0") & draw each / diagram (only) proposal/closure/glazing. Floors are only designers variable.

2. Redesign for similar to existing purposes/uses plus café/coffee shop the entire territory between MIT's physics wing and the music library. Include all access + Hayden Gallery + terrace/courtyard + "ground." Structure + "components" will be based on / refer to those in project #1 but size designed/selected & quantified by designer. Design "screen" closure.

3. Redesign entire access / eating/cafeteria position of Student Union:
Retain only major bay dimensions, assume + "open"/outdoor space stage and additive directional floors. (Again, similar "program" with seating from ones to twelves. Design everything!

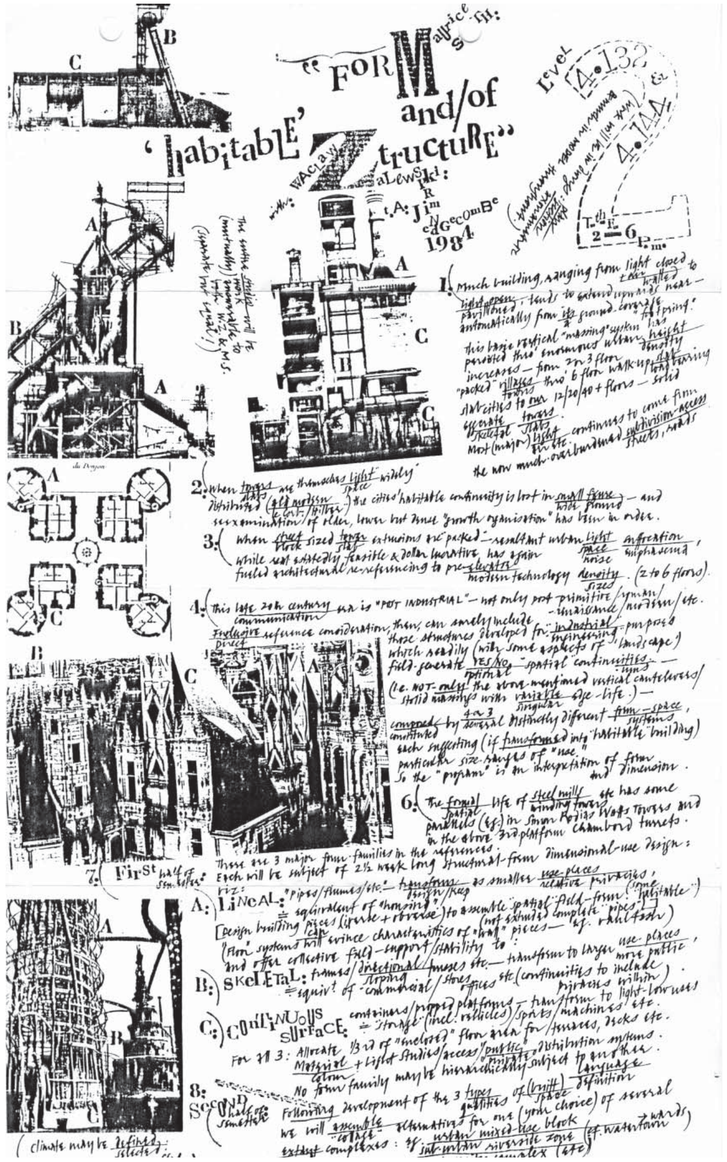
4. Access + /affected adjacencies studies for 3 different sites (urban, suburban, exurban) for 2 different use ranges, e.g., housing + collective/public/commerical.

5. Last half/part of term: (New) "public"/&/or institutional building site selected & "programmed/building method-ed by student teams; individual designs.

Blackboard talk/instruction/direction will be gathered/presented/condensed/augmented through/in/as information sheets—"factual" data for studio use/exploration.
See: Notes on (some) observable "FACTS" of associative physical definition/form in Space & Society #18 (June, 1982) pp. 38-51 (for partial vocabulary).
(e.g., "the intrinsic BEHAVIOR of particular definitions is (considered) constant/predictable. Each participating BEHAVIOR family encompasses polar opposites . . .)
Intrinsic attributes/qualities of specific physical parts/definitions & the relationships between them generate qualities of habitable territory directly—from cellular repetition / processional sequence to associative growth-field.

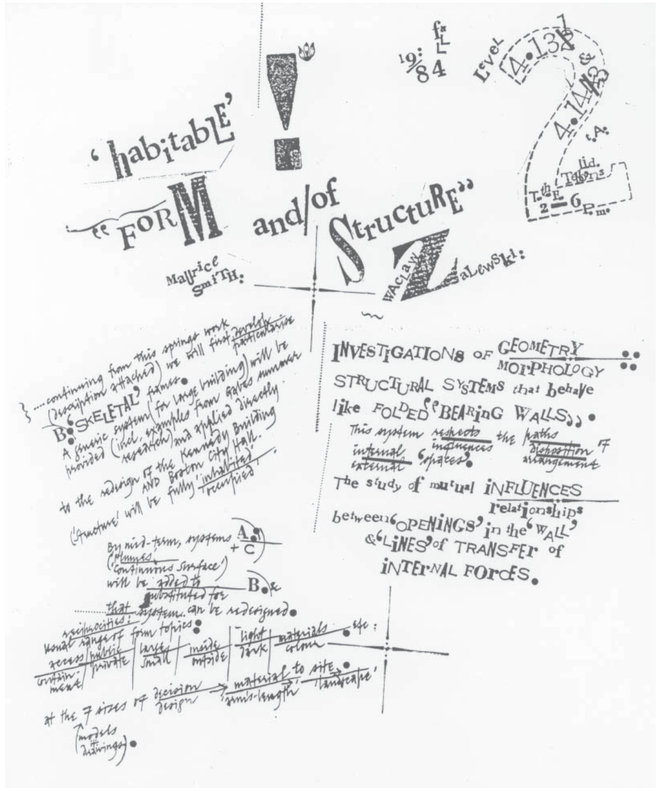
Architectural Design Studio
Level 2
Spring 1984

with Prof. Waclaw Zalewski



Architectural Design
Studio
Level 2
Fall 1984

with Prof. Waclaw Zalewski



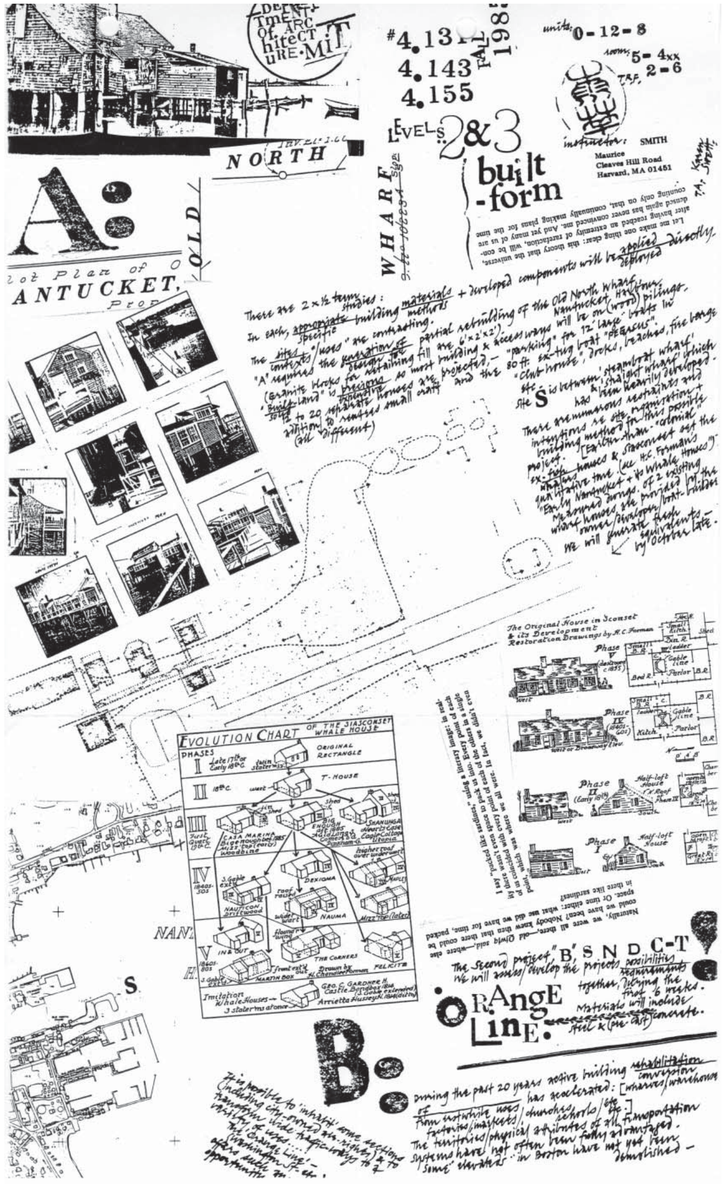
"habitable" "Form and/of Structure"

. . . continuing this spring's work (description attached) we will first develop / particularize B "skeletal" frames.
A generic system (for large building) will be provided (incl. examples from Gabe's summer research) and applied directly to the redesign of the Kennedy Building AND Boston City Hall. ("Structure" will be fully "inhabited"/"occupied".
By mid-term, systems A+C ("planes" / "continuous surface") will be added to / substituted for B & that system can be redesigned.
reciprocities:
Usual range of form topics:

- access/containment
- public/private
- large/small
- inside/outside
- light/dark
- materials/color
- etc.

at the 7 sizes of decision/design:
material/"arm's length" to site/landscape.
models + drawings

Investigations of geometry/morphology::
Structural systems that behave like folded "bearing walls"
This system respects/influences the paths/disposition/ arrangement of
the study of mutual influences/relationships between "openings" in the "wall" and "lines" of transfer of internal forces.



Architectural Design Studio
Level 2
Fall 1985

There are 2 x ½ term studies:
In each, appropriate/specific building materials/ methods + developed components will be applied/ deployed directly.
The sites/contexts / "uses" are contrasting.

"A" requires the generation of / design for partial rebuilding of the Old North wharf, Nantucket Harbor.

(Granite blocks for retaining fill are 6'x2'x2').
"Built-Land" / solid is precious/expensive so most building & access ways will be on (wood) pilings.
12 to 20 separate houses (all different) are projected,
-- "parking" for 12 "large" boats in addition to rented small craft and the 80 ft. ex-tug "Pegasus".
"Club house," docks, beaches, fire barge, etc.

Site is between "Steamboat Wharf" & "Straight Wharf," which has been heavily developed.
There are numerous restraints and intentions re site organization + project.
Earlier-than-"colonial" ex-fish / whalers' houses & Siasonset set the qualitative tone. (see H.C. Forman's "Early Nantucket & Its Whale Houses.)
Measured dwngs. of 2 existing wharf houses are provided by the owner/developer/boat-builder. We will generate fresh equivalents.

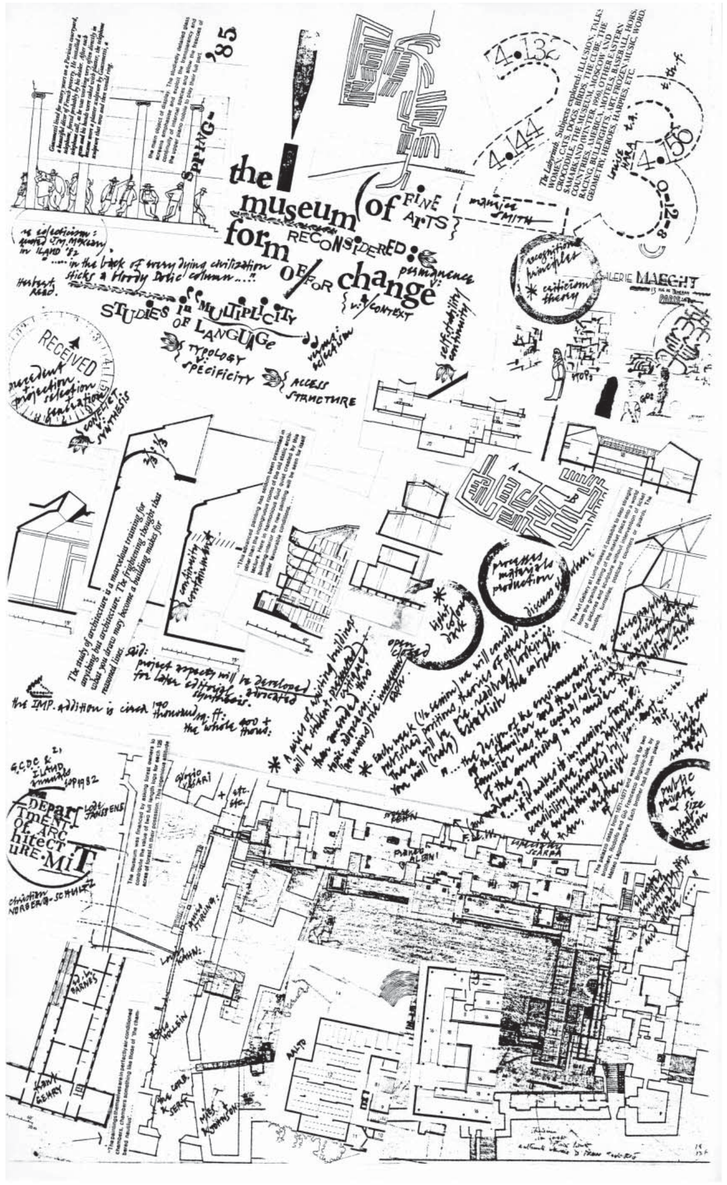
The second project, "B," Orange Line.

We will assess/develop the project's possibilities/ requirements together, during the first 6 weeks.
Materials will include steel & (pre-cast) concrete.

It is possible to "inhabit" some sections (including city-owned air rights) & to transform wide traffic-ways to a variety of uses . . . The "Orange Line" --Washington St. etc. offers such an opportunity.

During the past 20 years active building rehabilitation/conversion of / from erstwhile uses has accelerated: (wharves/warehouses/factories/markets/ churches, schools/etc. etc.). The territories / physical attributes of all transportation systems have not often been fully advantaged. Some "elevateds" in Boston have not yet been demolished --.

Architectural Design Studio
Level 2
Spring 1985



re: eclecticism: “in the back of every dying civilization sticks a bloody Doric column . . .”--*J. M. McKean, ILAUD 1982 Herbert Read*

“The study of architecture is a marvelous training for anything but architecture. The frightening thought that what you draw may become a building makes for reasoned lines.” --*Saul Steinberg*

the museum of Fine Arts reconsidered:
form of/for change
permanence v. change v.:/context

studies in multiplicity of languange
versus: selection

typology v. specificity

access
structure

self-stability
continuity

recognition
principles
criticism
theory

conflict v. synthesis

continuity
containment

light
color
dark

open
closed

processes
materials
production

said: project aspects will be developed/advocated for later editorial synthesis.
The I.M. Pei addition is ca. 170,000 sf; the whole, 400,000+.
A series of existing buildings will be student-presented/critiqued, then amended through topic-advocacy,
(au moins) one museum each.
Each week (1/2 session) we will consider / discuss elsewhere-published positions, theories of others . . .
There will be pre-readings/lookings.
You will (help) establish the subjects.

“. . . the design of the environment is a choreography of the familiar and the surprising in which the familiar has the central role, and the major function of the surprising is to render the familiar fresh. (and ?? ?) . . .”--*Charles Moore*

“. . . if it makes its impression from its own unique inner dependent sensibility, untroubled by ignorant ? of everything foreign to it, then whether it is born of rough savagery or educated sensitivity, it is integral and alive . . .”

see *ILAUD Annuals*, esp. 1982

Giancarlo de Carlo
Lode Janssens
Christian Norberg-Schultz
Giorgio Vasari
James Stirling
Louis Kahn
Edward Larrabee Barnes
Frank Gehry
Hans Hollein
Le Corbusier
Sert
Mies
Johnson
Aalto
Sverre Fehn
Franco Albini
FLLW
Scarpa

Architectural Design Studio
Level 2
Fall 1986

There are 3 (yes, three) studies/projects of approx. 6, 3, & 6 weeks:
of widely different sizes /scope
(to experience constancy of the principles).

In each, appropriate/specific building materials/ methods + developed components will be applied/ deployed directly.
The sites/contexts / "uses" are contrasting.

A is the (generic) (visible) city reconsidered: !What should THEY have done?
In the late 1950s, an extensive past/area of Boston's West End, north of and bounded by Cambridge Street and the North End was mercilessly razed / totally destroyed to make way for the "NEW" Center City. City Hall etc. was part of this, & the [Sears] Crescent, & Govt. Center, & so, too, were/was the "If you lived here, you'd be home now" apartment blocks [of Charles River Park]. Our site & program is a piece of the more disastrous laissez-faire / developer's special. It now includes a 200'+ deep x 300'+ wide 3 floor parking "lot" open to Cambridge St.; a Holiday Inn, & office block forming 2 sides of the resultant "U", with ground floor "shopping" under the offices, continuing to a Stop & Shop food market, bank, clothes, stationer, books, etc.
+ 2 or 3 cinemas in Inside of "U".
Access to beyond the site (housing) is much used.
The opposite side of the "U" would access the Mass. General [Hospital].
"THEY" did everything "wrong." WE will do it right. (The hotel will become housing, otherwise)
(Not as approx. suburban so-called "MALL").

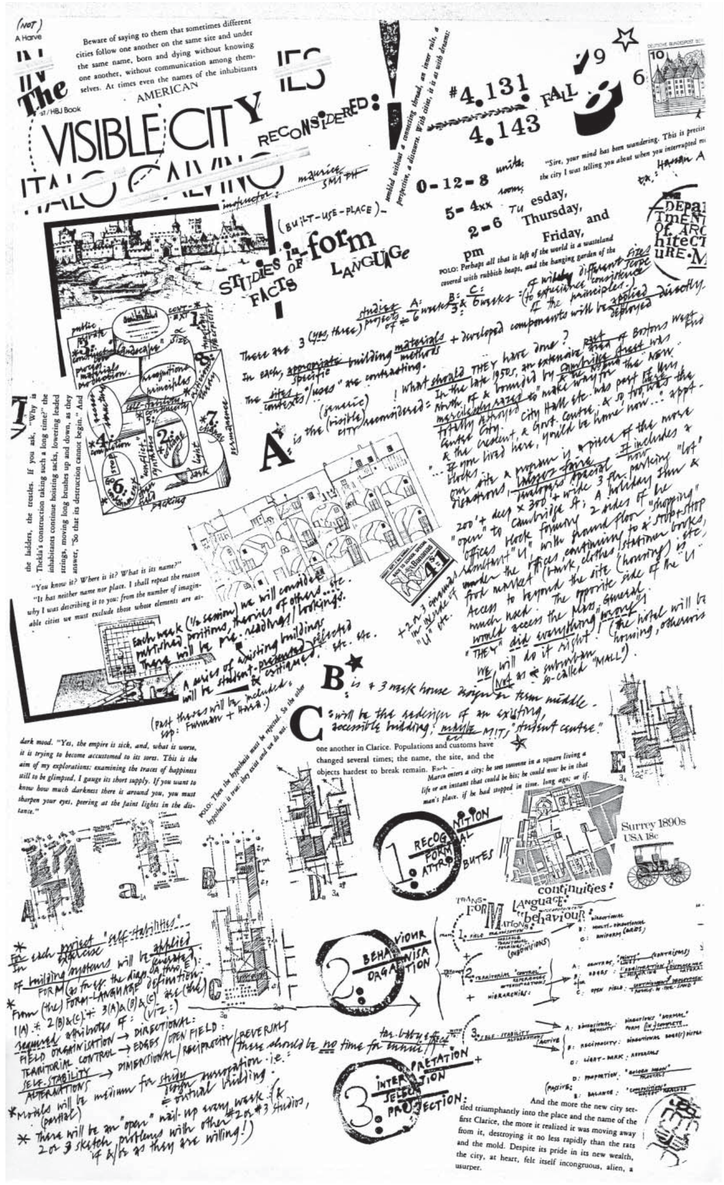
B is a 3 week house design

C will be the redesign of an existing accessible building, maybe MITs "student center."

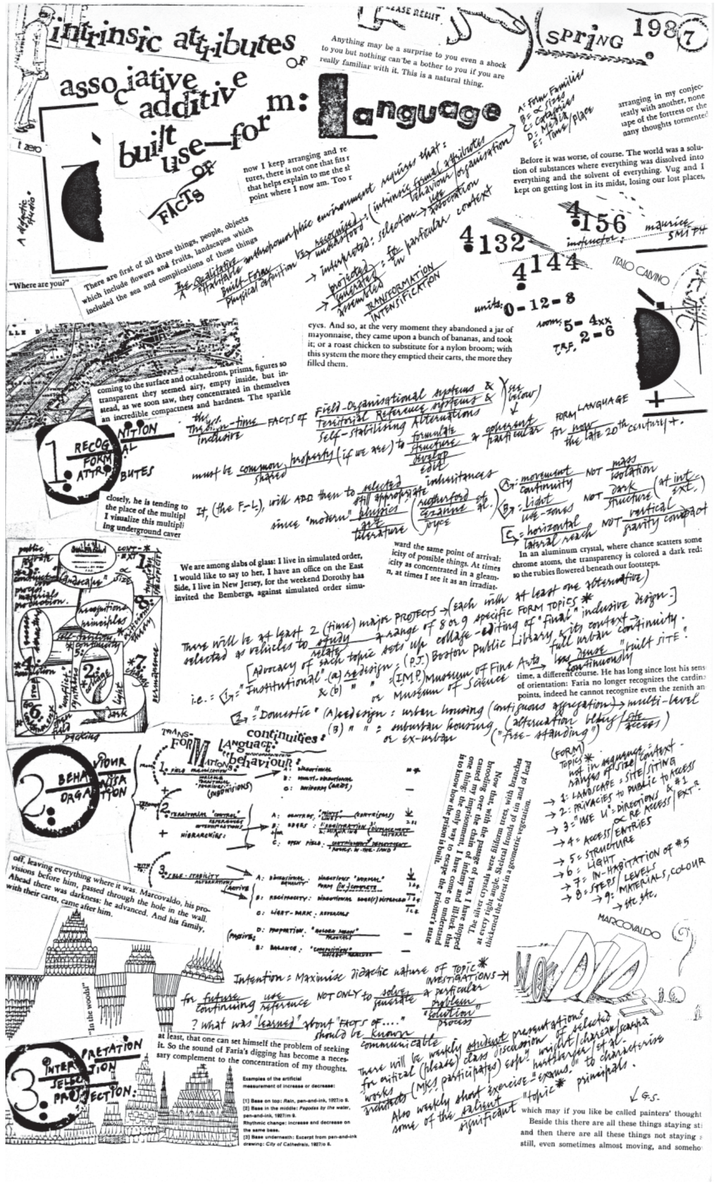
For/in each project/exercise "self-stabilities" of building systems / FORM will be applied / generated from (the) FORM-LANGUAGE definition.

?????

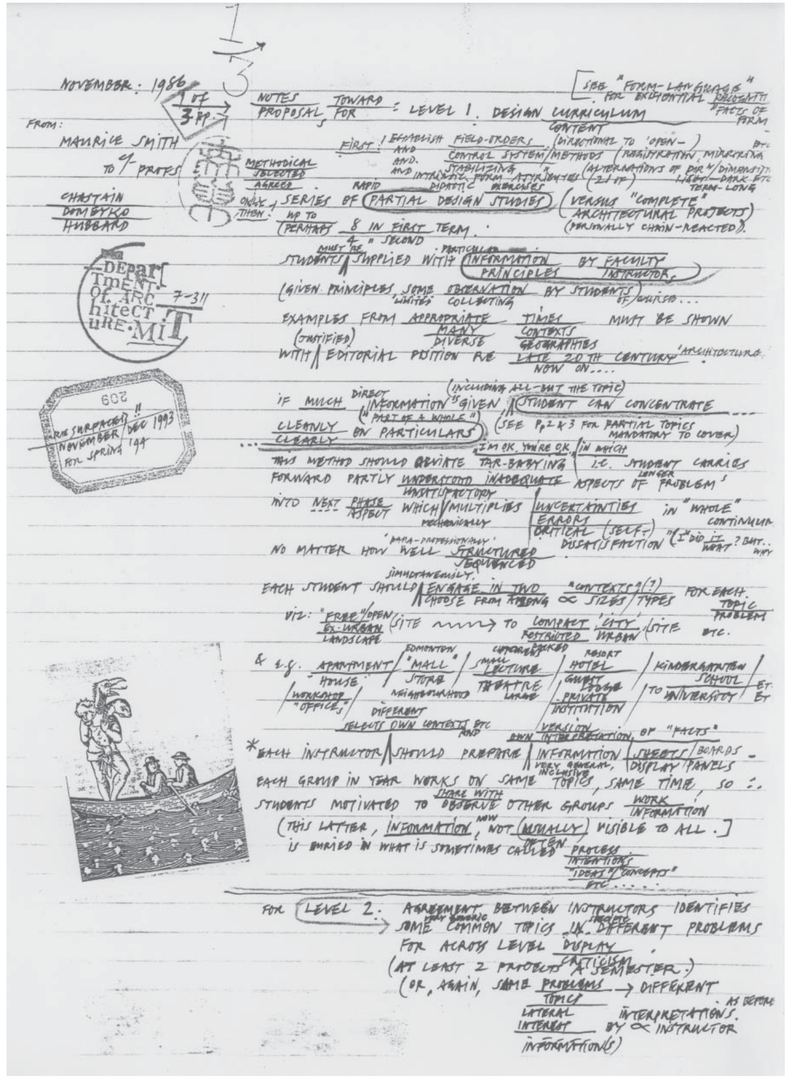
field organization → directional
territorial control → edges / open field
self-stability / alternations → dimensional / reciprocity / reversals



Architectural Design Studio
Level 2
Spring 1987



Notes/Proposal Toward/For Level 1 Design Curriculum
November 1986



(with implications for Level 2)
See "Form-Language" for existential recognition / "facts" of form
From Maurice Smith to Profs. Chastain, Domeyko, Hubbard

First! Establish
- field-orders (directional to open)
- control system / methods (registration, mirroring, etc.)
- stabilizing methods (alternations of direction/dimension, light/dark, etc.), term-long
- intrinsic form attributes (21 of)

Methodical/selected/agreed rapid didactic exercises

Only then! Series of partial design studies (versus "complete" architectural projects)(personally chain-reacted), up to perhaps 8 in first term / 4 in second term.

Students must be supplied with particular information/principles by faculty/instructor. (Given principles, some limited observation/collecting by students, of course.)

Examples from appropriate/many/diverse times/contexts/geographies must be shown, with (justified) editorial position re late 20th century / now on . . . "architecture"

If much direct information is given (including all-but the topic), student can concentrate cleanly/clearly on particulars ("part of a whole"). (See pp 2 & 3 for partial mandatory topics to cover.)

This method should obviate "I'm OK, you're OK" / tar-babying in which / i.e. student carries forward partly understood inadequate / unsatisfactory aspects of longer problems into next phase/aspect which mechanically multiplies uncertainties/errors/critical (self-)dissatisfaction (I did it/what? But why?) in "whole" continuum no matter how "para-professionally" well-structured/sequenced.

Each student should simultaneously engage in two / choose from among [multiple] contexts? / sizes / types for each topic/problem, viz. "free"/open / exurban / landscape site to compact/restricted/packed city/urban site, etc.

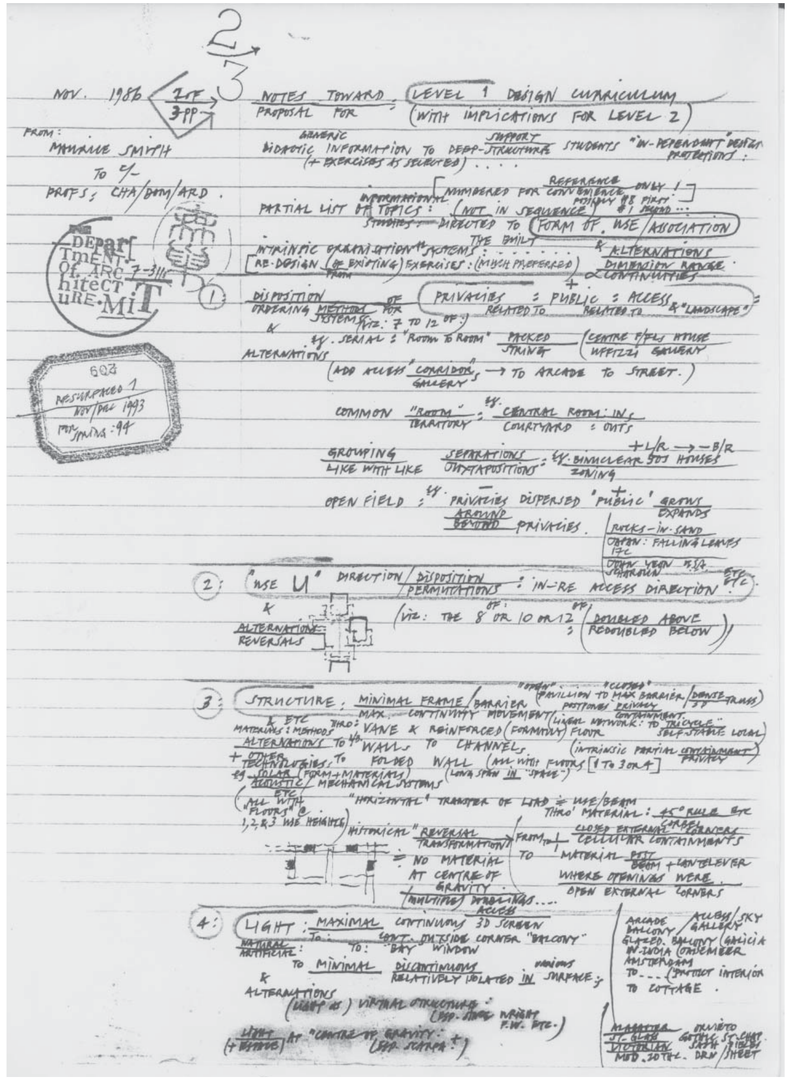
& e.g.,
- apartment /house
- Edmonton "mall"/store
- Childrens small lecture / theater large
- Resort hotel / guest lodge / private institution
- Kindergarten school / to university
- Workshop / offices
- Neighborhood

Each instructor / selects own/different contexts etc. and should prepare own version/interpretation of "facts" information (sheets, boards, display panels). Each group in year works on same very general, inclusive topics, same time, so students motivated to share with / observe other groups' work/information. This latter, information, now not (usually)/often visible to all, is buried in what is sometimes called process/intentions/"ideas"/"concepts"/etc.

For Level 2, agreement between instructors identifies some very generic common topics in specific different problems for across-level display/criticism.

(At least 2 projects a semester.)

(Or, again, same problems/topics / lateral interest / information > different interpretations by each instructor as before.



Didactic generic information (+ exercises as selected) to deep-support/structure students' "in-dependent" design projections.
Partial list of informational topics/studies,{numbered for reference/convenience only! Possibly #8 first, #1 second, not in sequence} directed to the built form of use/association & alternations / dimension range / continuities.
Re-design (of/from existing) exercises (much preferred).

Intrinsic organizational systems:

1. Disposition / ordering methods/systems of/for **Privacies** related to **Public** related to **Access & "landscape":**
& (viz: 7 to 12 of) e.g. serial: "room to room" packed/string (center French farmhouse / Uffizzi Gallery
Alternations
(add access "corridor"/galleries > to arcade to street)
Common "room"/territory: e.g., central room:ins / courtyard:outs
Grouping / like with like separations/juxtapositions: e.g. binuclear 50s houses +LR>-BR / zoning
Open field: e.g., privacies dispersed "public" grows/expands around/beyond privacies
Rocks-in-sand / Japan 17th c.: falling leaves / John Yeon, Scharoun

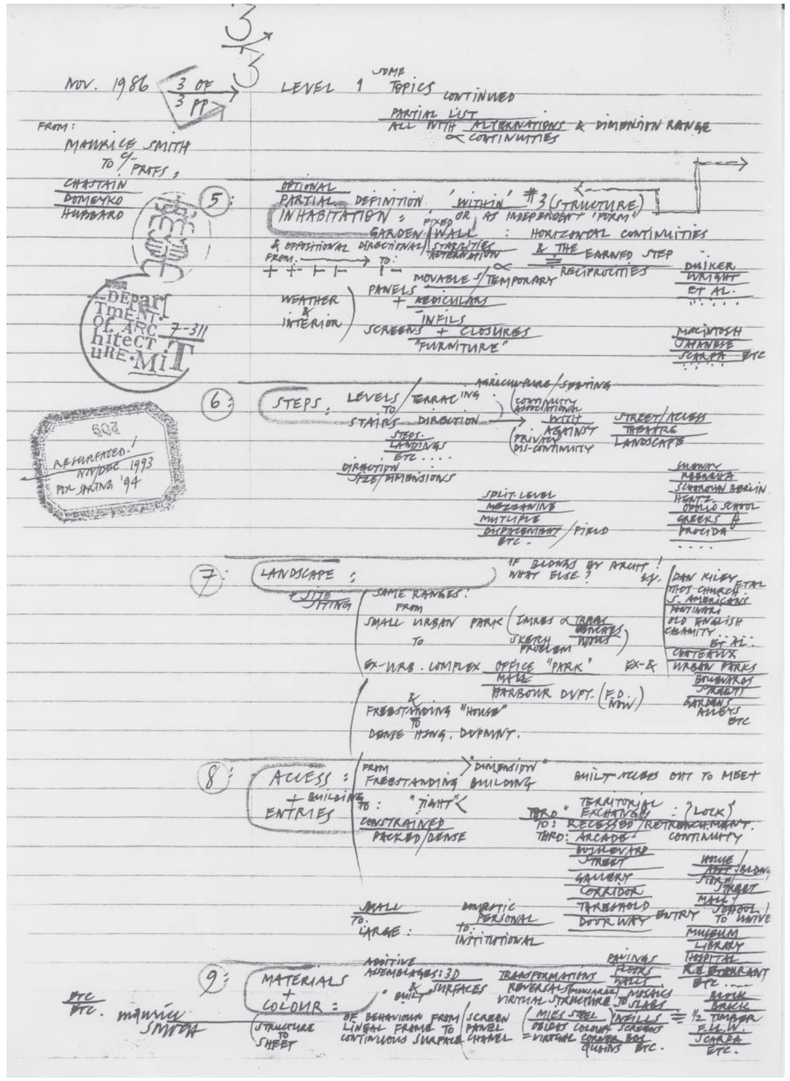
2. "use U" direction / disposition/permutations: in-re access direction.
& alternations/reversals
(viz: the 8 or 10 or 12 of doubled/redoubled above/below)

3. Structure & materials/methods: alternations
minimal frame/barrier / max. continuity movement
"Open" pavilion to "closed" max. barrier / dense/3D truss postpones privacy/containment
Lineal network: to tricycle / self-stable local
Through vane & reinforced (formally) floor
To load-bearing walls to channels (intrinsic partial containment/privacy)
To folded wall (all with floors (1 to 3 or 4), long span in space
+ other technologies, e.g. solar/acoustic/etc. form+materials, mechanical systems
(All with floors at 1,2,3 use-heights)
Horizontal transfer of load = use/beam through material: 45° rule/corbel
Historical reversal/transformation from one-to-one closed external corners / cellular containments to
Material post/beam + cantilever where openings were / open external corners
= no material at center of gravity / (multiple) doublings

4. Light {natural/artificial}: maximal continuous access / 3D screen to
Continuous outside corner "balcony" to
Bay window to
Minimal discontinuous / relatively isolated in various surfaces
& alternations
(light as) virtual structure (esp. since Wright's Falling Water etc.).
Light (+espace) at "center of gravity" (esp. Scarpa)

Arcade
Balcony
Access/sky gallery
Glazed balcony (Galicia, w. India-Jaisalmer, Amsterdam)
to . . .protect interior
to cottage

alabaster - Orvieto
stained glass – Gothic St. Chapelle
victorian – sash / pieces
modern 20th c. – drn/sheet



some topics, continued
partial list, all with multiple alternations/continuities & dimension range

5. Optional/partial definition
INHABITATION
"within" #3 (structure) / or as independent "form"

Garden wall : horizontal continuities
& oppositional directional fixed stabilities / alternation & the earned step / reciprocities
Duiker, Wright, et. al.
From + [cross] to partial cross to tee to open tee
Weather & interior panels: movable/temporary + aediculars / infills / screens + closures / "furniture"
Macintosh, Japanese, Scarpa, etc.

6. Steps: Levels/terracing agricultural/seating to
Stairs: direction (continuity, association with/against street/access / theater / landscape
privacy, dis-continuity
steps/landings/etc.
direction / size/dimensions
split-level / mezzanine / multiple / displacement /etc. / field
subway / Machu Pichu / Scharoun Berlin / Hertzberger Apollo School / Greek [island towns] / Procida

7. Landscape:
If buildings by architects, what else? e.g., Dan Kiley et. Al., Thomas Church [California landscape architect 1902-78], S. Americans, Portinari, old English calamity . . . et. al.; chateaux, urban parks, boulevards, streets, gardens, alleys, etc.
+site/siting
Same ranges, from small urban park (Imre's many trees/benches/walls?) sketch problem
to exurban complex office "park" / mall / harbor development & ex-&
& freestanding "house" to dense housing development

8. Access + building **Entries**:
from freestanding > "dimension" building built access out to meet
to "tight" < constrained / packed/dense
through
territorial "exchange" : "(lock)"
to recessed / retrenchment through
arcade continuity
boulevard
street
gallery
corridor
threshold
doorway entry

small to large
domestic/personal to institutional

house / apartment building
store street / mall
school to university
museum/library/hospital/
restaurant
etc.

9. Materials + color: additive assemblages: 3D & "built" surfaces

transformations / reversals (Monsaraz)
virtual structure

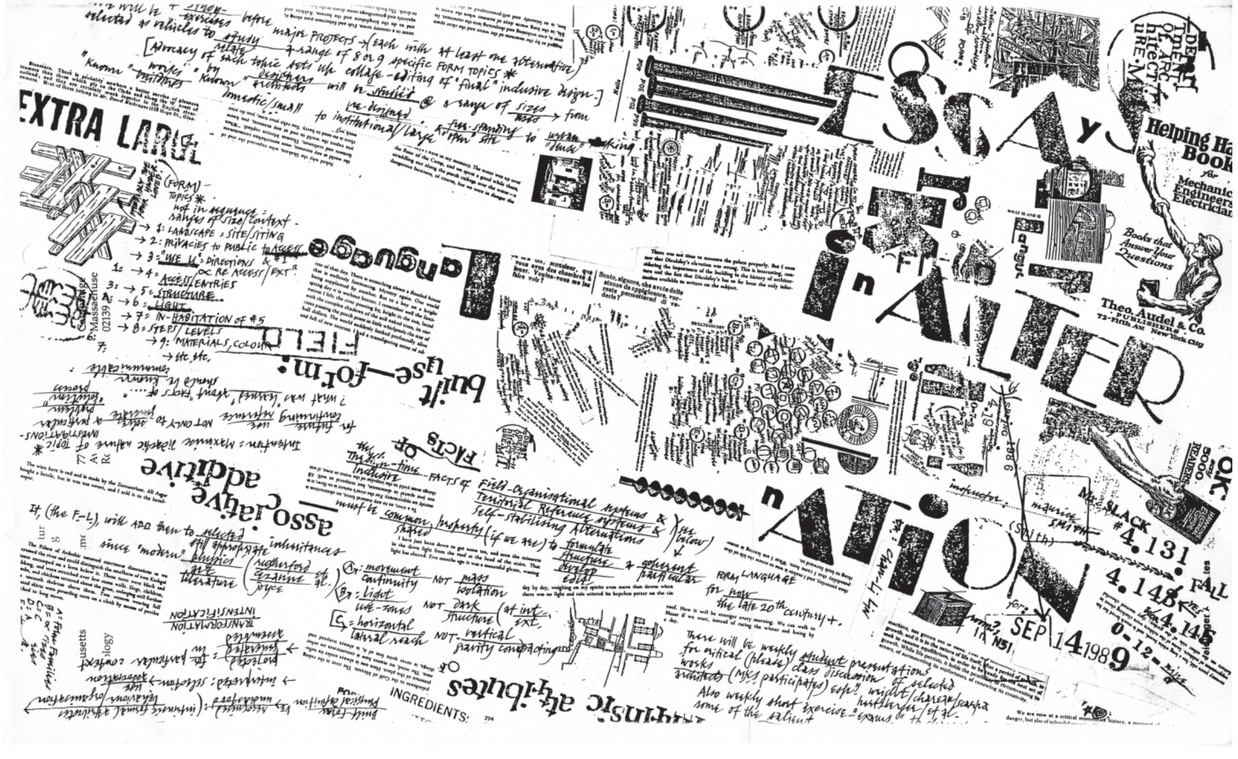
pavings
floors
walls
mosaics
to slabs
infills
screens

block/brick/half-timber
Wright, Scarpa, etc.

structure to sheet
of behavior from lineal frame to continuous surface (screen, panel, channel)

Mies steel
Obidos color = virtual corner boards /quoins etc.

Architectural Design Studio
Level 2
Fall 1989



There will be study / exercises before major projects (each with at least one alternative)
selected as vehicles to study / relate a range of 8 or 9 specific FORM TOPICS
(Advocacy of each topic sets up collage-editing of “final” inclusive design.)
“Known” works / buildings by “known” designers / architects will be studied / redesigned
at a range of sizes / uses from
domestic / small to institutional / large &
free-standing / “open” site to urban / “dense” packing.

the Through-time / inclusive
FACTS of
- field-organizational systems &
- territorial reference systems &
- self-stabilizing alternations

must be common property / shared
(if we are) to
formulate / structure / develop / edit
a coherent / particular
FORM LANGUAGE for
now / the late 20th century

It (the Form Language) will ADD then to selected / still appropriate inheritances
since “modern”
physics / art / literature
(Rutherford / Cézanne / Joyce et. al.)

A. movement / continuity NOT mass / isolation
B. light / use-zones NOT dark / structure (at int. / ext.)
C. horizontal / lateral reach NOT vertical / gravity compacting

Built-Form / Physical definition [must] be
recognized / understood: intrinsic formal attributes / behavior / organization
interpreted: selection → use / association
projected / generated / assembled: for/in particular context

TRANSFORMATION
INTENSIFICATION

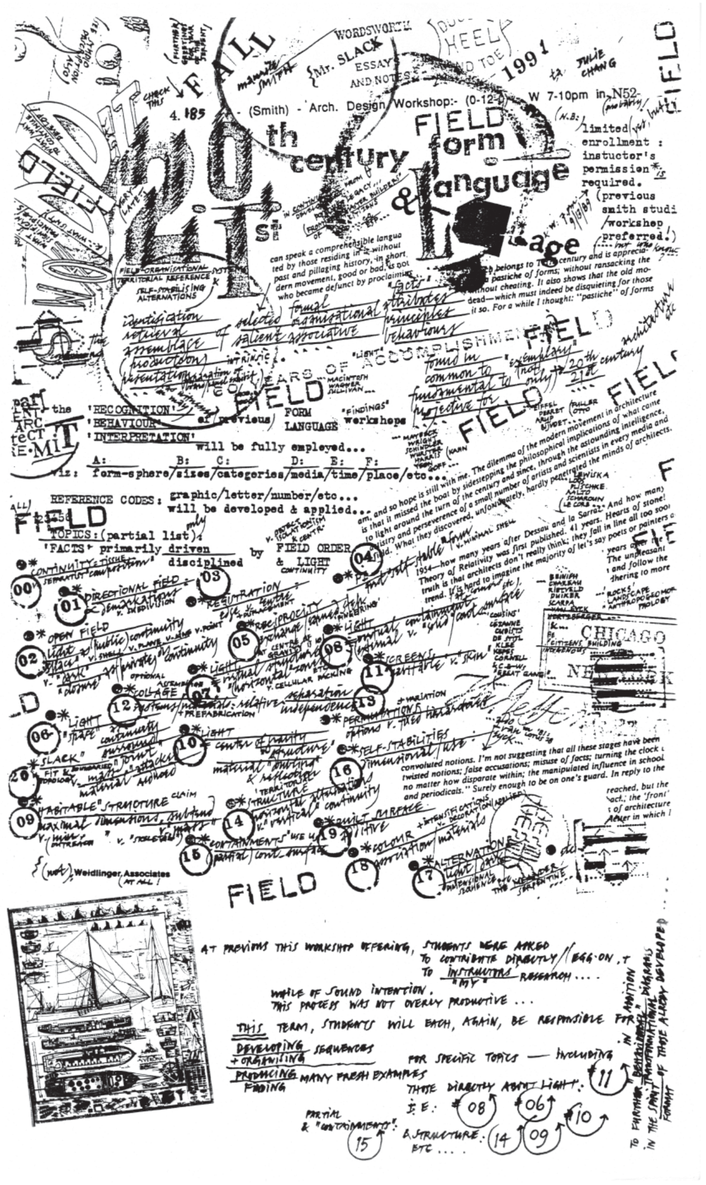
A. Form Families
B. Sizes
C. Categories
D. Media
E. Time / Place

Intention: Maximize didactic nature of topic investigations
for future / continuing use / reference NOT ONLY to solve / generate a particular problem / “ solution” / process
What was “learned” about “FACTS OF . . .” should be known / communicable

(Form)-topics not in sequence: ranges of size / context
1. landscape : site / siting
2. privacies to public to access & #1
3. “use U” : directions [use-U s are in many directions relative to access]
4. access / entries : re access / exterior
5. structure
6. light
7. in-habitation of #5
8. steps / levels
9. materials, color

Form Language Workshop
Fall 1991

Fall 1989



"[. . . a building can still be a good and useful building within THIS society; and that]it can speak a comprehensible language which belongs to THIS century and is appreciated by those residing in it without [being] a pastiche of forms; without ransacking the past and pillaging history, in short without cheating. It also shows that the old modern movement, good or bad, is not dead—which must be disquieting for those who became defunct by proclaiming it so. For a while I thought: "pastiche" of forms [is perhaps not meant pejoratively—notions change and what is anathema to me, others may cherish. But I overlooked the added epithet, captious . . . .]

[That was in] 1954-how many ears after Dessay and la Sarraz. And how many years after the Theory of Relativity was first published. 41 years. Hearts of stone! [The unpleasant] truth is that architects don't really think; they fall in line all too soon [and follow the] trend. It is hard to imagine the majority of let's say poets or painters [adhering to more or less the same trend all over the world and every review repeating the same limited opinion and printing exactly the same stuff.]

[An ideologist from head to foot—that's what I] am, and so hope is still with me. The dilemma of the modern movement in architecture is that it missed the boat by sidestepping the philosophical implications of what came to light around the turn of the century and since, through the astounding intelligence, artistry and perseverance of a small number of artists and scientists in every media and field. What they discovered, unfortunately, hardly penetrated the minds of architects."

Aldo van Eyck, *Lotus 28* (1981), pp 16-17

(late) 20th century / 21st century form language
Field & collage

What/why to continue/develop
What is significant princi;e/s / & what is not!

Field-organizational / territorial reference systems & self-stabilizing alternations

Identification/retrieval/assemblage/(production)/presentation
of
selected/salient/INTRINSIC
formal/organizational/associative
"facts"/attributes/principles/behaviors
found in / common to / fundamental to / projective for
"exemplary" (not only) 20th/21st century architecture

Macintosh, Wagner, Sullivan
Maybeck, Wright, Schindler, Wurster, Harris, Yeon, Goff, (Kahn
Eiffel, Perret, Arup, Bijvoet, (Fuller, Otto
Loos, Plischke, Aalto, Scharoun, (LeCorbusier
Chareau, Rietveld, Duiker, Scarpa, Van Eyck, Hertzberger, &c., "citizens'"/indigenous building
Cousins, Cezanne, Cubists, DeStijl, Klee, Kepes, Cornell, & C[arola]-G[iedion]-W[elcker]'s "Great Gang"

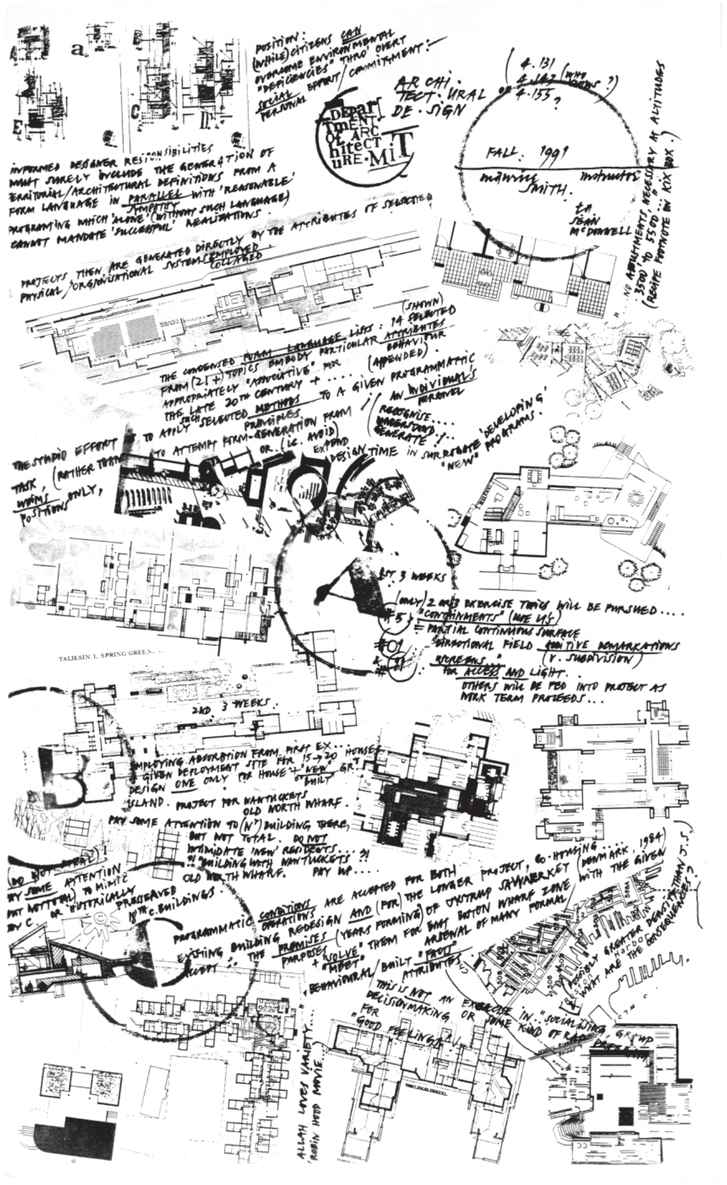
Recognition / Behavior / Interpretation of (previous) form language workshops / "findings" will be fully employed . . . viz.
- A: form-sphere
- B: sizes
- C: catagories
- D: media
- E: time
- F: place

Reference codes: graphic/letter/number etc. will be developed & applied

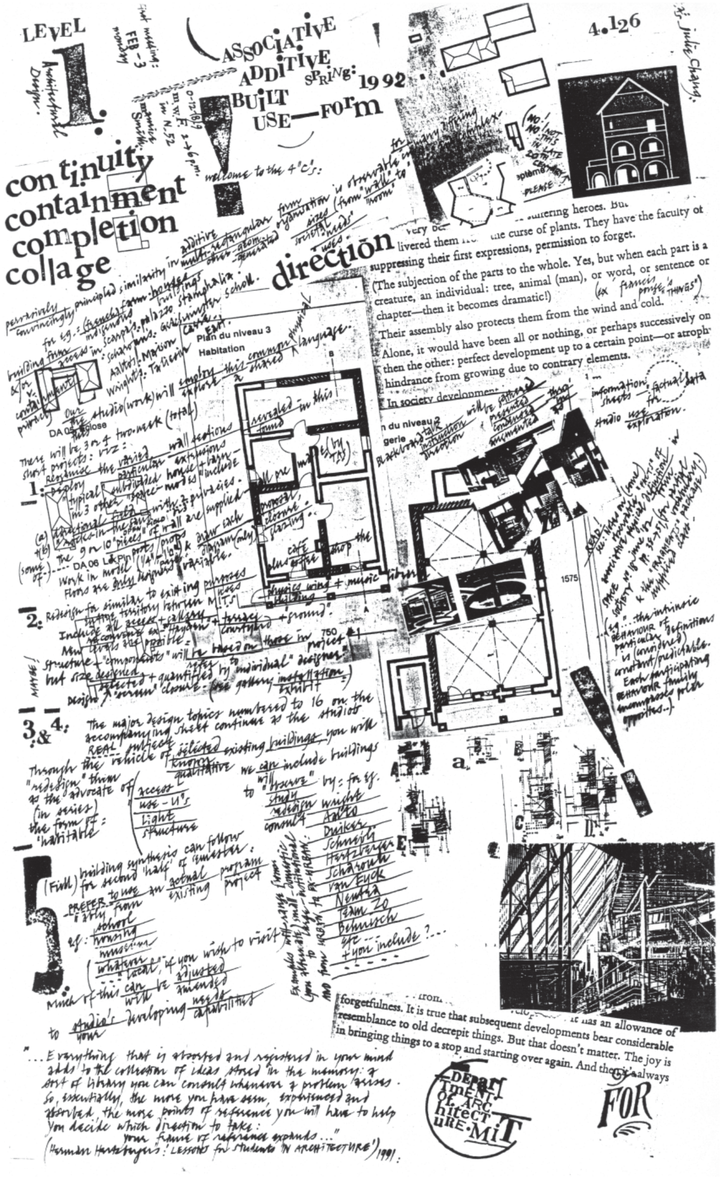
Topics/facts : (partial list only) primarily driven/disciplined by FIELD ORDER v. object isolationism & centrism & LIGHT continuity

1. Continuity=tissue vs. separatist "composition"
2. Directional field/demarcations vs. subdivision
3. open field / light/space as (public) continuity v. shell v. plane v. line v. point v. "dark"/"closure" as (private) dis-continuity
4. Registration/edge + displacement vs. center
5. Pi: first "self-stable" form v. minimal shell
6. Reciprocity / exchange/earned step / fingering
7. light/"space" as continuity/surround/"joint" v. mass/material "attacked"/reduced
8. light (at center of gravity) / = virtual structure/("horizontal" zones) etc. vs. cellular packing
9. light (at "corners" etc.) / = virtual containment (external v. "solid"/continuous surface
10. "habitable" structure claim / maximal dimensions, subtend/v. "mass" v. minimal dimensions; outreach v. "skeletal"
11. light / = center of gravity/"structure" / material "doub ling" & reflections
12. Screens / "habitable" vs. "skin"
13. Collage [optional assemblage] / systems/materials + prefabrication : relative separation/independence
14. Permutations + variation / options v. fixed hierarchies
15. territorial structure / horizontal alterations v. "vertical" continuity
16. Containments ["use U"] / (partial) continuous surface
17. Self-stabilities / dimensional/use
18. Alternation / light/dark / dimensional sequence etc. / the meander/serpentine
19. Color + intensifications v. decoration (applied) / association/materials
20. Built surface / additive
21. "Slack" / vs. fit & boundaried topology v. mass/material "attacked"/reduced

Architectural Design Studio
Level 2
Fall 1991



Architectural Design Studio
Level 1
Spring 1992



"Everything that is absorbed and registered in your mind adds to the collection of ideas stored in the memory: a sort of library you can consult whenever a problem arises. So, essentially, the more you have seen, experienced and absorbed, the more points of reference you will have to help you decide which direction to take: your frame of reference expands."
--Hertzberger, *Lessons for Students in Architecture*, p. 5 (foreword)

"It is true that subsequent developments bear considerable resemblance to old decrepit things. But that doesn't matter. The joy is in bringing things to a stop and starting over again."
--[?Francis Ponge, *Making of the "Pre"*]

Associative additive built use-form

Welcome to the 4 "C"s:
- continuity
- containment
- completion
- collage

Pervasively / convincingly principled similarity in
- additive
- multi-rectangular
- other geom[etrically] generated
- form / organization is observable for / in many differing sizes (from "wall" / "room" to "building complex"
- societal "needs"
- uses
- e.g., (French) farm houses / indigenous buildings

building form &/or access in
- Scarpa's Palazzo [sic] Fondazione Querini Stampalia
- Scharoun's Geschwister Scholl
- Aalto's Maison Carré
- Wright's Taliesin East

Our / the / this studio (work) will employ / explore this / a common / shared physical language.
There will be 3 or 4 two-week (total) short projects: viz:

1. Reorganize / deploy the varied / particular wall sections / extrustions revealed / found in this "typical" subdivided house + barn in 3 other "space-modes" include[ing]
   a. directional field +
   b. "rocks-in-the-sand: with 2 or 3 privacies.

   The 9 or 10 "pieces" of wall & posts/props are supplied--all pre-made. Work in model & draw each proposal; diagram only closure/glazing. Floors are only designer's variable.
2. Redesign for similar to existing purposes / uses entier territory between MIT's physics wing / building + music library. Include all access + gallery reconvene ex-"Hayden" + terrace / courtyard + "ground". New levels are possible.
   Structure + "components" will be based on / refer to those in project #1, but size designed / selected + quantified by individual "designer."
   Design "screen" closure (see gallery installation/exhibit)

3 & 4. The major design topics numbered to 16 on the accompanying sheet continue as the studio's REAL subject. . . . Through the vehicle of selected / known / qualitative existing buildings you will "redesign" them as the advocate of (in series) the form of "habitable
- access
- use-U's
- light
- structure
- field-orders

We can/will include buildings to "observe" / study / redesign / consult by, for example,
- Wright
- Aalto
- Duiker
- Schnebli
- Hertzberger
- Scharoun
- Van Eyck
- Neutra
- Team Zo
- Behnisch
- etc.

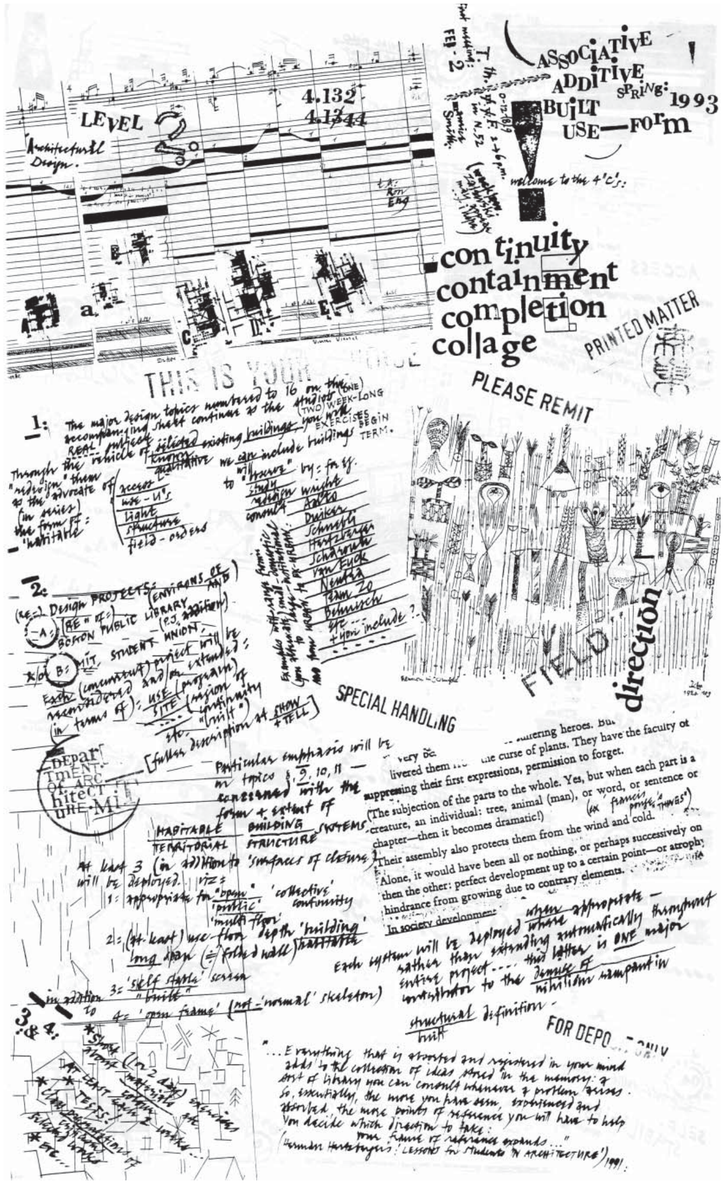
+ you include?
Examples will range from (you alternate)
- small - domestic to large - institutional, and from
- urban to ex-urban

(Field) building synthesis can follow for second "half" of semester.
Prefer/ably to use/from an actual/existing program/project
e.g., school, housing, museum, whatever . . . "local," if you wish to visit
Much of this can/will be adjusted/amended to studio's/your developing needs/capabilities.

The intrinisic behavior of particular definitions is (considered) constant / predictable. Each participating behavior family encompasses polar opposites . . . .

Architectural Design Studio
Level 2
Spring 1993

t.a. Ron Eng



"Everything that is absorbed and registered in your mind adds to the collection of ideas stored in the memory: a sort of library you can consult whenever a problem arises. So, essentially, the more you have seen, experienced and absorbed, the more points of reference you will have to help you decide which direction to take: your frame of reference expands."
--Hertzberger, *Lessons for Students in Architecture*, p. 5 (foreword)

"(The subjection of the parts to the whole. Yes, but when each part is a creature, an individual: tree, animal (man), or word, or sentence or chapter--then it becomes dramatic!)
Their assembly also pretects them from the wind and cold.
Alone, it would have been all or nothing, or perhaps successively one then the other: perfect development up to a certain point--or atrophy[] hindrance from growing due to contrary elements."
--Francis Ponge, *Things*.

Associative additive built use-form

Welcome to the 4 "C"s:
- continuity
- containment
- completion
- collage

1. The major design topics numbered to 16 on the accompanying sheet continue as the studio's REAL subject. . . . Through the vehicle of selected / known / qualitative existing buildings you will "redesign" them as the advocate of (in series) the form of "habitable
  - access
  - use-U's
  - light
  - structure
  - field-orders

We can/will include buildings to "observe" / study / redesign / consult by, for example,
- Wright
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- Neutra
- Team Zo
- Behnisch
- etc.

+ you include?
Examples will range from (you alternate)
small - domestic to large - institutional, and from
urban to ex-urban

2. (Re-)Design projects:
  A. Redesign of (environs of and) Boston Public Library Philip Johnson addition &/or
  B. MIT Student Union

  Each (concurrent) project will be reconsidered and/or extended (in terms of):
  use (program)
  site (region of continuity "built")
  etc.
  Particular emphasis will be on topics 8, 9 , 10, 11, concerned with the form + extent of
  habitable / territorial building / structure systems.

At least 3 (in addition to "surfaces of closure") will be deployed. Viz:
1. appropriate for "open" / "public" / "multi-floor" "collective" continuity
2. (at least) use-floor depth "building"/habitable long span (folded wall)
3. "self-stable" / "built" screen

in addition to
4. "open frame" (not-"normal" skeleton)

Each system will be deployed when/where appropriate rather than extending automatically throughout entire project . . . . this latter is ONE major contribution to the
demise of / nihilism rampant in
structural / built definition.

additional text for
Studio Level 2 Spring 1995

The Form of
- Habitability
- Habitation

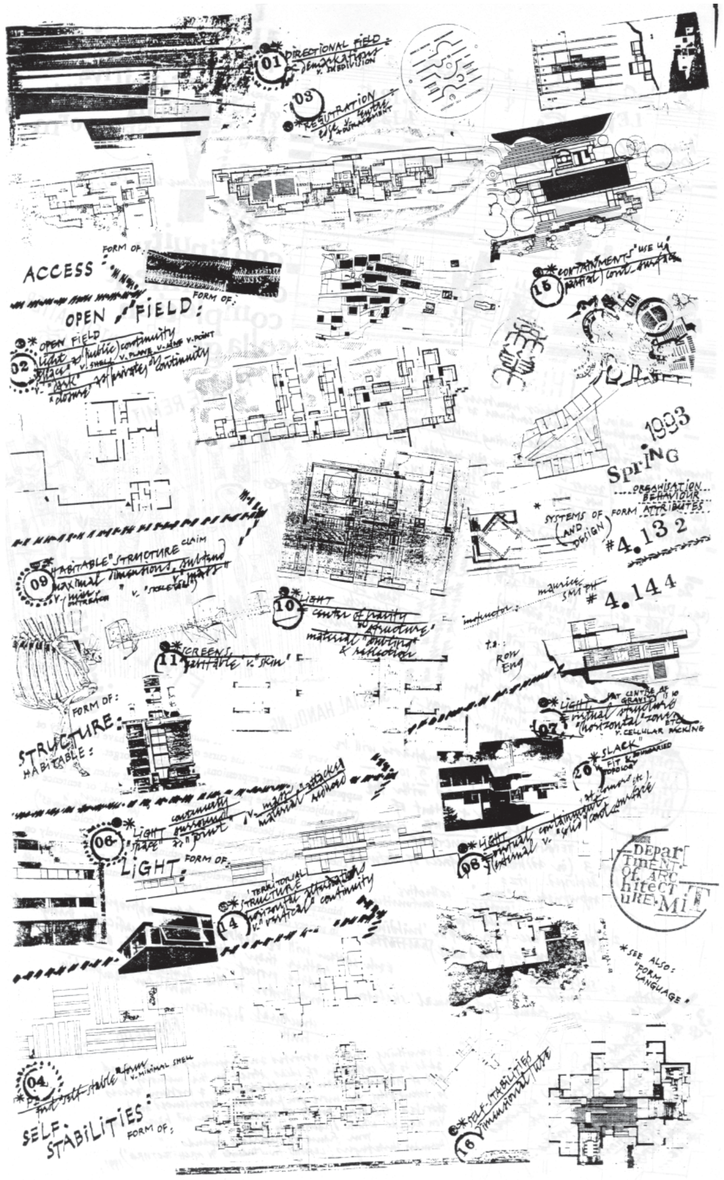
[addtl. comments on the 4 Cs]
- continuity: esp. "common" / "public" access
- containment: esp. "privacies" at various sizes
- completion &/or "changes" or modifications
- collage of (physical) systems as well as "uses" / "program"

[addtl. architects:]
- Schindler
- John Yeon
- Giancarlo de Carlo
- [Hiroshi] Hara
- Otto Steidle with
- Ralph & Doris Thut
- Carmen & Ellen Corneil
- Hassan Fathy
- John Habraken
- Juha Leiviska

Each for specific system
- Santiago de Compostella
- Monsaraz
- Jaisalmer
- Malta
- Procida
- Obidos

Studio method:
- A. Redesign - design "existing" known projects of 3 very different sizes, densities, etc., i.e./viz.
  block size "building"; extensive complex; and separate / free-standing "house".
- B. As advocate of "access," then building system
  -- before generating [a] proposition for McDonald's block in Central Square.
  Housing for students and citizen others + food facilities etc.

In addition to local, site-specific information + context,
How can selective, positive, qualitative, habitable attributes of (positive) environments elsewhere be relevant & apply to proposals/principles [of] design for say, Central Square; i.e., what is generic?



Systems (and design) of form
organization
behavior
attributes

form of ACCESS, form of OPEN FIELD:

01. Directional field:
demarcations v. subdivision
03. Registration
edge + displacement v. center
02. Open field
light/"space" as (public) continuity v. shell v. plane v. line v. point
v. "dark" / "closure" as private dis-continuity
15. Containments, "use U"
(partial) continuous surfaces

form of LIGHT:

06. [form of] Light / "space" as
continuity / surround / "joint" v. mass / material "attacked" / reduced
07. Light at center of gravity is =
virtual structure
"(horizontal" zone etc. v. cellular packing
08. Light at corners etc. is not ≠
virtual containment
(external v. "solid" / continuous surface
14. Territorial structure
horizontal alternations v. "vertical" continuity
20. "Slack" v. fit & boundaried topology

form of STRUCTURE: habitable

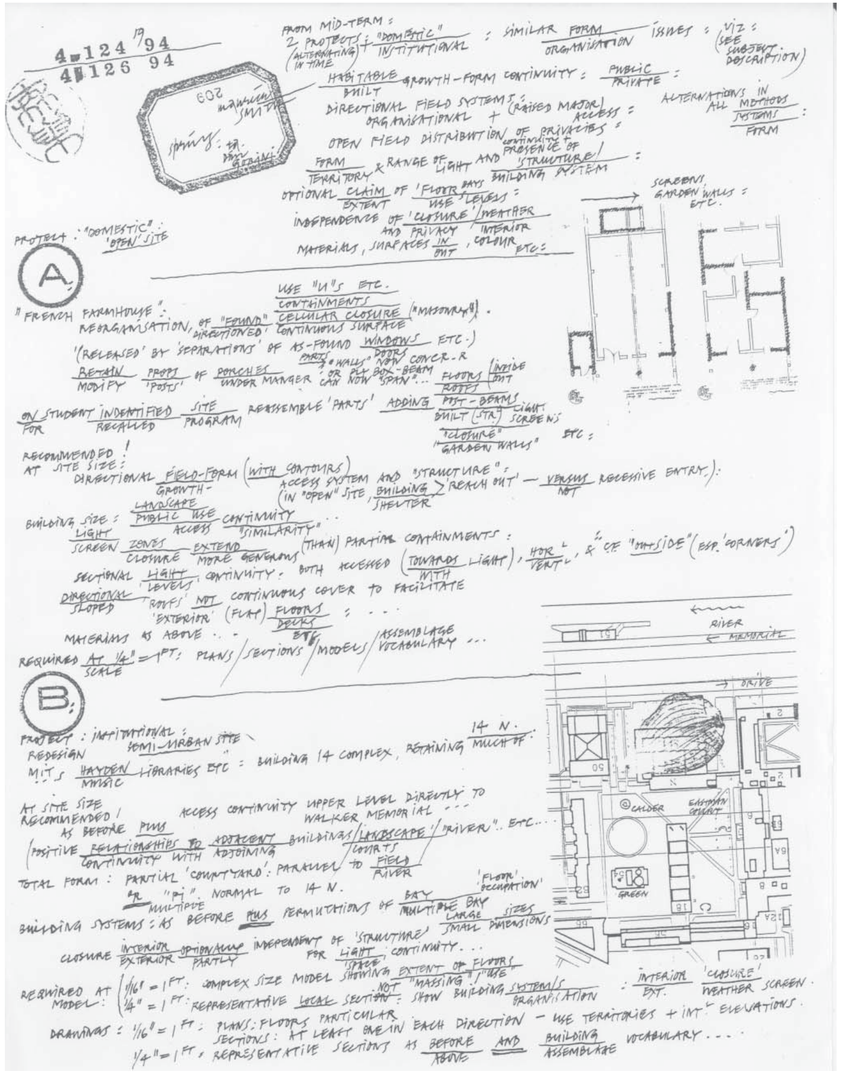
09. "Habitable" structure claim
maximal dimensions, subtend v. "mass"
v. min. outreach v. "skeletal"
10. Light =
center of gravity / "structure"
material "doubling" and reflection
11. Screens
"habitable" v. "skin"

form of SELF-STABILITIES:

04. Pi: first "self-stable" form v. minimal shell
16. Self-stabilities: dimensional / use

Architectural Design Studio
Level 1
Spring 1994

with T.A. Dan Gorini



From mid-term:
2 projects (alternating in time) + “domestic” / institutional : similar form / organization issues : viz: (see subject description)

Habitable / built growth-form continuity : public/private:
Directional field systems: organizational + (raised major) access: alternations in all methods/systems;form
Open field distribution of continuity + privacies:
Form/territory & range of light and presence of structure / building system:
Optional claim/extent of floor bays / use levels
Independence of closure / weather screens / garden walls / etc.
privacy / interior
Materials, survaces, in/out, color, etc.

A.
Project: “Domestic” open site
“French Farmhouse”
Reorganization of “found”/directioned use-“U”s etc./containments/cellular closure (masonry)/continuous surface
(released by separations of as-found windows/doors/etc.)
Retain/modify props/posts of porches/under manger parts > walls now concrete or plywood box beam can now span
On/for student identified/recalled site/program reassemble “parts” adding
Floors/roofs/post-beams/built (str.) light screens / closure/garden walls/etc.
Inside/out

Recommended! At

Site size:
Directional field-/growth- form (with contours) access system and “structure”
(in “open” site, building/shelter > reach out – versus/not recessive entry)

Building size:
Landscape / public use / access continuity / similarity
Light/screen zone/closure extend/more generous (than) partial containments
Sectional light/levels continuity; both accessed (towards/with light) horizontal/ vertical & cf. “outside” (esp. corners)
Directional/sloped roofs not continyous cover to facilitate
exterior (flat) floors/decks/etc.

required at ¼” scale: plans/sections/models/assemblage vocabulary

B.
Project: institutional semi-urban site
Redesign MITs Hayden/Music Libraries etc.: Building 14 complex, retaining 14N / much of

At site size, recommended as before plus access continuity upper level directly to Walker Memorial
(Positive relationships to / continuity with adjacent/adjoining buildings / landscape/courts /river etc.
Total form: partial courtyard: parallel to field/river
Or
“pi” multiple normal to 14N

Building systems as before plus permutations of bay / multiple bay “floor” / “occupation”
Closure interior/exterior optionally/partly independent of structure for light/space continuity

Required model at 1/16”=1 ft. complex size model showing extent of floors / not “massing”/”use”
¼”=1 ft. representative local section: show building systems/organization int./ext. closure/weather screen
Drawings 1/16”=1 ft. plans; floors particular
Sections: at least one in each direction – use territories + int. elevations
¼” = 1 ft. representative sections as before/above and building/assemblage vocabulary

Form Language Workshop
Spring 1994

Association, Selection, Transformation,
Generation, Assemblage of
FACTS OF FORM

In the house of words was a table of colors. They offered themselves in great fountains and each poet took the color he needed: lemon yellow or sun yellow, ocean blue or smoke blue, crimson red, blood red, wine red . . . . --Eduardo Galeano, *The Book of Embraces*

. . . attempted will serve as instance, without prejudging all the qualities on which I count although the contemplation and naming of extremely different objects will make me really become aware and find joy afterwards. --Francis Ponge

The real secret of the contemplator's success is in his refusal to consider as an evil the encroachment on his personality by things. To avoid this turning into mysticism, one must: 1st, realize precisely, that is to say expressly, each thing that is made the object of one's contemplation; and, often enough change any object of contemplation, and in short keep a certain measure. But most important for the well-being of the contemplator is the naming, as he goes along, of all the qualities he discovers; these qualities that TRANSPORT him must not transport him beyond their exact commensurate expression.--Francis Ponge, *Things*

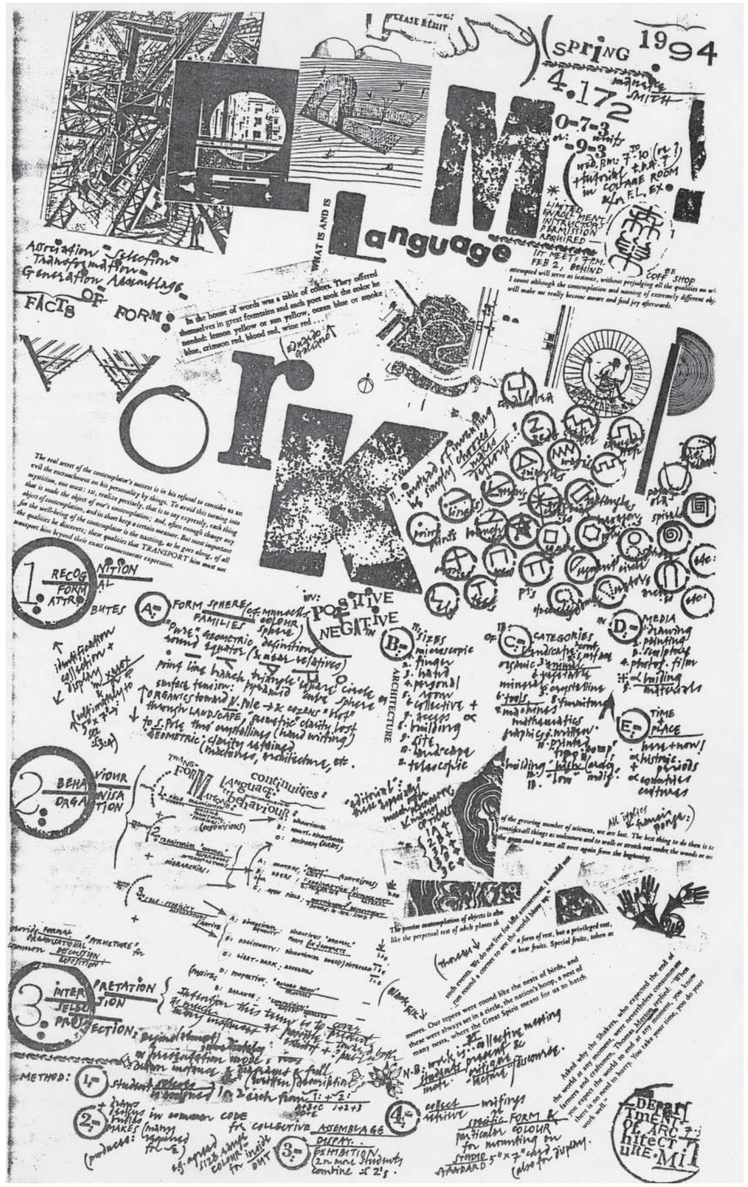
The precise contemplation of objects is also a form of rest, but a privileged rest, like the perpetual rest of adult plants that bear fruits.-- Francis Ponge

. . . of the growing number of sciences, we are lost. The best thing to do then is to consider all things as unknown and to walk or stretch out under the woods or on the grass and to start all over again from the beginning.-- Francis Ponge

We do not live for idle amusement. I would not run round a corner to see the world blow up.--Thoreau

Our tepees were round like the nests of birds, and these were always set in a circle, the nation's hoop, a nest of many nests, where the Great Spirit meant for us to hatch--Black Elk

Asked why the Shakers, who expected the end of the world at any moment, were nevertheless consummate farmers and craftsmen, Thomas Merton replied: "When you expect the world to end at any moment, you know there is no need to hurry. You take your time, you do your work well."[--Sven Birkerts, "Looking the Technological Gift Horse in the Mouth," in *Wendell Berry: Life and Work*, ed. by Jason Peters, pp. 239-240.]



1. Recognition of Formal Attributes

A. Form sphere / families (cf. Munsell's color sphere):
Around the **equator**, "pure" geometric definitions (& near relatives): point, line, branch, triangle/pyramid, "square"/cube, circle/sphere
Surface tension ORGANICS toward **N. Pole** à & [Alexander] Cozens [English painter, 1752-97] "blot"
through LANDSCAPE, "geometric" clarity lost (hand writing), thro' crystallines
to **S. Pole**, GEOMETRIC clarity retained (machines, architecture, etc.)
"Form-sphere": morphologic groups recognize some 30 "pure" (diagrammatic) morphologic/geometric definition-groups located around the "equator" in generative transformation.

". . . instead of inventing he simply chooses/makes/deploys . . ."

1. point(s)
2. line
3. branch
4. arrow
5. triangle/pyramid
6. square/cube
7. circle/sphere
8. peaked wave
9. squared wave
10. step
11. earned step
12. candelabra
13. rectangle
14. hexagon/polygon
15. cross
16. two arrows [asterisk?]
17. star [overlapping double arrow]
18. U [j]
19. L
20. T
21. hat [inverted U]
22. pi
23. Z
24. half-circle [dome]
25. [circle] sector
26. [circle] segment/chord/arc
27. arch
28. spiral
29. parabola
30. anti-clastic

in POSITIVE + NEGATIVE in

B. Sizes (11):
1. microscopic
2. finger
3. hand
4. personal
5. room
6. collective
7. access
8. building
9. site
10. landscape
11. telescopic

C. Categories (13):
Natural form
1. Landscape
2. Continuous surface
Organic forms:
3. Animal
4. Vegetable
Mineral forms:
5. Crystalline forms
Man-made form
Non-habitable / objects
6. Tools
7. Machines
8. Furniture
Mathematics, graphics
9. Written
10. Printed
11. Typographic
Building
12. "High" ["professional"] architecture
13. "Low" ["vernacular"] architecture

D. Media:
drawing
1. painting
2. sculpture
3. photography & film
4. + (many) building materials

E: Time + Place
1. here & now!
2. historic periods + many
3. countries
4. cultures

2. Behavior / Organization
1. Field organization: three variable territorial "packings" (subdivisions):
   A. Directional
   B. Multi-directional [including orthogonal grids]
   C. Uniform (including uniform grids)
2. Territorial control: three references, intensifications + hierarchies:
   A. Centers: points + lines (centrisms)
   B. Edges:
      1. registration
      2. mirroring
      3. lateral displacement
   C. Open field: deployed containments ("rocks in the sand")
3. Alternations / self-stability: five methods:
   Active:
   A. dimensional equality: directions normal, form (in)complete
   B. reciprocity: directional edge(s) displaced
   C. light-dark: reversals
   Passive:
   D. proportion: fractals, Golden Mean
   E. balance: "composition," resolved "weight"

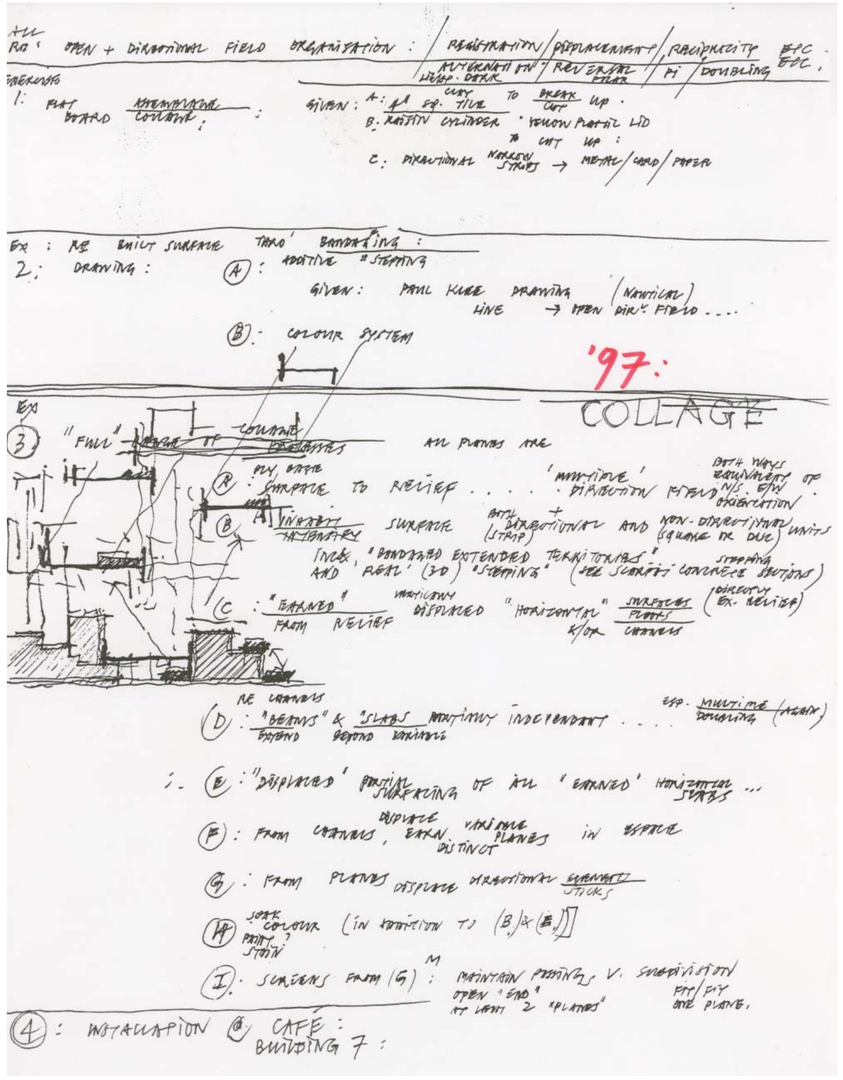
The most habitable / associative (built) environments in **2**: Behavior/ Organization include / exemplify 1A [directional], 2B + 2C [edges, open field], 3A, 3B, 3C [active alternations].

3. Interpretation / Selection / Projection:
Intention this term is to cover/present as much/many instances as possible toward both exhibit + publication.
Begin (almost) immediately in presentation mode:
A. drawn instance
B. & diagrams
C. & full (written) description

N.B. work is at collective meeting
Students / instructor present & critique / "lecture"/discourse

Method:
1. Student selects / is assigned 1 or 2 each from [sections] 1: + 2: / A+B+C+D+E 1+2+3
2. draws / designs / builds / MAKES (produces: (many required for section 2) in common CODE
e.g., agreed size, range, color for inside/out
for
3. collective assemblage/display/exhibition (2 or more students combine section 2's
4. collect/retrieve writings re: specific/particular form & color for mounting on studio standard 5"x7" cards (also for display)

Small Built Collage
1997



Open + directional field organization: /registration /displacement / reciprocity etc.
Alternation light-dark / reversal polar / pi / doubling etc.

Exercise 1:

Flat board assemblage / collage? Given: A: 4" sq. clay tile to break/cut up
B: raisin cylinder yellow plastic lid to cut up
C: directional narrow strips metal/card/paper

Exercise 2:

Re: Built Surface
Drawing through
A: bandaging / additive stepping
Given: Paul Klee drawing (nautical)
Line → open directional field
B: color system

Exercise 3:
"full" range of collage / processes all planes are
A: ply base
surface to relief . . . "multiple" direction field; both ways equivalent of n/s e/w orientation
B: inhabit / intensify surface both directional (strip) and non-directional (square or disc) units
including "bandaged extended territories" . . . and "real" (3D) "stepping" (see Scarpa's concrete stepping sections)
C: "earned" / from relief vertically displaced "horizontal" /&or surfaces/floors/channels (directly ex. Relief)
D: re channels
"beams" & "slabs" extend beyond variable
? independent esp. multiple/doubling (?)
E: "displaced" partial surfacing of all "earned" horizontal slabs . . .
F: from channels displace earn variable distinct planes in espace
G: from planes displace directional elements / sticks
H: soak color paint stain in ?tion B and E
I: screens from G maintain passing v. subdivision
open "end" at least 2 "planes" fiy/fiy one plane

Exercise 4: Installation at café Building 7