

INTRODUCTION TO GEOMETRY

All architecture depends, in the end, on geometry: that is, on the arrangement of material in space. The order, beauty, significance, and feeling of what is accomplished, therefore depends entirely on the degree to which we understand the problem of ordering material in space.

Yet, surprisingly, this topic is not touched systematically by any current teaching about buildings. We do learn many useful things that are taught systematically: engineering, site planning, heating, energy, transportation, landscape, lighting design and so on. But the actual physical fabric of the building - its geometrical substance, which is where it all begins, and all ends, has dropped out of sight as a subject in its own right, and is no longer a normal part of our curriculum.

In this course, we are trying to mend that gap. We shall lay the foundation for a view of geometry and structure, which will profoundly alter a person's understanding of buildings - and may greatly alter his conception of his own design work. In particular, we hope that it will allow a person to reach a more intimate connection between himself and his own design work - in which works of greater feeling can be created.

The view of geometry which is presented here is deep, and difficult to understand. It is, in effect, the material which lies behind, or underneath, the material presented in the Timeless Way of Building and a Pattern Language.

To present it, we shall try to teach it by means of progressive steps, one week at a time, with the hope that by starting with rather elementary points, we may gradually reach the full depth of the subject matter by the ninth and tenth weeks. We shall therefore consider the course as a sequence of ten topics, each week dealing with a new topic, that emerges from, and develops, the topics discussed in previous weeks. An outline of these ten topics is presented below.

CALENDAR OF TOPICS

Week 1.	ORDER	<i>site plan</i>
Week 2.	MIRROR OF THE SELF	<i>form</i>
Week 3.	FIFTEEN PROPERTIES	<i>group of rooms</i>
Week 4.	CENTERS <i>Function</i>	interior of room <i>kitchen/workshop</i>
Week 5.	CENTERS & FUNCTION <i>Centers</i>	<i>central system</i>
Week 6.	THE CENTERING PROCESS	<i>height in hand</i>

Week 7. THE "BEING" NATURE

primary bly.

Week 8. COLOR AND INNER LIGHT

color you know

Week 9. STRUCTURE ENHANCING TRANSFORMATIONS

new structure this

Week 10. NOT SEPARATENESS

skin steps

These ten theoretical topics will be accompanied by ten separate design problems, each lasting one week. These problems, though short, will not be considered as sketch problems, but will be considered very seriously as finished pieces of work, and the student will be required to submit the results of his work, each week, on a single 20 x 30 board so that the ten boards form a coherent set for each student. The grade will be based entirely on the results of these ten design problems.

In order to produce the most successful interweaving of theory and design, the class will have a cyclical format, repeated week after week, which goes like this:

1. Wednesday afternoon: Presentation of new theoretical material, lecture and discussion.
2. Thursday afternoon: Individual studio work, with help of instructors.
3. Monday night: The week's work is handed in, followed immediately by a class review in which all boards are discussed, to provide further illumination of the week's main topic, and closure.

First class: Wednesday January 7, 2pm, Wurster 9th floor.

MARTINEZ COLORS

Reputation
mosque
church
Alhambra
barracks

Stays on campus
with reputation

Ben Haddou
Jesper

gratification
under Amiens

1 order

2 mirror
(chessman)

3 properties

4 centers

5 center/function

6 center process

7 structure - entry landscape

8 being nature

9 inner light

10 hot-separateness

revised site plan of main bldg

fence (for a specific place)

cluster of rooms



A concrete step: thinking of one room

new site plan
window detail for construction system

A neighborhood

site plan of new bldg

the principal building

colors of entrance interior

interior of one room
outdoor
one concrete step
(in a real situation)

A unknown interior

revised site plan of main building

A concrete step

A fence

Window detail for new office building

Site plan for new building

A neighborhood

colors of entrance interior

cluster of houses
color, materials, shape
30x40 1200 sq ft

construction system

the principal bldg

