48-747 Shape Grammars

Introductory Lecture

LIFE AS A GRAMMARIST or
A CONSTRUCTIVE INQUIRY INTO SHAPES
in this course we look at

Constructive Aspects

Generative Process/System

Algorithmic/Computational Systems
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Some **key ideas** that we will touch upon in the context of grammars.
life as a grammarist
the study of form as a **central enterprise**

a study of form that presupposes a set of basic tools for **formal composition**

a study of form that depends on *formal elements and a system of rules* in the widest sense possible

being a **grammarist**
objects have **form**

space has **form**

technology has **form**

culture has **form**

communities, societies, environments, maps and mappings – worlds and entities, in general, all have **form**

a **grammarist** is **natural** to any world that we inhabit or interact in
the study of form — a single dominant idea

is a study of change

entities, ideas, designs, environments etc can be characterized - constructively - by a sequence of change — in particular, localised change
change
an understanding of change enables us to understand pattern, design, behavior, agency, simplicity, complexity, aesthetics, economy, ... beauty + nature
snowflakes and coastlines

expressions of change
change is expressed using self-similar forms

expressing change
radically different forms may be related by similar kinds of changes

more on change
computation and architecture/design are not alien to one another

change is computation
“the search for rigorous formulation in design has a much more serious motivation than mere concern for logical niceties or the desire to purify well-established methods for design analysis

precisely constructed models for design structure can play an important role, both negative and positive, in the process of discovery itself

by pushing a precise but inadequate formulation to an unacceptable conclusion, we can often expose the exact source of this inadequacy and, consequently, gain a deeper understanding of the design data”

inspiration – noam chomsky
go to some grammar examples