

ARK-E1021 Studio Spring

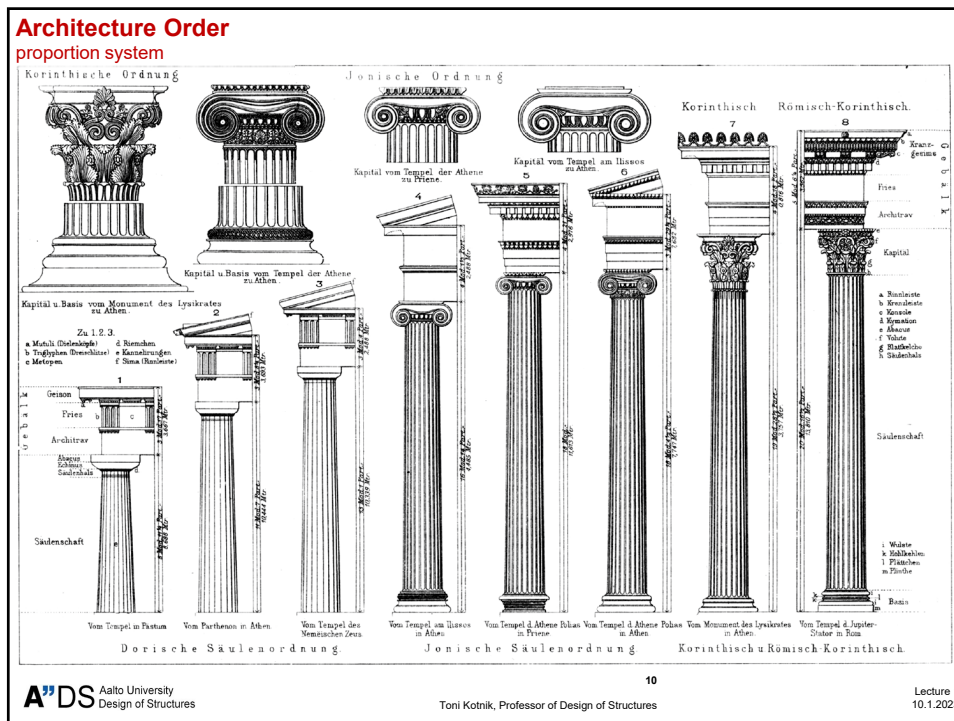
Design of Structures

Input 1: Order pre-digital

Toni Kotnik

Professor of Design of Structures
Department of Architecture
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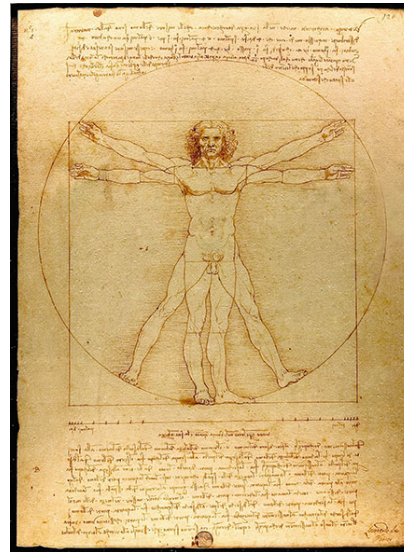
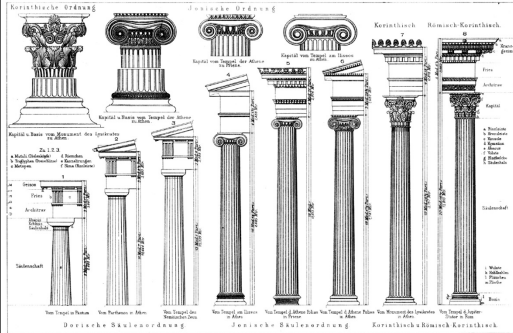
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1

Architecture Order
proportion system



Leonardo da Vinci: Vitruvian Man
Italy, around 1490

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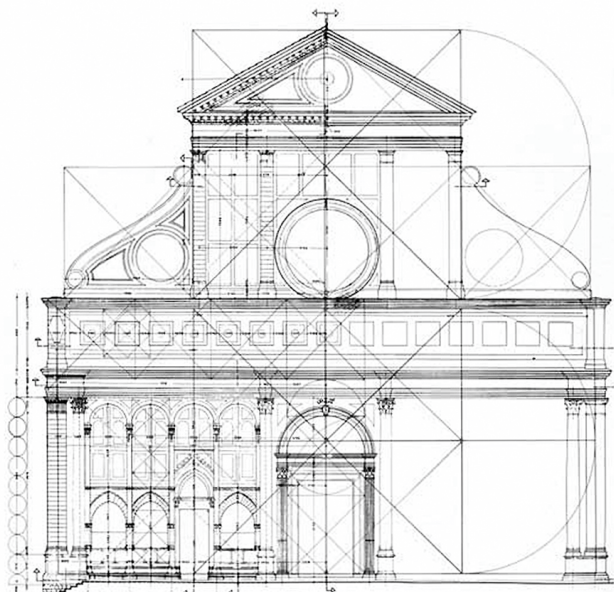
Architecture Order
proportion system as reflection of a transcendental order



Leon Battista Alberti: Santa Maria Novella
Florence, Italy, 1456-1470

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Architecture Order
proportion system as reflection of a transcendental order



Leon Battista Alberti: Santa Maria Novella
Florence; Italy, 1456-1470

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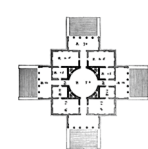
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Architecture Order
idealized geometry



Andrea Palladio: La Rotonda
Vicenza; Italy, 1567-71

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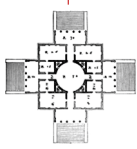
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Architecture Order

idealized geometry as order of the world









Andrea Palladio: La Rotonda
Vicenza, Italy, 1567-71

Le Corbusier: Platonic Solids and sketch of Rome

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Architecture Order

compositional geometry

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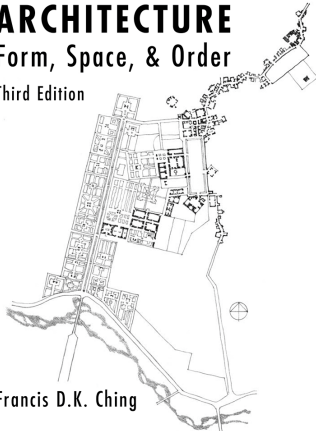
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ARCHITECTURE

Form, Space, & Order

Third Edition



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Architecture Order
compositional geometry

1. SAYNATSALO CIVIC CENTRE

2.

3.

4.

5.

Peter Eisenman: analysis of Alvar Aalto's Saynatsalo Civic Centre
The Formal Basis of Modern Architecture

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Flow of Space

Ludwig Mies van der Rohe
German Pavilion, Barcelona, Spain, 1929

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From Composition to Relationships



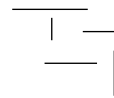
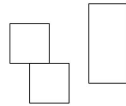
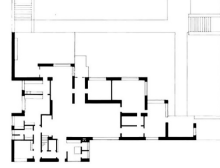
Ludwig Mies van der Rohe
Villa Eichstädt, Berlin, Germany, 1922



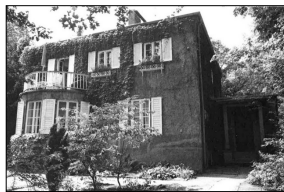
Ludwig Mies van der Rohe
Haus Lange, Krefeld, Germany, 1928



Ludwig Mies van der Rohe
German Pavilion, Barcelona, Spain, 1929



From Composition to Relationships



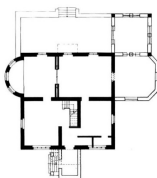
Ludwig Mies van der Rohe
Villa Eichstädt, Berlin, Germany, 1922



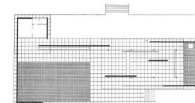
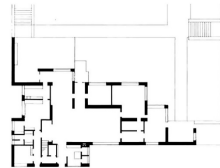
Ludwig Mies van der Rohe
Haus Lange, Krefeld, Germany, 1928



Ludwig Mies van der Rohe
German Pavilion, Barcelona, Spain, 1929



contained space
composition of volumes



transitional space
fluid field of relations

From Composition to Relationships

Ludwig Mies van der Rohe
Villa Eichstädt, Berlin, Germany, 1922

Ludwig Mies van der Rohe
German Pavilion, Barcelona, Spain, 1929

Ludwig Mies van der Rohe
Brick Country House, Project, 1923

contained space
composition of volumes

transitional space
fluid field of relations

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Spatial as Relationship

"Space is created as a relation between objects. These relations persist in perceptual experience ... There are many aspects of experience of which we are not explicitly conscious that nonetheless tinge our awareness in important ways. The visual relations between objects are of this kind."

Rudolf Arnheim

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Rudolf Arnheim: *The Dynamics of Architectural Form*, 1977

influence of the distance between buildings on the perception of the degree of mutual dependence respectively independence

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Gestalt Theory

A
similarity

B
proximity

C
good continuation

D
closure

E
symmetry

F
periodicity

psychology of perception
gestalt theory

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Gestalt Theory

Bauhaus

1.

1.

An active line on a walk, moving freely, without goal. A walk for a walk's sake. The mobility agent, is a point, shifting its position forward (Fig. 1):

Fig. 1

The same line, accompanied by complementary forms (Figs. 2 and 3):

Fig. 2

Fig. 3

The same line, circumscribing itself (Fig. 4):

Fig. 4

Two secondary lines, moving around an imaginary main line (Fig. 5):

Fig. 5

Paul Klee: *Pedagogical Sketchbook*, 1925

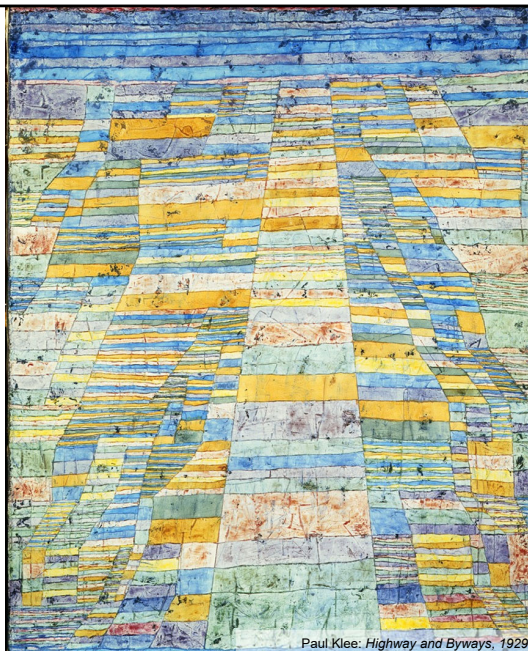
Kandinsky: *Point and line to plane*, 1926

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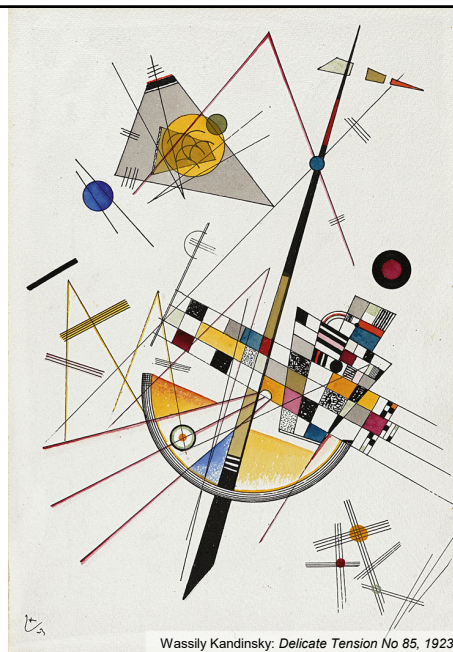
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Gestalt Theory
Bauhaus



Paul Klee: *Highway and Byways*, 1929

Gestalt Theory
Bauhaus



Wassily Kandinsky: *Delicate Tension No 85*, 1923

Visual Grammar

 55 Attraction/ Static	 56 Symmetry/ Asymmetry	 57 Balance	 58 Groups	 60 Fine/Coarse
 61 Diffusion	 62 Direction	 63 Position	 64/65 Space/ Weight	 66 Amount/ Dominance
 68 Neutral	 69 Background/ Foreground	 70/71 Coordination/ Distance	 72 Parallel	 73 Angle
 74 Negative/ Positive	 75 Transparent/ Opaque	 76 Tangent	 78/79 Overlapping/ Compound	 80/81 Subtraction/ Coincidence
 82/83 Penetration/ Extrusion	 84 Influence	 85 Modification	 86 Variation	

VISUAL GRAMMAR CONTENTS

Relations

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- 56 Symmetry/Asymmetry
- 57 Balance
- 58 Groups
- 60 Fine/Coarse
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Christian Leborg: *Visual Grammar*, 2006

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Visual Grammar

VISUAL GRAMMAR CONTENTS

Relations

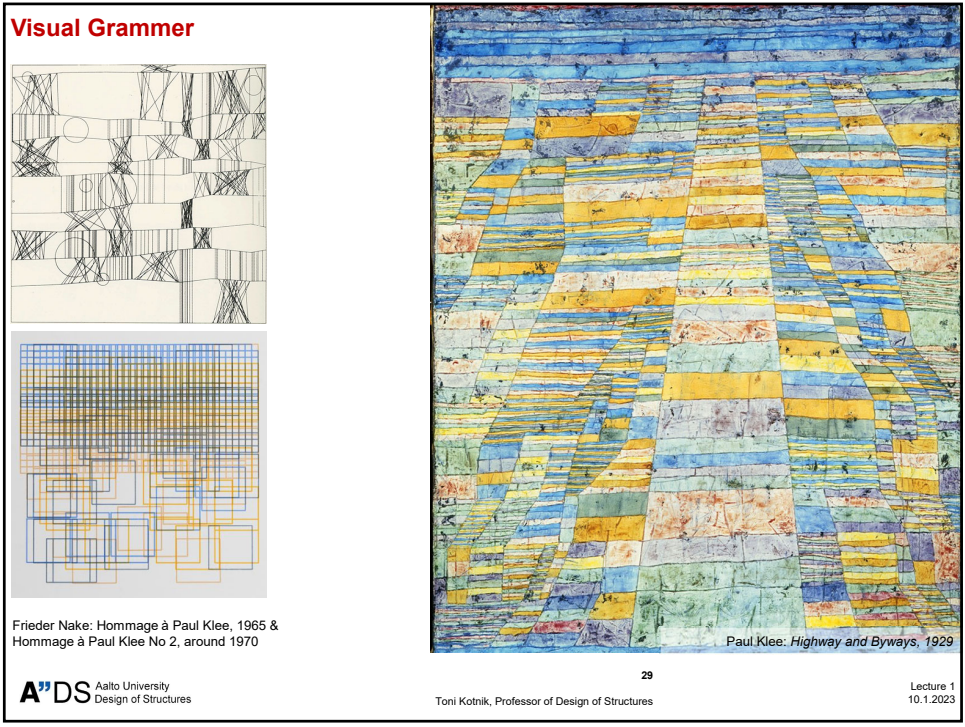
- 55 Attraction
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Christian Leborg: *Visual Grammar*, 2006

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Visual Grammar



The left side of the slide features two abstract line drawings. The top one consists of a dense network of black lines forming various geometric shapes and patterns. The bottom one is a grid of blue and orange lines, with some lines being thicker than others, creating a sense of depth and movement. The right side of the slide features a large, colorful abstract painting with a grid-like pattern of yellow, blue, and green squares, with some squares containing smaller, more detailed patterns.

Frieder Nake: *Hommage à Paul Klee*, 1965 & *Hommage à Paul Klee No 2*, around 1970

Paul Klee: *Highway and Byways*, 1929

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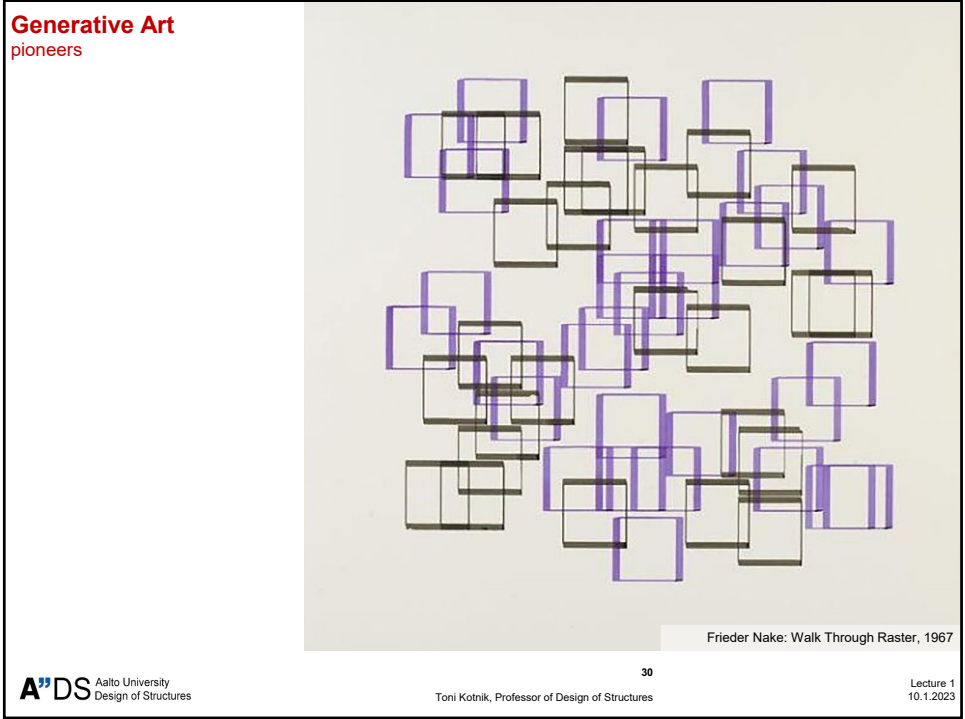
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Generative Art pioneers



The slide features a large abstract drawing consisting of numerous overlapping squares of various sizes and orientations. The squares are drawn with thin black lines, and some are filled with a light purple color. The overall effect is a complex, layered geometric pattern.

Frieder Nake: *Walk Through Raster*, 1967

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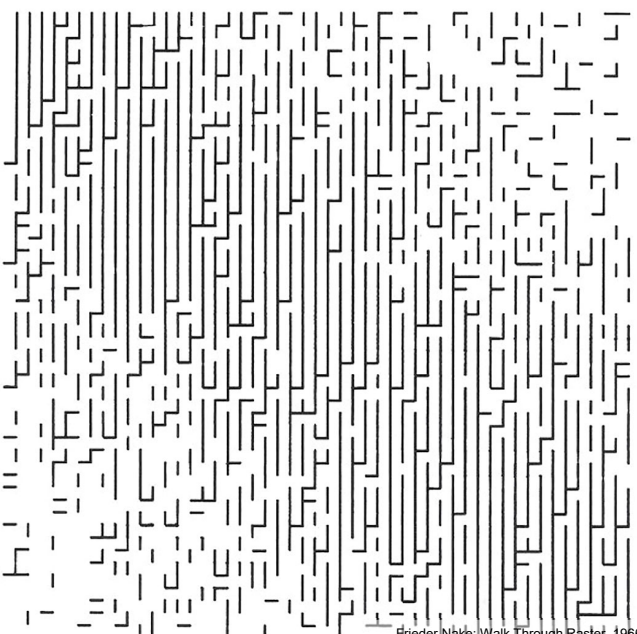
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Generative Art
pioneers



Frieder Nake: Walk Through Rasjel, 1966

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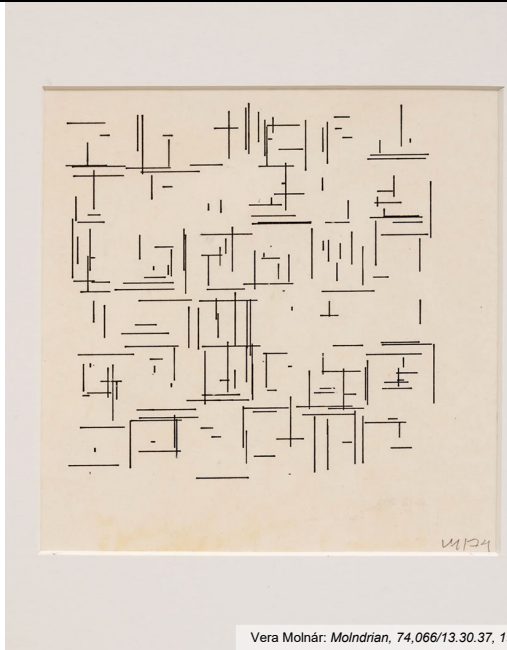
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Generative Art
pioneers



Vera Molnár: Molndrian, 74,066/13.30.37, 1974

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Generative Art
pioneers

