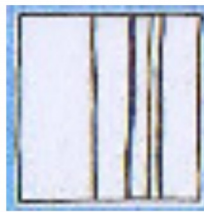
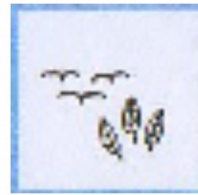


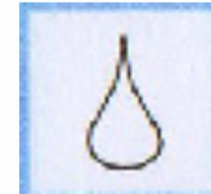
# Eigenschaften lebendiger Objekte



Größenstufen



Rauigkeit/  
Individualität



Besondere Form



Grenzen



Leere/Freiraum



Zweideutige  
Durchdringung



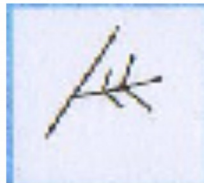
Positiver Zwischenraum



Ganzheitliche  
Verbundenheit



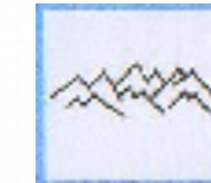
Gradienten



Lokale Symmetrie



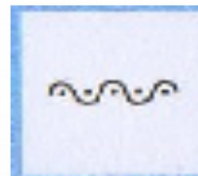
Starkes Zentrum



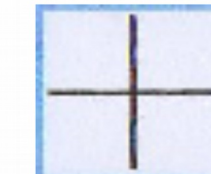
Ähnlichkeit/  
Echos



Kontrast



Rhythmische  
Wiederholung



Einfachheit/  
Innere Ruhe

# Eigenschaften lebendiger Strukturen

## Neuübersetzung

Leitner, 12.01.'12

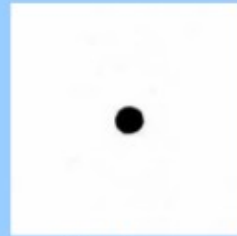
„Muster der  
Lebendigkeit“

## z.B. good shape

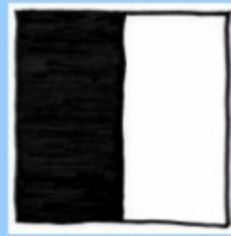
- besondere Form
- **adaptierte Form**
- **formschön (S.H.)**

## z.B. roughness

- Rauigkeit
- **Individualität  
ohne Perfektion**
- **Vagheit (S.H.)**



**starkes  
Zentrum**



**Kontrast  
Differenz**



**Adaptierte Form  
Anpassung**



**Echo  
Ähnlichkeit**



**Individualität  
ohne Perfektion**



**ausgeprägte  
Grenze**



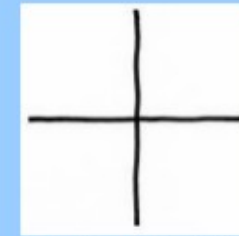
**Größenstufen  
Proportion**



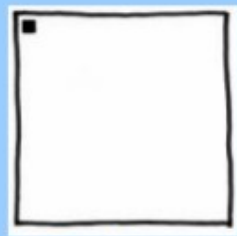
**lokale  
Symmetrie**



**alternierende  
Wiederholung**



**Einfachheit  
innere Ruhe**



**Die Leere  
Freiraum**



**Gradueller  
Übergang**



**positiver Raum  
Komplementarität**

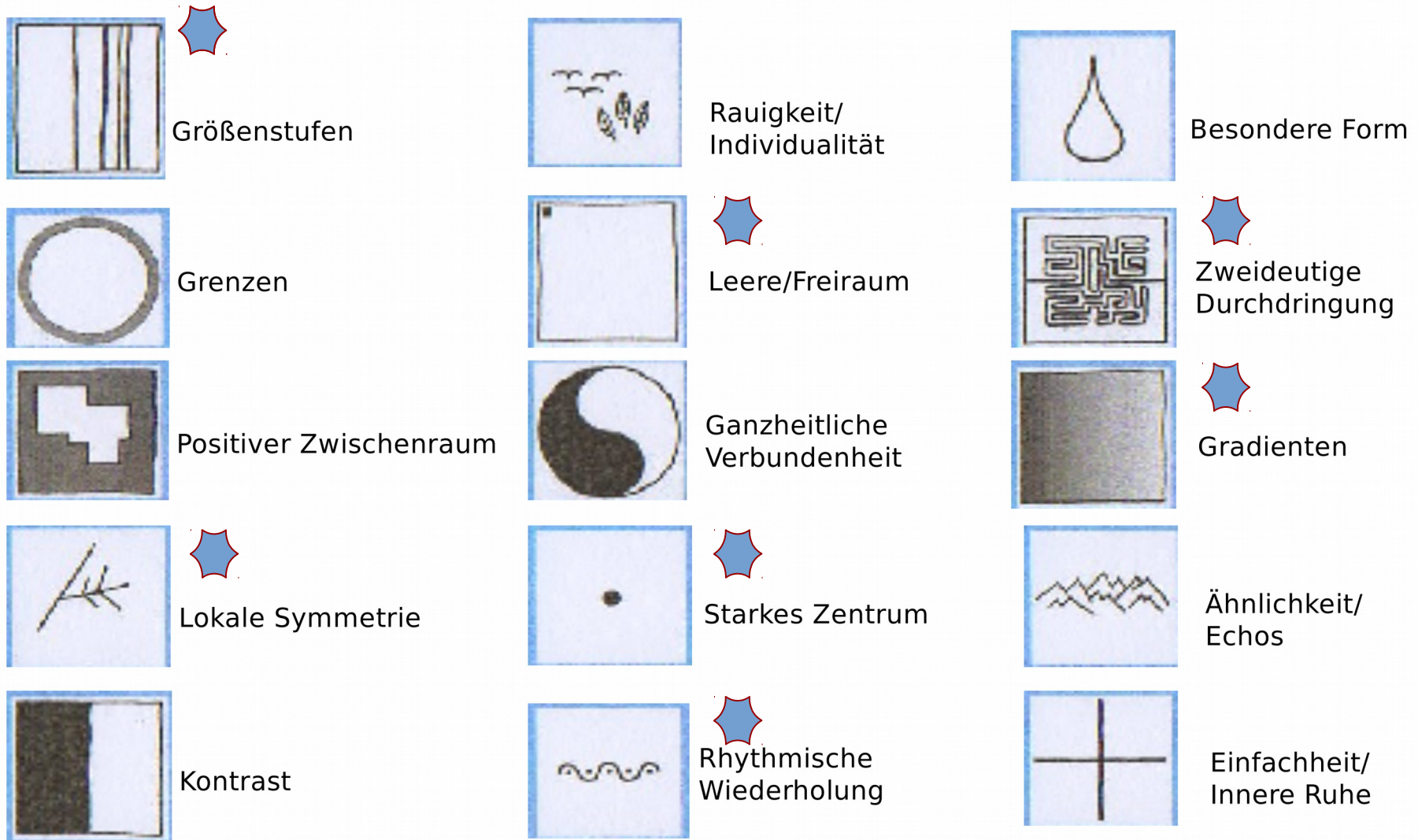


**Verschrankung  
Zweideutigkeit**



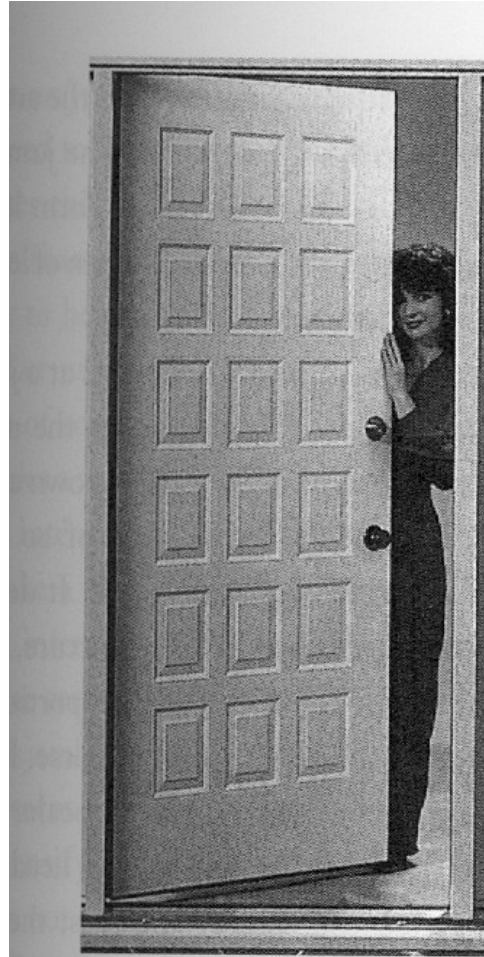
**ganzheitliche  
Verbundenheit**

# Eigenschaften lebendiger Objekte

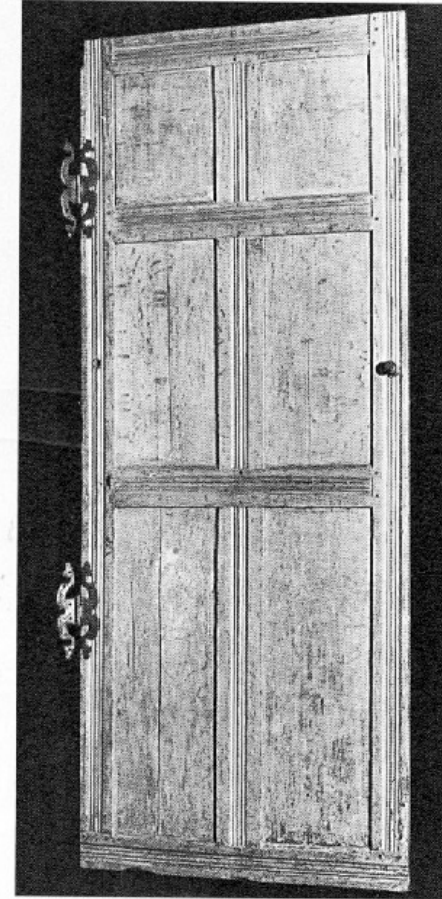


# GRÖßENSTUFEN\*

## LEVELS OF SCALE



*This door seems to have levels of scale, but they don't really work.*



*Excellent levels of scale: here the levels are beautiful, and really work.*

\*Alternative Übersetzung: Größenverhältnisse

**Quelle:  
NoO I: 147**

# STARKE ZENTREN\*

# STRONG CENTERS



\* die Pluralübersetzung ist wichtig

Quelle:  
flickr: ff 173

# STARKE ZENTREN STRONG CENTERS



# STARKE VS. SCHWACHE ZENTREN

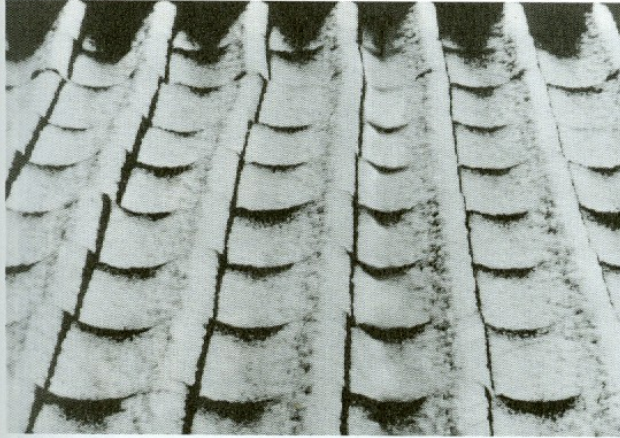


*Highly negative example of centers: house by Bruce Goff, full of weak centers*

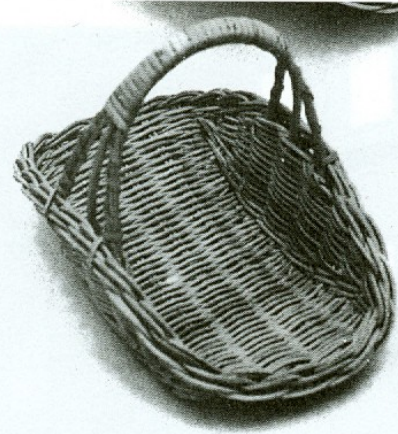
Hagia Sophia; on [Wikipedia](#) by [Arild Vagen](#)  
Lizenz: [CC: BY SA 3.0](#)  
Bruce Goff Building: NoO I: 152

# RHYTHMISCHE WIEDERHOLUNG\*

## ALTERNATING REPETITION



*Roof tiles*



*Alternating repetition in the weave of a basket*



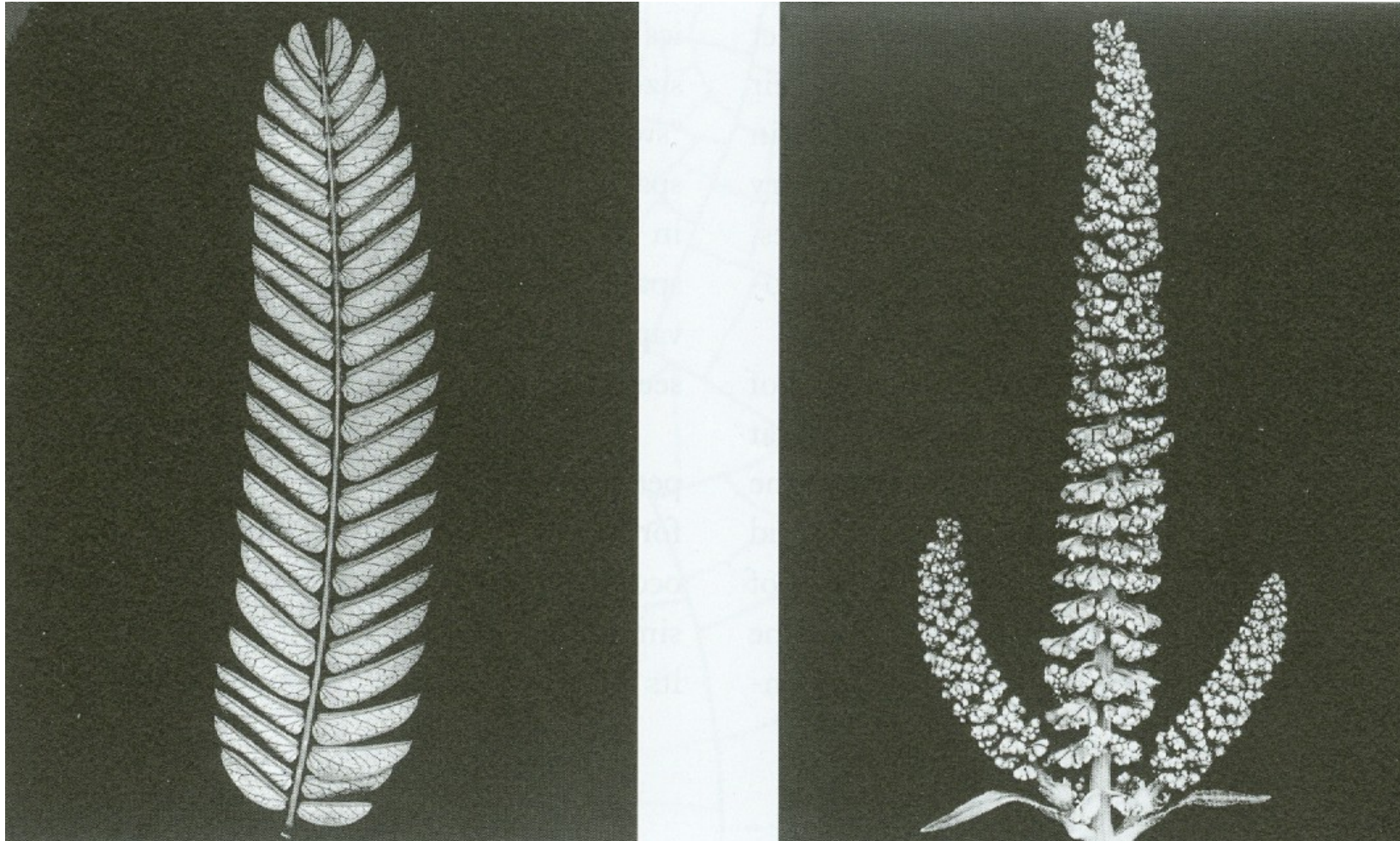
*Stones in a field-stone wall*

\*alternativ: alternierende/  
abwechslungsreiche  
Wiederholung



# RHYTMISCHE WIEDERHOLUNG

# ALTERNATING REPETITION



# RHYTHMISCHE WIEDERHOLUNG VERGLEICH



*Brunelleschi's Foundling Hospital, Florence. Here the alternation between the bays, arches, circles, columns, creates a profound and quiet alternation which makes the building vividly alive.*

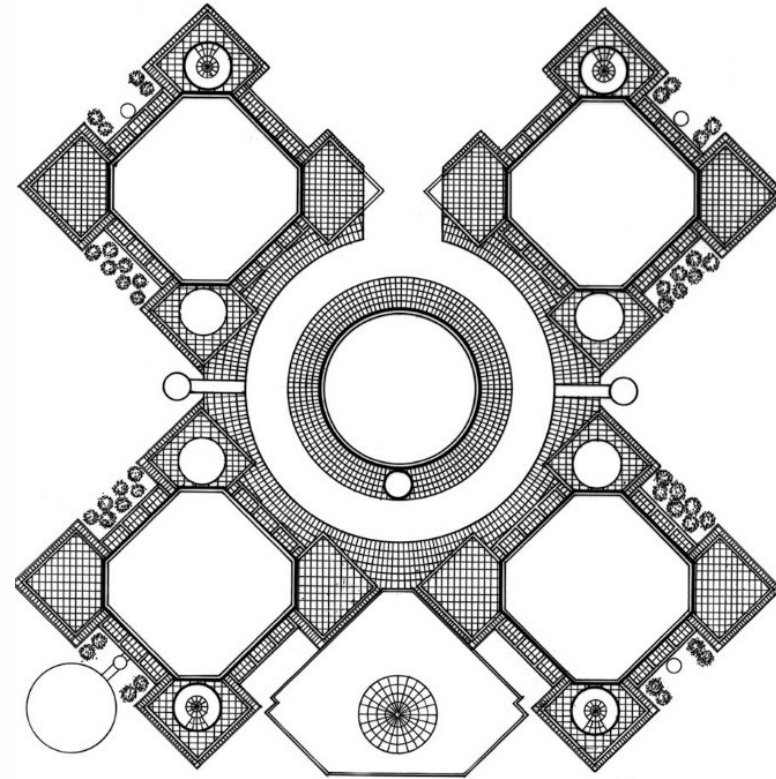
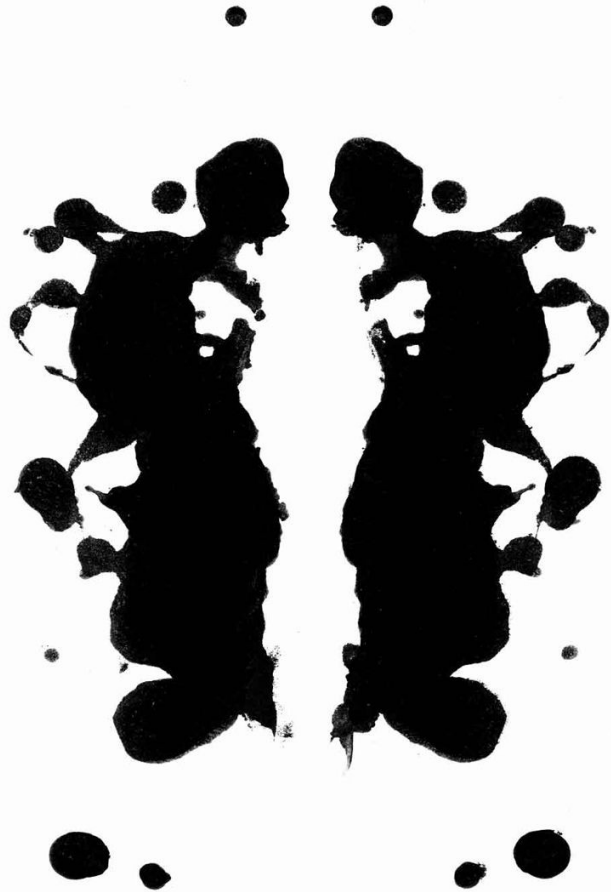


*Repetition without alternation. The repetition does nothing to enhance the living character of centers.*

**Quelle:  
NoO I: 170**

# LOKALE SYMMETRIEN

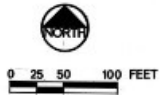
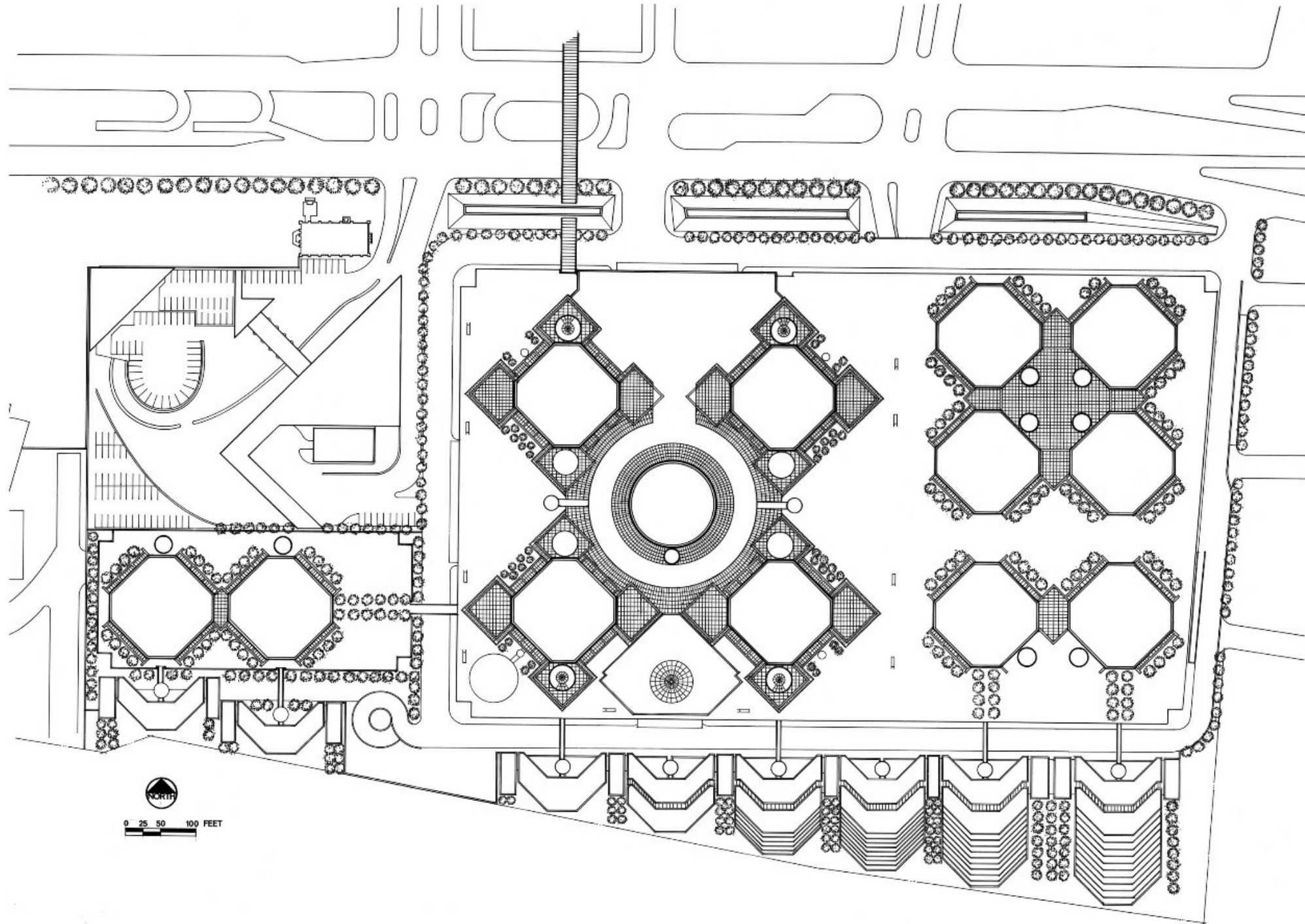
# LOCAL SYMMETRIES



Quelle:  
Rorschach Tintenkleks NoO I: 186  
Renaissance Center Detroit „symmetries are crude and totalitarian“, NoO I: 187



Google Earth



# LOKALE SYMMETRIEN LOCAL SYMMETRIES

An aerial photograph of the Alhambra in Granada, Spain. The image shows the extensive palace complex, including the Giralda tower, surrounded by dense green trees. The city of Granada is visible in the background, with its characteristic red-tiled roofs and white buildings. The foreground shows a steep, rocky cliffside.

Quelle:  
on Wikipedia  
by Mike Lehmann, Lizenz: CC BY SA 2.5.

# LOKALE SYMMETRIEN LOCAL SYMMETRIES



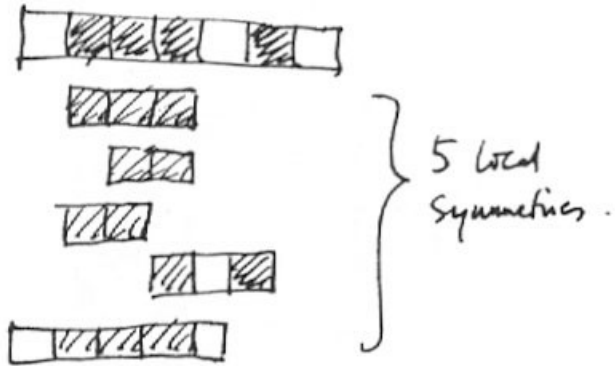
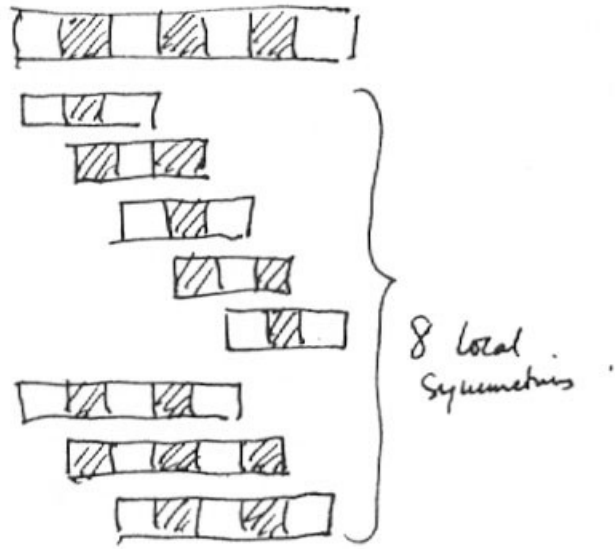
Quelle:  
on Wikipedia  
by Mike Lehmann, Lizenz: CC BY SA 2.5.





# HOW TO MEASURE ... ?

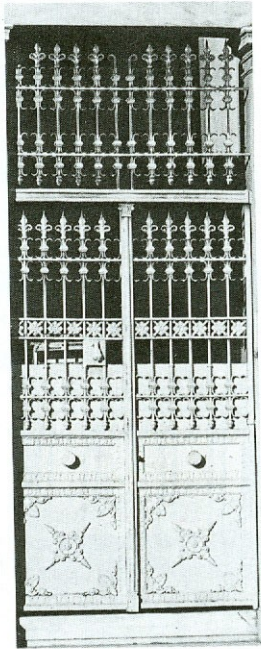
## LOCAL SYMMETRIES



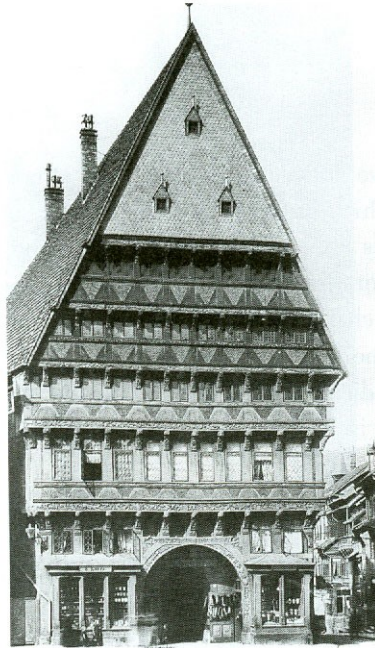
*Two of the patterns, shown with their local symmetries. The upper pattern has 9 local symmetries and appears high on the order of coherence; the lower pattern has 6 local symmetries, and appears low on the order of coherence.*

# GRADIENTEN

# GRADIENTS



*Greek ironwork*

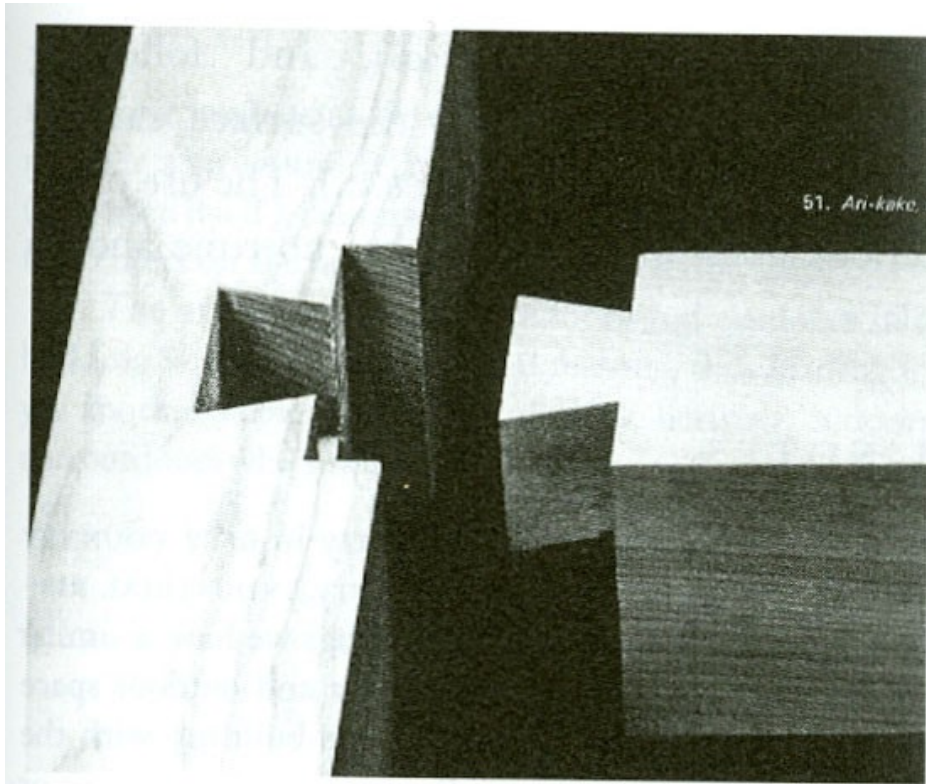


*German half-timbered house*



*Roofs of a norwegian stave church*

# ZWEIDEUTIGE DURCHDRINGUNG\* DEEP INTERLOCK AND AMBIGUITY



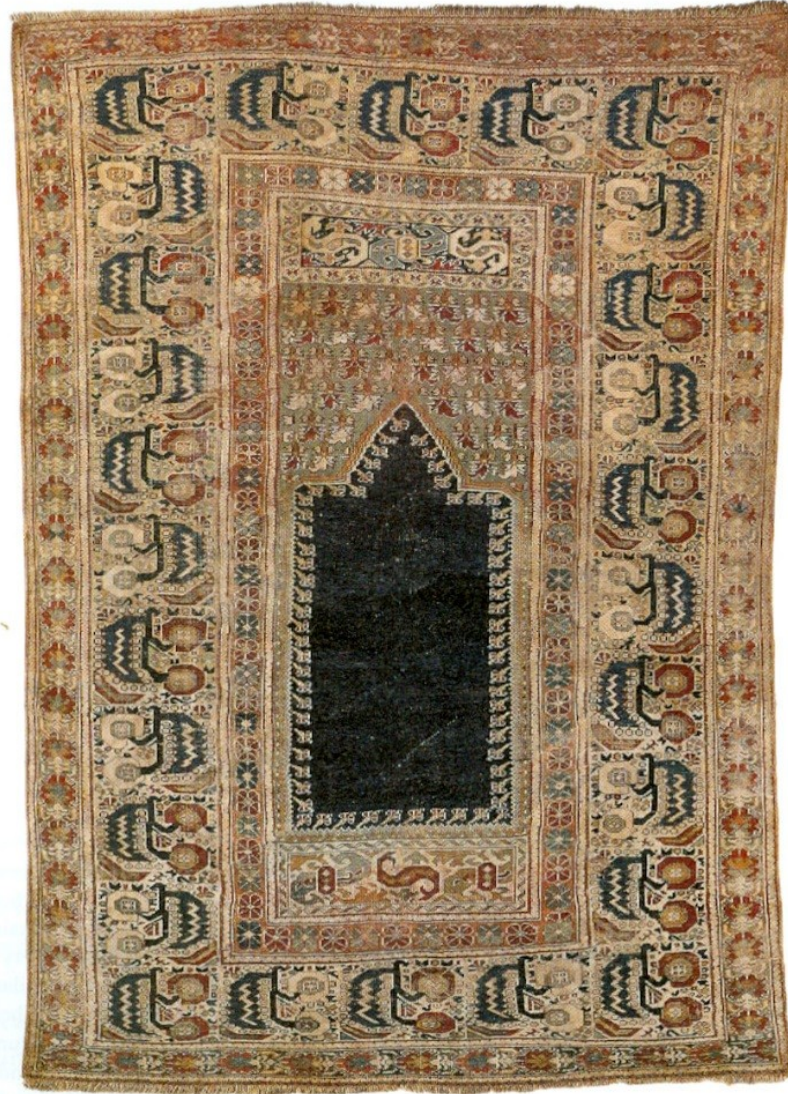
*Dovetail as an example of deep interlock*



Eigene Übersetzung: intensive Verschränkung und Zweideutigkeit

Quelle:  
Dovetail NoO I: 197; Bananen xxx

# LEERE - VOID



*Ghiordes prayer rug*

# LEERE - VOID



**Hurricane Andrew**

NOAA AVHRR 2020 UTC August 25, 1992  
Red:  $0.65 \mu\text{m}$ , Green:  $0.9 \mu\text{m}$  Blue:  $-11.0 \mu\text{m}$

NASA Goddard Laboratory for Atmospheres  
Hasler, Pierce, Palaniappan, Manyin







Versailles

Google Earth