

The Patterns of Patterns - Pattern Language and Beyond

MICC Experten/innen-Workshop, November 2010

Beyond Patterns: From Pattern Language to the Language of Centers

Patterns and A Pattern Language

- A. New Developments of Patterns and Adaptation as Archetype
- B. Patterns for Projects based on the book A Pattern Language APL

A Pattern Project Language

Based on APL plus the Formulation of a Set of new Patterns

A Project Language

Based on Visions, Concrete Imaginations, Projects, and Patterns

A Center Language

Based on Fifteen Geometrical Properties of Natural Morphology

Architecture Process and Projects

Based on Pattern Language, Language of Centers, and Adaptation as Process

Prof. Dr. Hajo Neis Portland/Berkeley

Music/Innovation/Corporate Culture

Essen - December 2010

PORTLAND URBAN ARCHITECTURE RESEARCH LABORATORY

PUARL Director Hajo Neis

The Portland Urban Architecture Research Lab attempts to ***“integrate wholeness and sustainability into the urban design process by conducting basic and applied research throughout the region and beyond in urban morphology, urban building typologies, and urban processes for civic groups, public agencies, professional firms, and development interests. Urban Morphology: We investigate patterns that enhance sustainability at the urban scale, including street networks, block and neighborhood layouts, transportation and land use systems, and urban landscapes. Urban Building Typologies: We investigate building types that contribute to greater densities and decreased vehicle use with a focus on urban housing, mixed-use buildings, and other typologies located in the central city, inner city neighborhoods, and at the urban/rural boundary. Urban Processes: We investigate processes that enhance our understanding of the emerging structure of the city and help us create urban places in an incremental and participatory manner in support of urban sustainability.”***

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PUARL Portland Urban Architecture Research Laboratory - Portland OR (US)
CES Center for Environmental Structure - Berkeley (US) and Binsted (UK)

Portland Urban Architecture Research Laboratory PUARL

PUARL Fields of Research and Investigation: Wholeness and Sustainability

Urban Morphology and Urban Patterns

Portland Urban Atlas Project

Urban Building Typologies and Building Patterns

City of Tigard Downtown Vision and Improvement Project

Design, Urban Process and Generative Process

University of Oregon Portland User and Pattern Design Process

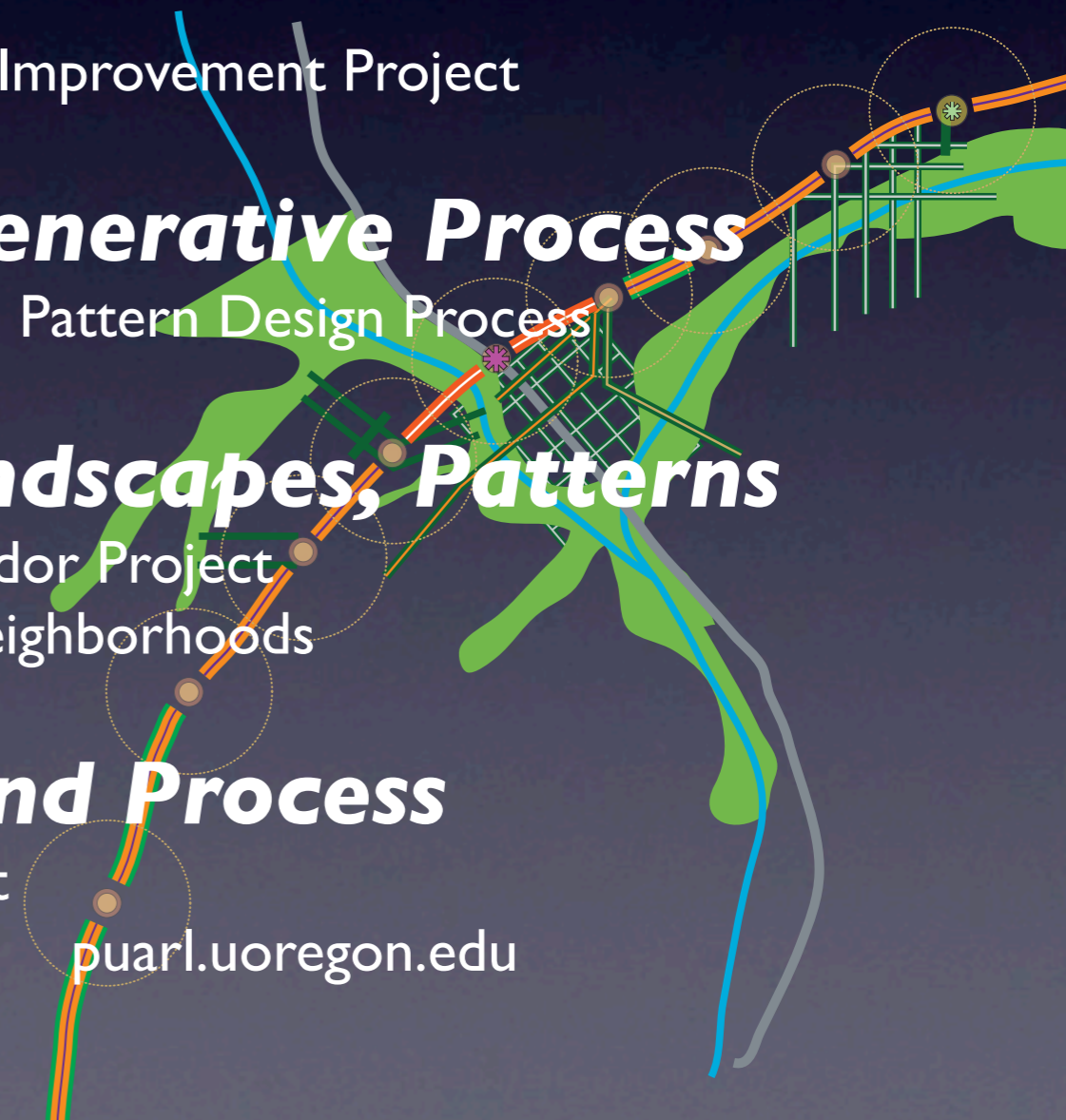
Urban Ecology and Urban Landscapes, Patterns

City of Tigard Urban Corridor Project
Eco-Pattern Districts and Neighborhoods

Quality of Structure and Process

Wellness Project

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THEORY: PATTERNS & PATTERN LANGUAGES

What are patterns and pattern languages and how are they defined and applied in your field?

A **Pattern Language** is a structured method of describing good design practices within a field of expertise. In Architecture and Urban Planning the pattern language approach has received new interest because of its potential to contribute to solving urban problems.

What is a pattern language?

What is a pattern?

What is the formal built-up of a pattern

How are patterns evaluated?

Which concept of pattern?

Why are patterns used in so many other disciplines?

Why work with patterns and APL?

Computer Sciences and Methods

Humanities and other Disciplines

Architecture and Urban Design

The Application of Patterns in Different Disciplines and Fields has increased manifold, and opens up new possibilities for interdisciplinary and integrated work.

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THEORY: PATTERNS & PATTERN LANGUAGES

Was sind Patterns und Pattern Languages, wie werden sie definiert und angewandt in ihrem Fachgebiet?

1. Q: Welche Theorie/welches Konzept von Patterns steht hinter der Arbeit mit Patterns in Ihrem Arbeitsbereich? A: Patterns sind archetypische Lösungen zu Umweltproblemen in meinem Gebiet von Architektur und Städtebau. Das Konzept des Pattern basiert daher auf der Idee des Archetypen.

2. Q: Was ist das disziplinäre Verständnis von Patterns? Computer Sciences and Methods
Warum wird mit ihnen gearbeitet, wie entstehen sie, wie werden sie beschrieben? A: Patterns werden angewandt als grundsätzliche Lösungen zu Umweltproblemen, die dann als Phenotypen konkrete Formen annehmen können. Humanities and other Disciplines

3. Q: In welchen Bereichen werden sie angewandt. Was sind kritische Erfolgsfaktoren? Welche Wirkungen sind zu beobachten? A: Patterns werden hauptsächlich in der Phase der Programmierung von Projekten und im Zusammenhang mit Benutzerbeteiligung angewandt. Architecture and Urban Design

4. Wo sehen Sie Anschlussfähigkeiten und -notwendigkeiten zu anderen Disziplinen? In der Lösung von Problemen, die interdisziplinär besser zu lösen sind. The Application of Patterns in Different Disciplines and Fields has increased manifold, and opens up new possibilities for interdisciplinary and integrated work.

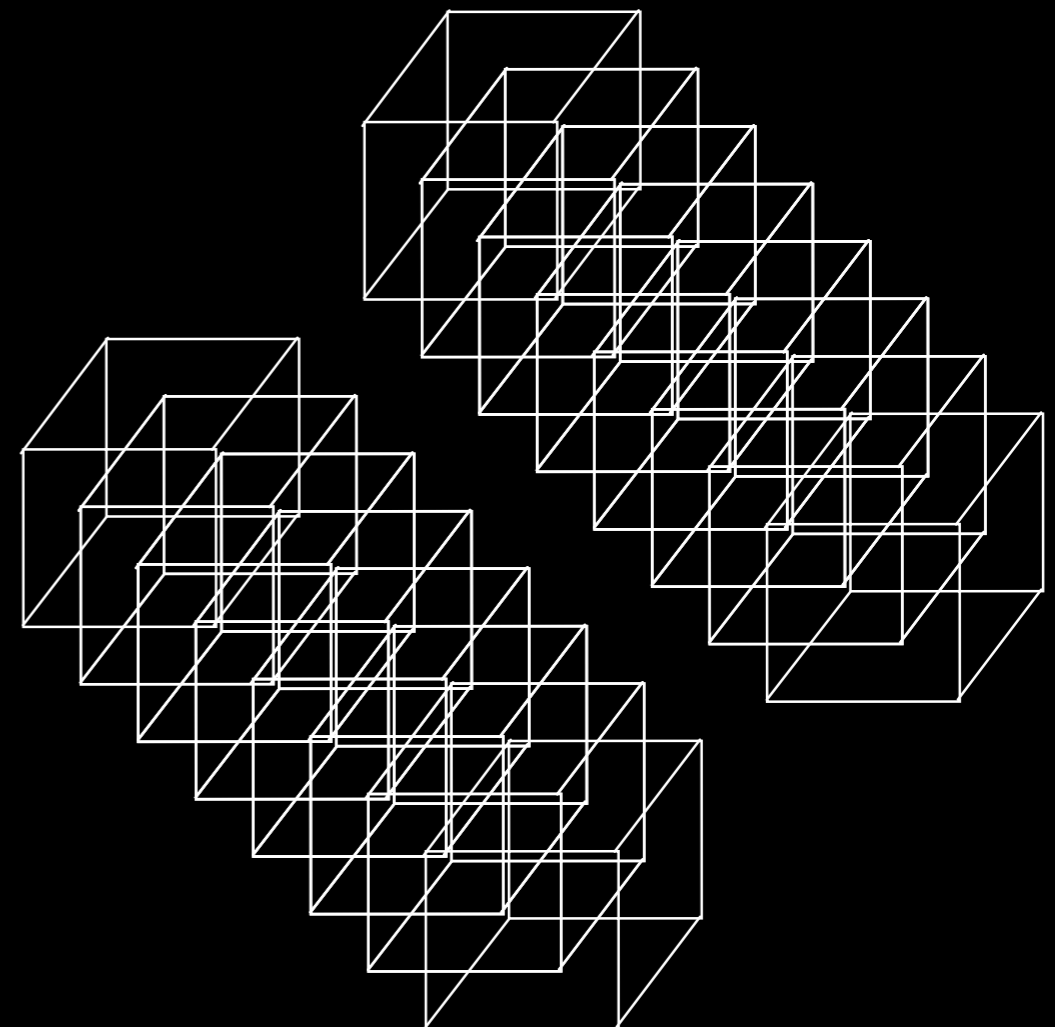
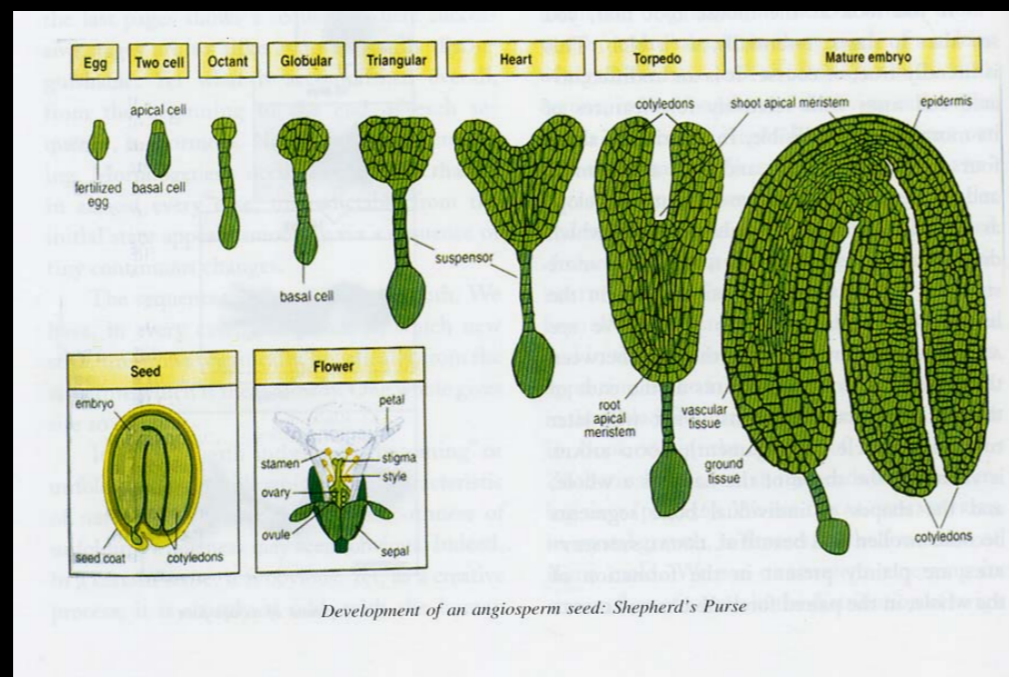
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In einem durchgaengigen Architekturprozess werden weitere Prinzipien benutzt wie das wichtige Prinzip der Adaption.

*5. Adaptive morphogenesis
vs. non-adaptive replication
of standard or ideal types*



Emoto Building Tokyo



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Meiji University Tokyo Japan

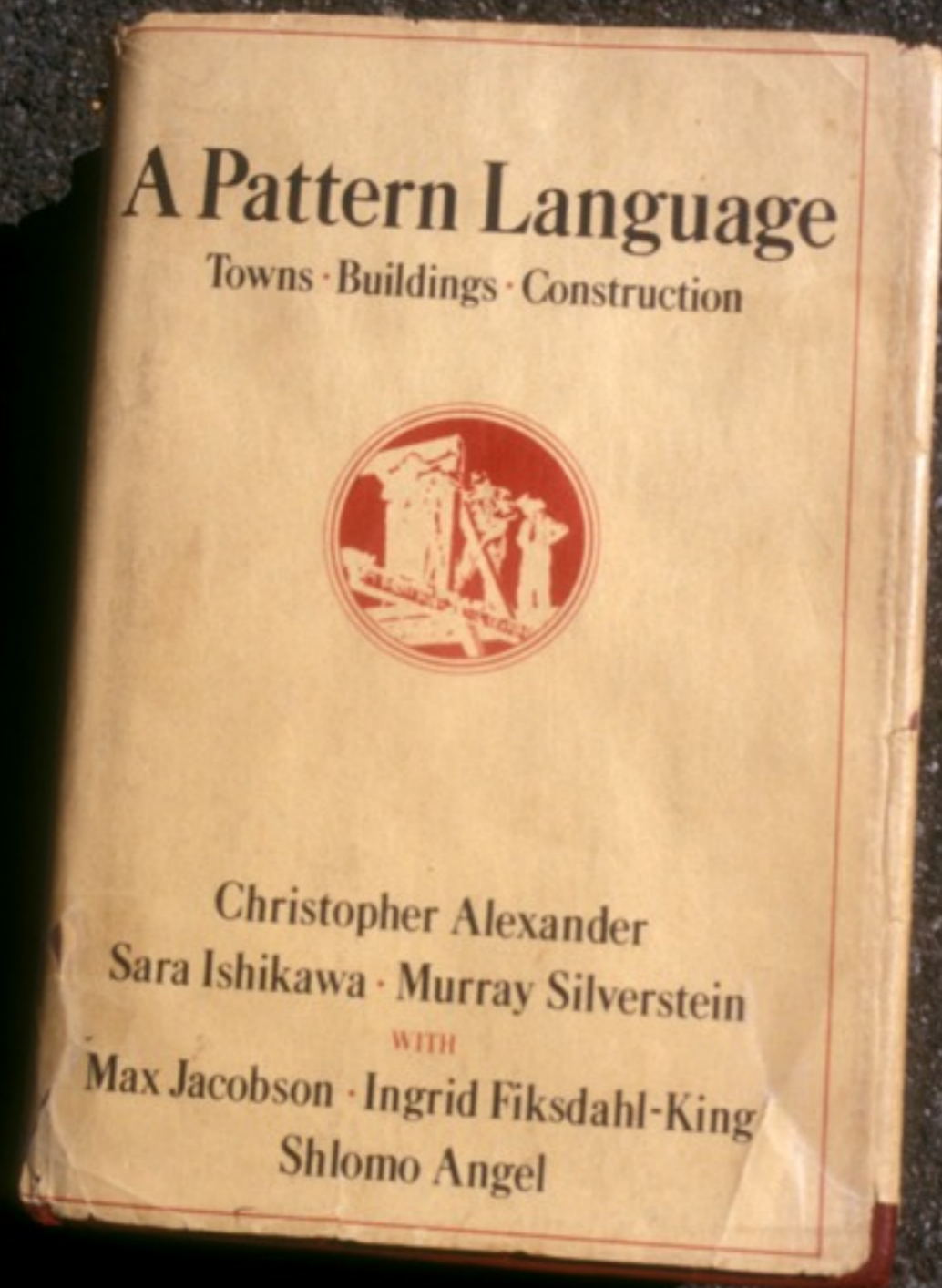
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Process of Adaptation through Mock-up Experimentation during Design Process and Building Process



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A Pattern Language is a Book with 253 Patterns



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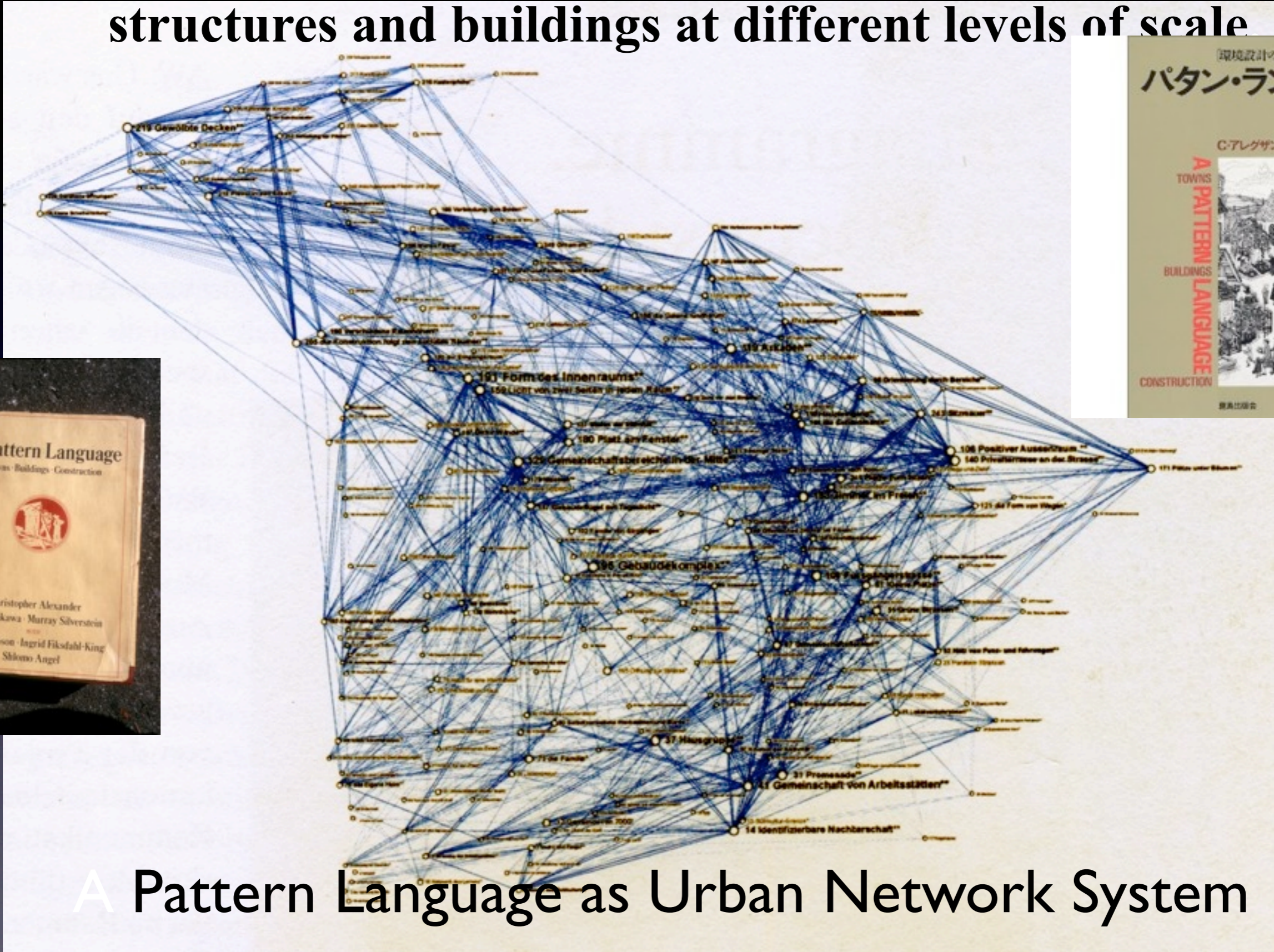
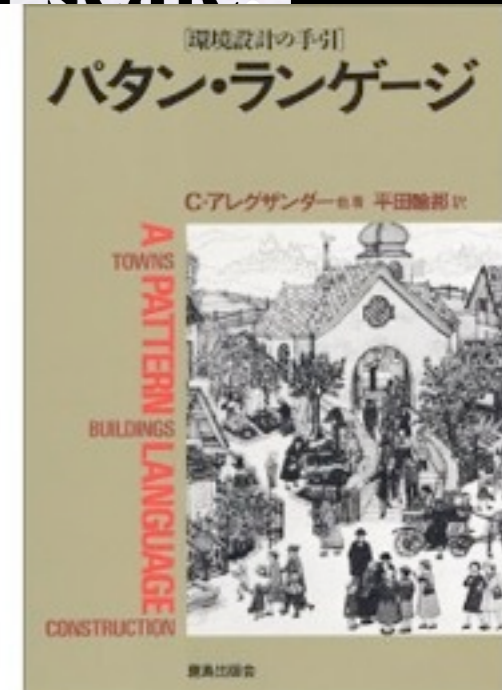
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PATTERN LANGUAGES are design systems for urban structures and buildings at different levels of scale



A Pattern Language as Urban Network System

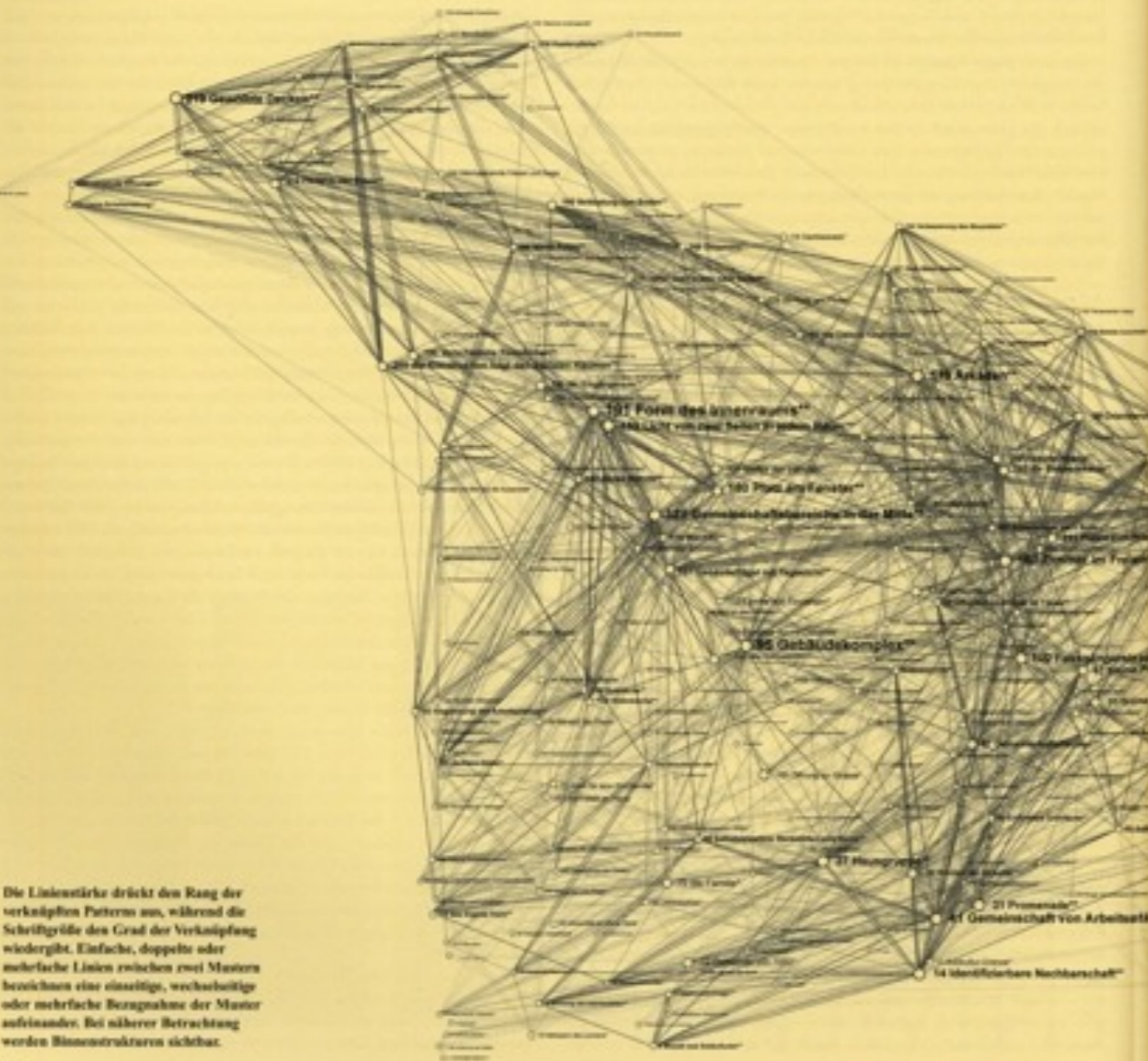
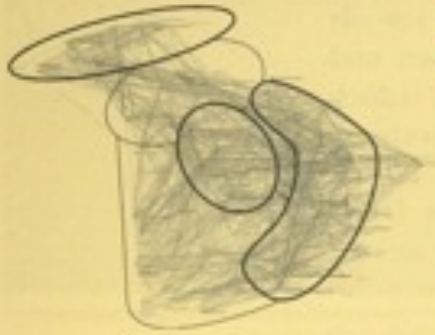
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Pattern Languages as Generative Systems and Processes

Gruppen von Mustern: oben links: kon-
kret-konstruktive Aspekte; darunter:
„Innenraum und Außenraum“; im Zen-
trum: einzelne Gebäude; links unten:
Details für das einzelne Haus; rechts:
Außenraum und urbanes Gefüge.
Grafiken: Stefan Tietke/ARCH+



Die Linienstärke drückt den Rang der
verknüpften Patterns aus, während die
Schriftgröße den Grad der Verknüpfung
wiedergibt. Einfache, doppelte oder
mehrfache Linien zwischen zwei Mustern
bezeichnen eine einseitige, wechselseitige
oder mehrfache Bezugnahme der Muster
aufeinander. Bei näherer Betrachtung
werden Binnenstrukturen sichtbar.

Hyperpattern Language

Dreißig Jahre nach ihrem Erscheinen entpuppt sich Christopher Alexanders „Pattern Language“ als Hypertext *avant la lettre*. Das Buch ist eine Sammlung von 253 Entwurfsmustern, die jeweils einen klar umgrenzten architektonischen Aspekt beschreiben und Handlungsstrategien vorschlagen. Keines der Muster existiert jedoch losgelöst von seinem architektonischen Kontext. Diese Kontextualisierung erfolgt durch ein differenziertes System von Verweisen (einfach, wechselseitig, mehrfach, qualifiziert) auf andere Muster. Diese systemische Verknüpfung der Muster untereinander hebt die lineare Struktur des herkömmlichen Buchs auf: Der Benutzer kann an jeder Stelle in den Text einsteigen und den Verweisen folgend durch das Buch navigieren.

Komplementär zur scheinbar egalitären Struktur des Musternetzes gibt es zumindest zwei formale Gliederungsebenen. Zum einen ist das Buch in die drei Abschnitte „Städte“, „Gebäude“ und „Konstruktion“ unterteilt. Zum anderen werden die Muster qualifiziert: Diejenigen, die allgemeine Gültigkeit beanspruchen, werden mit zwei Sternchen markiert, wohingegen Muster mit nur einem oder ohne Stern entsprechend geringere Bedeutung haben.

Mit der Software zur Graphenvisualisierung „GraphViz“, die aus der Verknüpfungsstruktur selbstständig eine graphische Darstellung generiert, haben wir die verborgenen Strukturen der Pattern Language sichtbar gemacht, indem wir alle Muster mit ihren Verknüpfungen auf einen Blick zeigen. *Stefan Tietke*

A Pattern Language is also a generative system or process, defined as a combination of principles, parameters and rules that interact and work together to form or maintain a system, a structure, an organization, cities, buildings, parks, and gardens.

REGELBASIERTES ENTWERFEN

Ongoing Discussion and Publications since 1966

NOTES ON THE SYNTHESIS OF FORM

CHRISTOPHER ALEXANDER



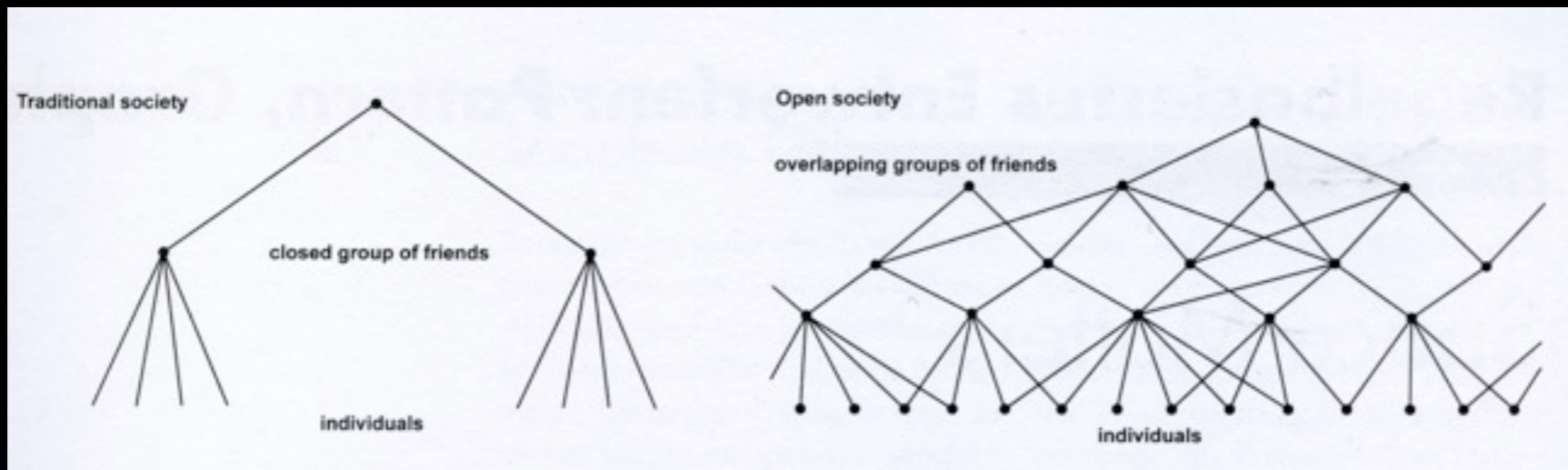
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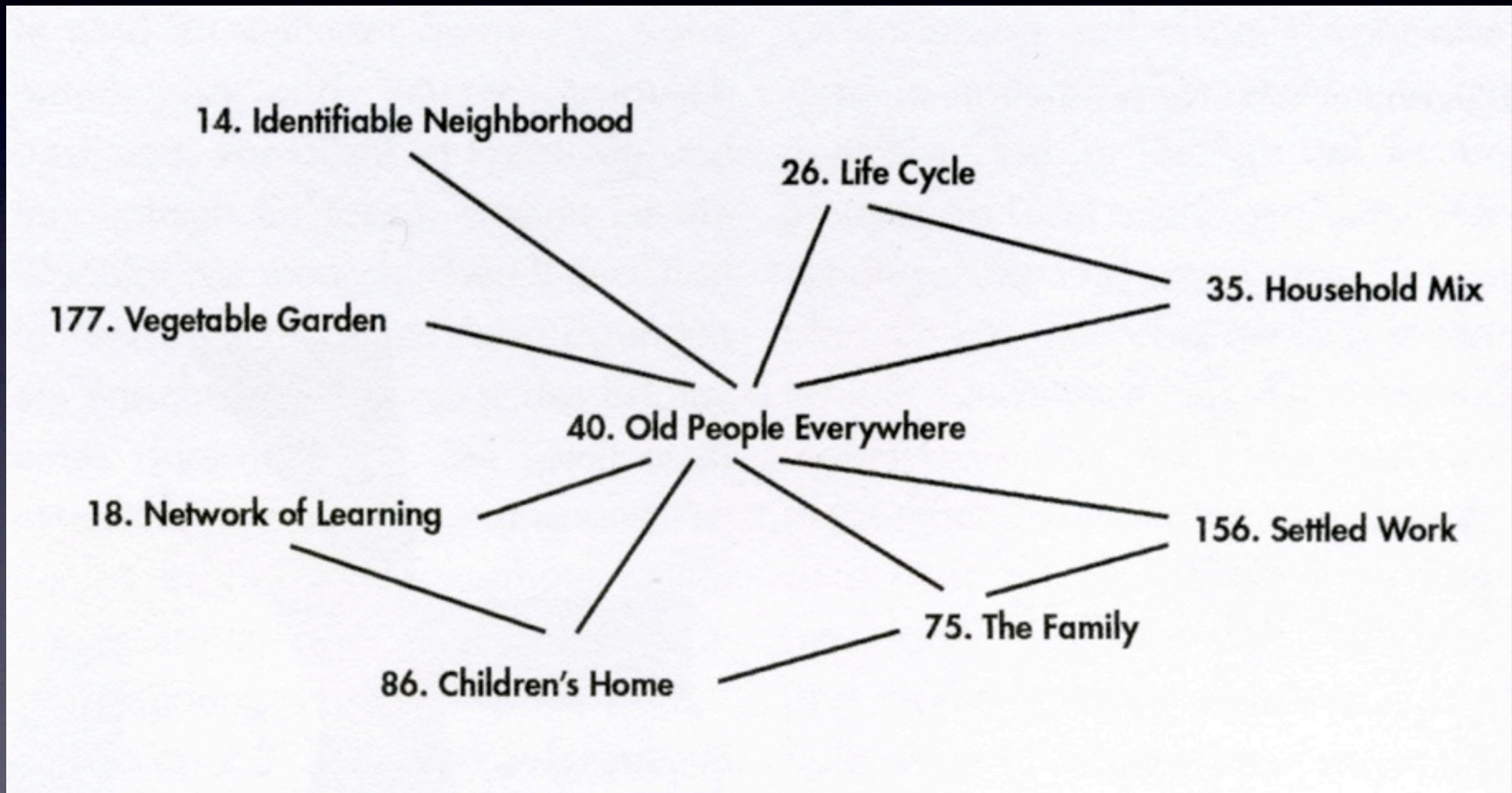
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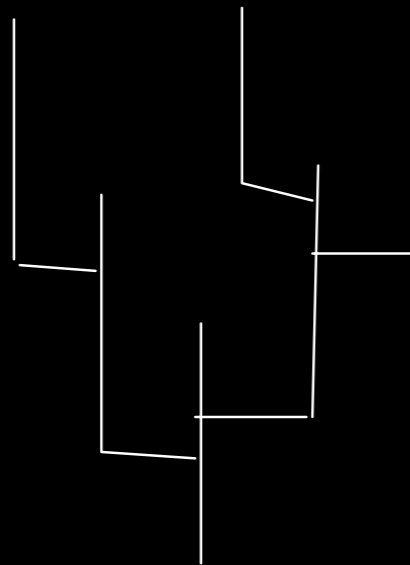


Hierarchy
("Tree")

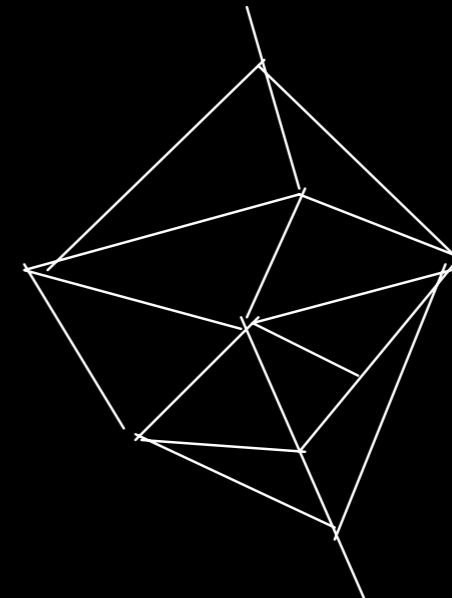


Network
("Semi-Lattice")





Rational Hierarchy
("Planned")



Complex Network
("Emergent")

FUNDAMENTAL RESEARCH QUESTIONS:

What are good structures?

What are good processes?

What are good processes that create good structures?

How are patterns evaluated?

The question is not only: What is a structure or a pattern?
But the question is: What is a good structure, a good pattern?

The question of quality or good structures and processes plays a central role in the work of
CES and PUARL.

PUARL Portland Urban Architecture Research Laboratory - Portland OR (US)

CES Center for Environmental Structure - Berkeley (US) and Binsted (UK)

puarl.uoregon.edu

patternlanguage.com (CES)

The Timeless Way of Building



QUWAN

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Christoph



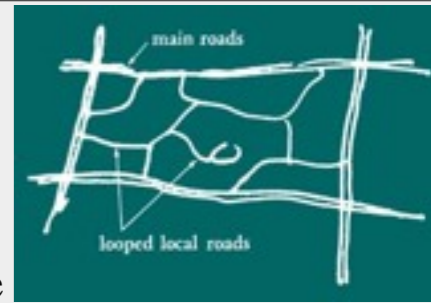
MICC
Verbindung

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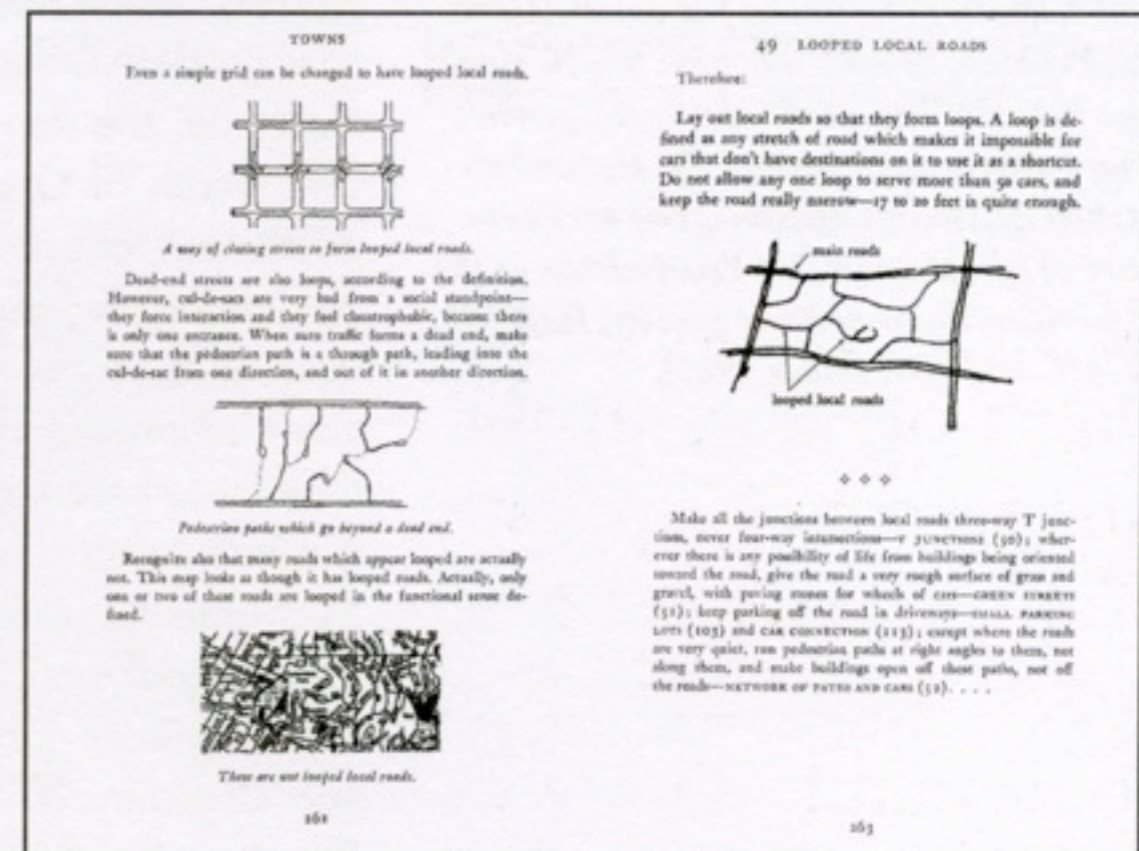
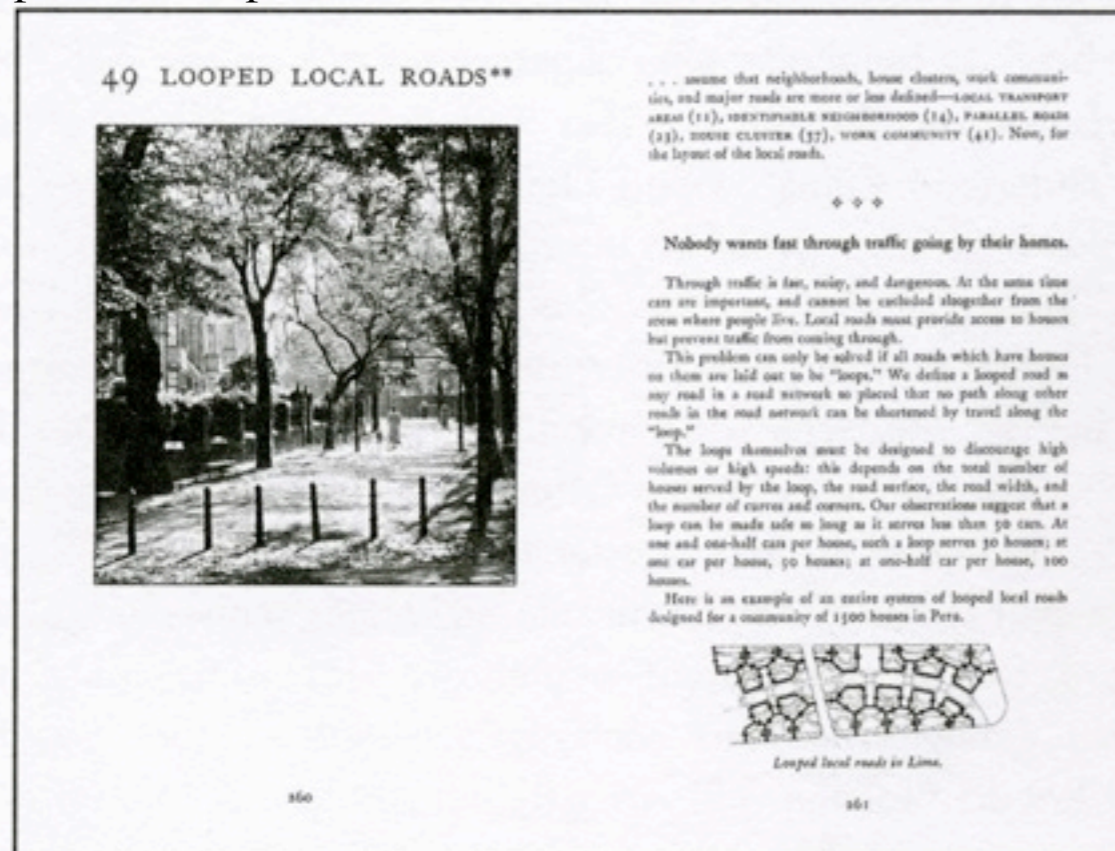
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FORMAL BUILT-UP OF A PATTERN (Example: 49 Looped Local Roads)

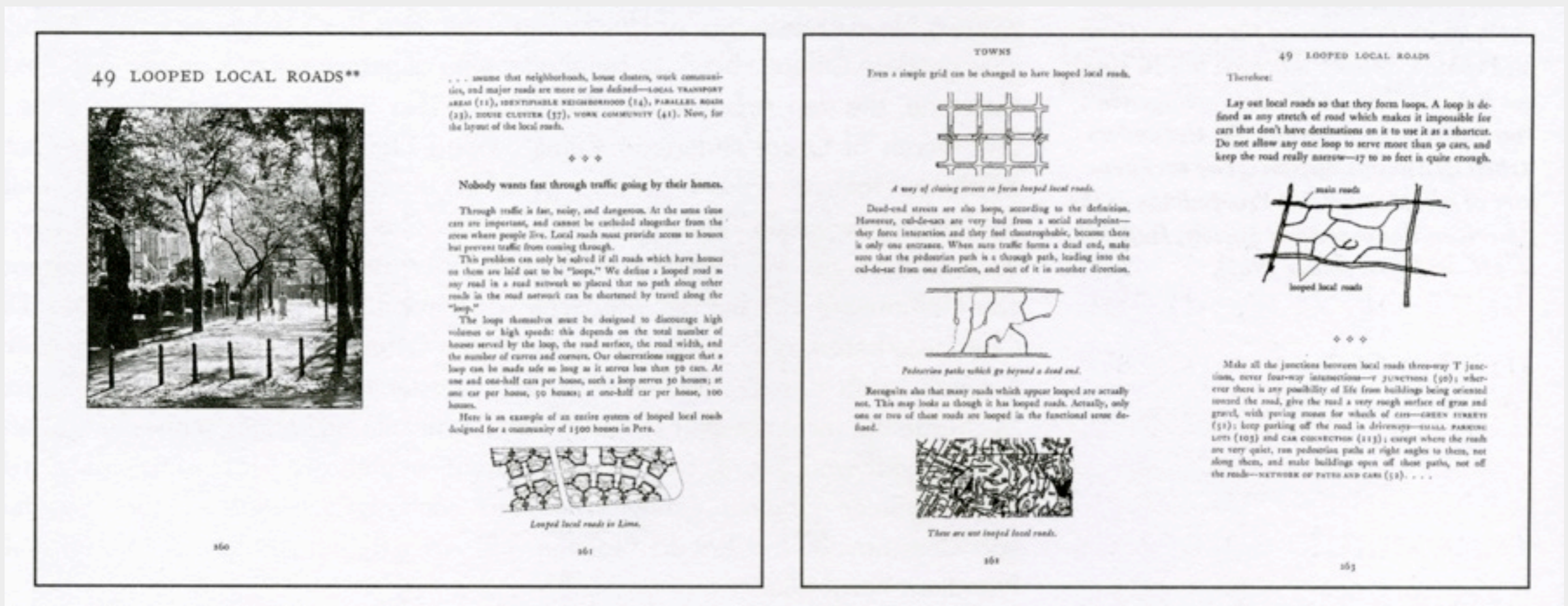


- **Pattern Title** (with or without stars)
- **A Picture** that represents the Pattern
- **Hyperlinks**, which connect the pattern with other patterns at a higher scale (local transport area, identifiable neighborhood, etc)
- **Description of Problem** in bold letters (“**Nobody wants fast through traffic going by their homes.**”)
- **Main Text:** Here the empirical evidence and/or analytical reasoning for the validity of the pattern is demonstrated. A series of applications of the pattern are shown.
- **Proposal for solution:** Text in bold, which shows the solution of the problem, that is the physical actions and social connections, that are proposed to solve the problem. The solution s given in form of an instruction so that one knows what to do or how to proceed. (“**Lay out local roads so that they form loops. A loop is defined as any stretch of road which makes it impossible for cars that don’t have destinations on it to use it as a short cut. Do not allow any one loop to serve more than fifty cars and keep the road really narrow - 17-20 feet is quite enough.**”)
- **Sketch**, which shows the solution of the problem in form of a diagram.
- **Hyperlinks**, which connect the pattern to other more specific patterns at lower scales, and which help to complete this pattern for specific contexts.

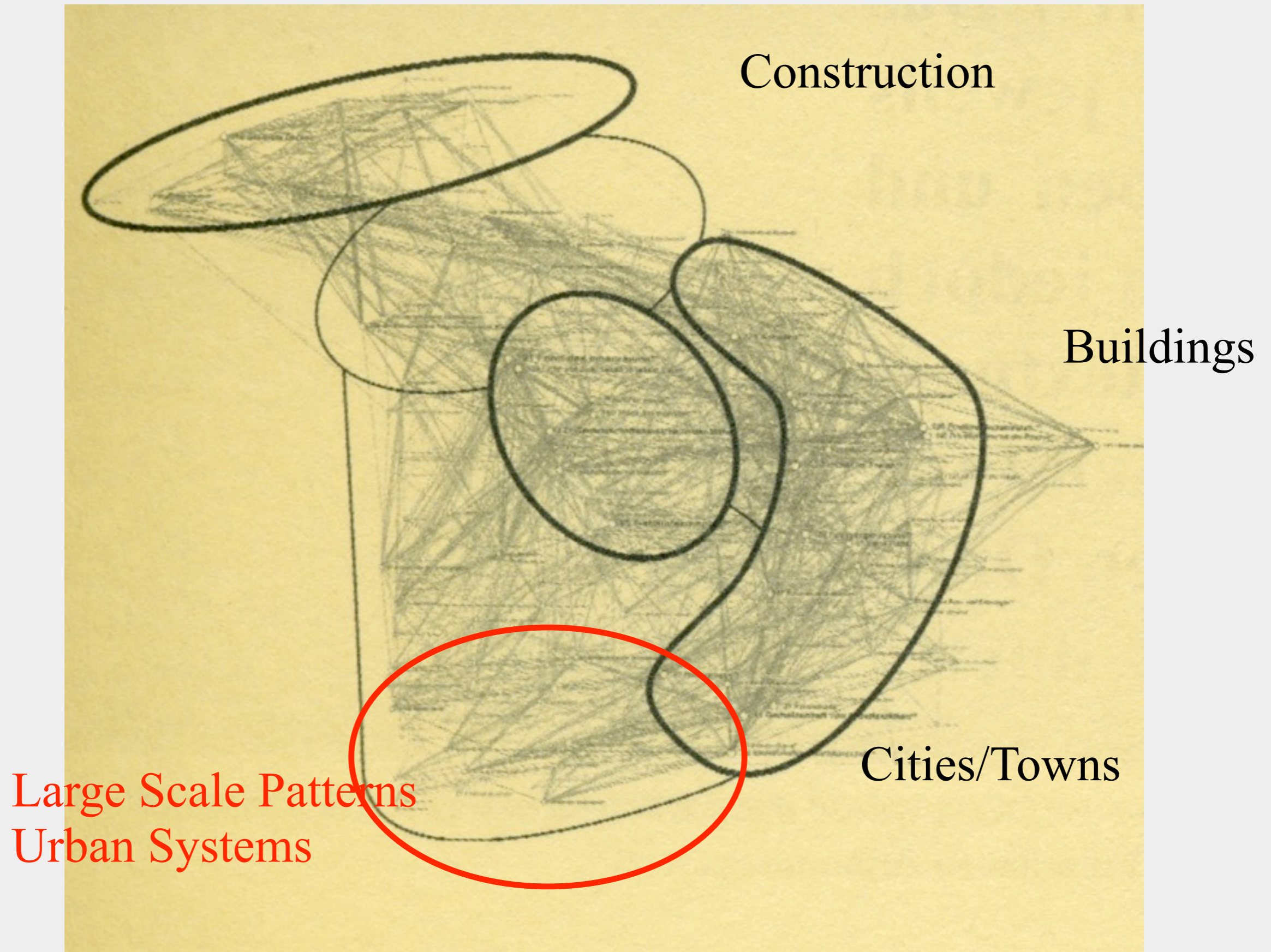


Aufbau eines Pattern aus dem Buch: A Pattern Language (Beispiel Looped Local Roads)

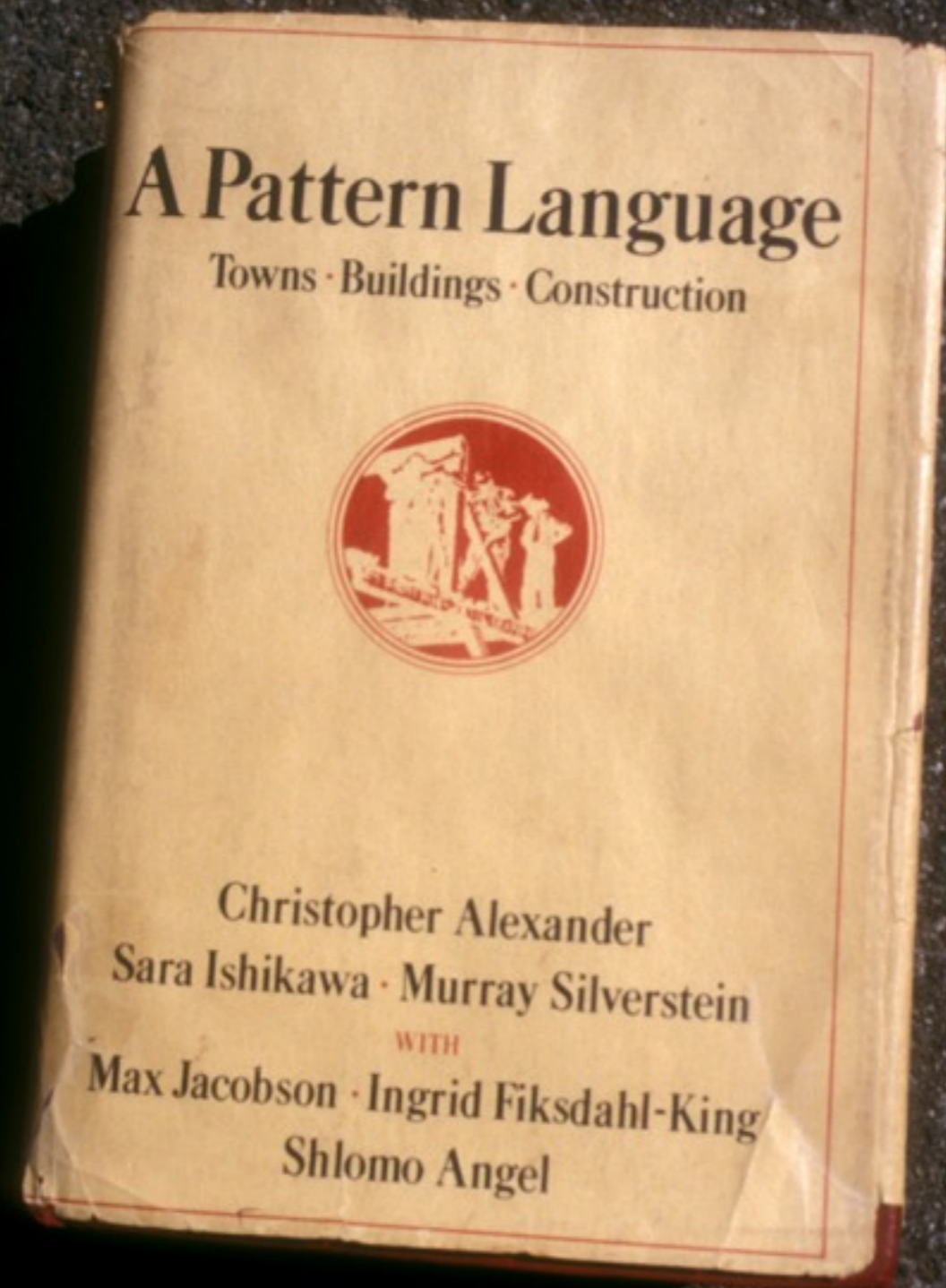
- **Pattern Titel** (Sternchen als Qualitätsempfehlung)
- **Ein Bild** welches das Pattern beispielhaft darstellt
- **Hyperlinks**, die das Pattern nach oben zu anderen Patterns verbinden (local transport area, identifiable neighborhood, etc)
- **Beschreibung des Problems** in fetter Schrift (“**Nobody wants fast through traffic going by their homes.**”)
- **Haupttext:** Hier wird der empirische oder analytische Nachweis gefuehrt fuer die Gueltigkeit des Pattern und eine Reihe von Anwendungsmoeglichkeiten werden aufgezeigt.
- **Loesungsvorschlag:** Text in dicker Schrift, der die Loesung des Problems darstellt, also die physischen und sozialen Verbindungen, die noetig sind um das Problem zu loesen. Die Loesung ist in der Form einer Instruktion gegeben, damit man weiss was man machen soll oder wie man vorgehen soll. (“**Lay out local roads so that they form loops. A loop is defined as any stretch of road which makes it impossible for cars that don’t have destinations on it to use it as a short cut. Do not allow any one loop to serve more than fifty cars and keep the road really narrow - 17-20 feet is quite enough.**”)
- **Skizze**, die die Loesung des Problems in Form eines Diagramms aufzeigt.
- **Hyperlinks**, die das Pattern nach unten zu weiteren spezifischen Patterns verbinden, die hilfreich sind oder helfen dieses Pattern fuer bestimmte Kontexte zu vervollstaendigen.



How are patterns in the book *A Pattern Language* APL clustered?



10 Large Scale Regional/Urban Patterns



WORLD

1. Independent Regions

REGION

2. The Distribution of Towns

3. City Country Fingers

4. Agricultural Valleys

5. Lace of Country Streets

6. Country Towns

7. The Countryside

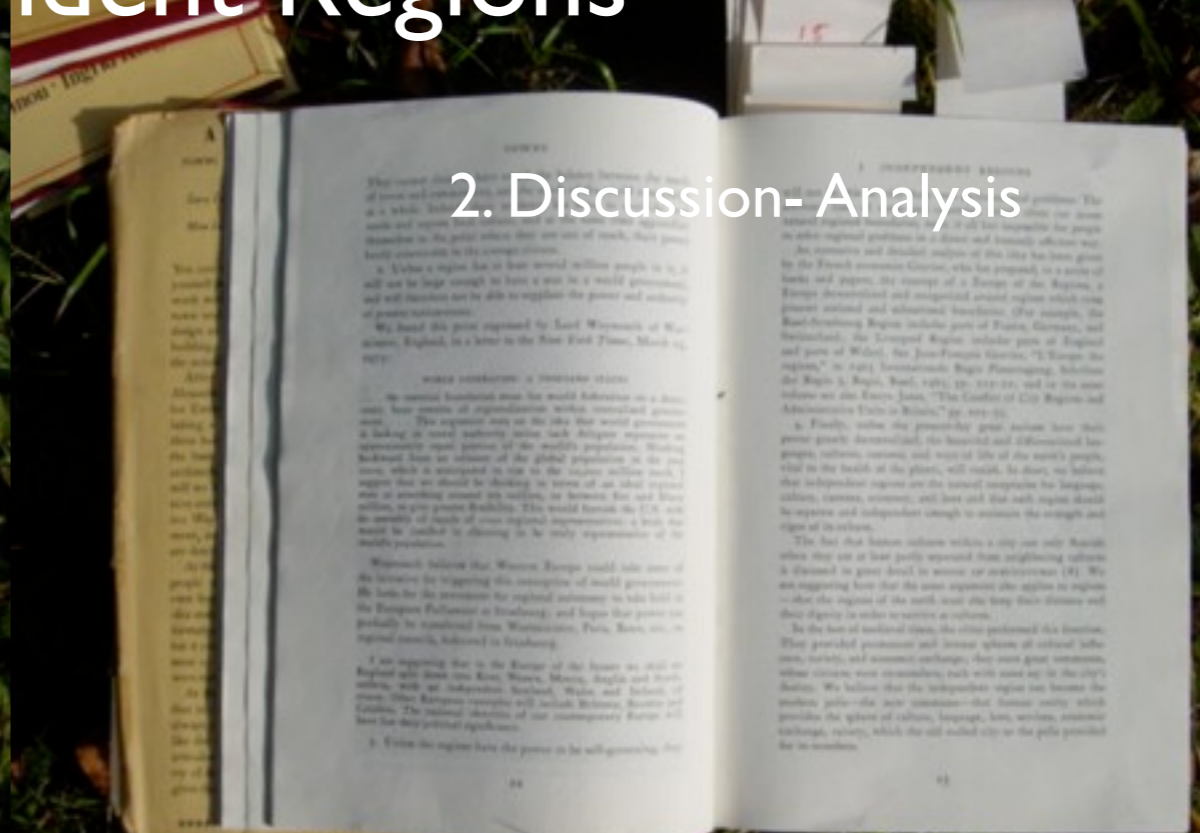
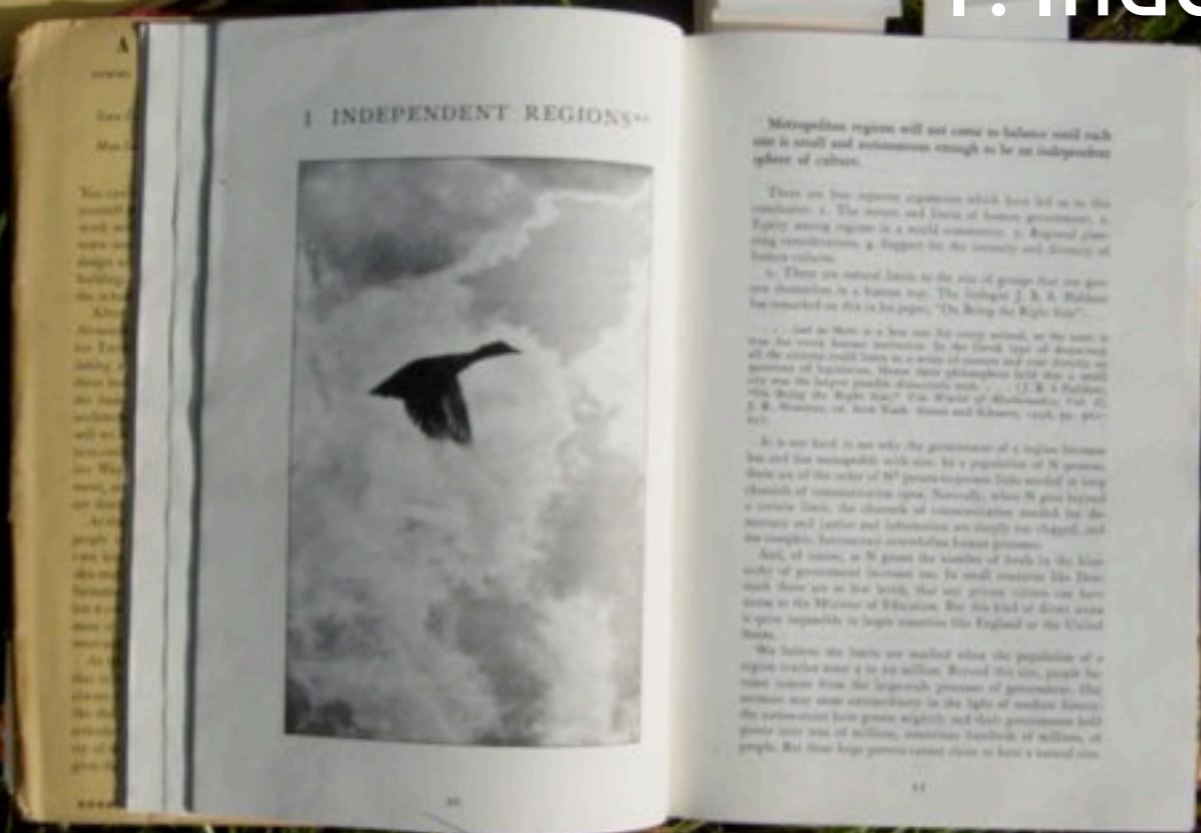
CITY

8. Mosaic of Subcultures

9. Scattered Work

10. Magic of the City

I. Independent Regions



I. Problem Statement

Metropolitan regions will not come to balance until each one is small and autonomous enough to be an independent sphere of culture.



3. Suggestion, Solution, Action

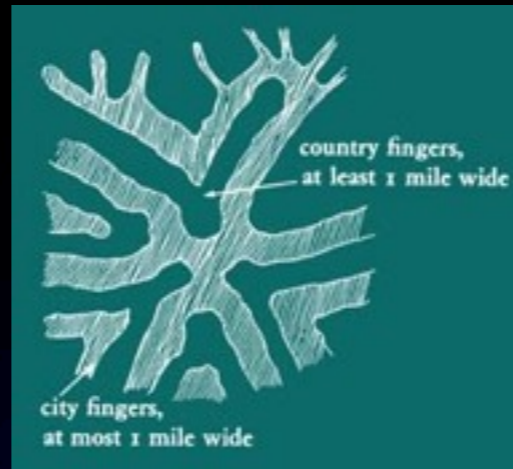
Wherever possible, work towards the evolution of independent regions in the world; each with a population between 2 and 10 million ; each with its own natural and geographic boundaries; each with its own economy; each one autonomous and self governing, each with a seat in the world government, without the intervening power of larger states and countries."

3. City Country Fingers

1. Problem Statement

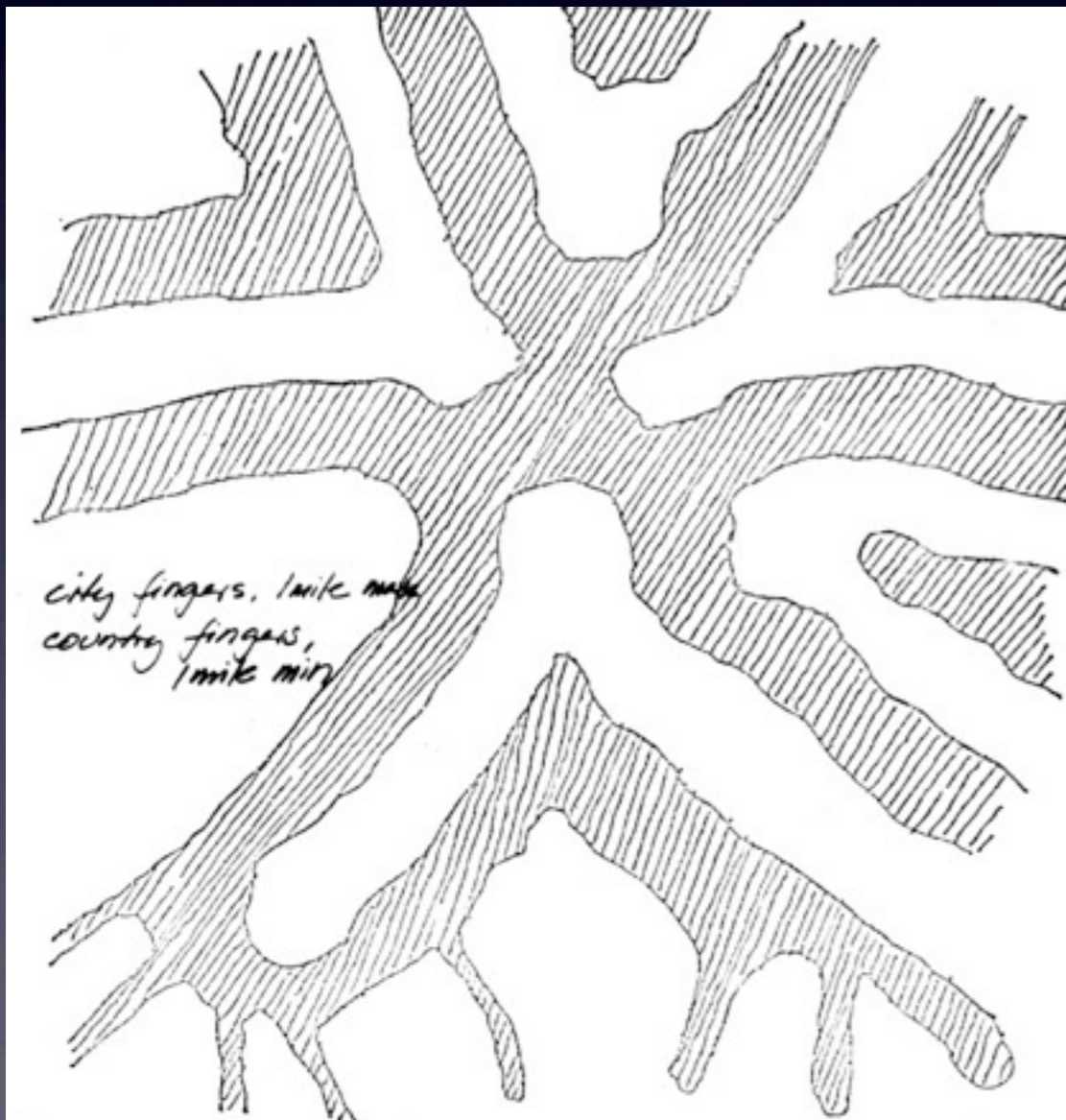
Continuous sprawling urbanization destroys life, and makes cities unbearable. But the sheer size of cities is also valuable and potent.

2. Discussion-Analysis



3. Proposed Solution

Keep interlocking fingers of farmland and urban land, even at the center of the metropolis. The urban fingers should never be more than 1 mile wide, while the farmland fingers should never be less than 1 mile wide.



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8. Mosaic of Subcultures

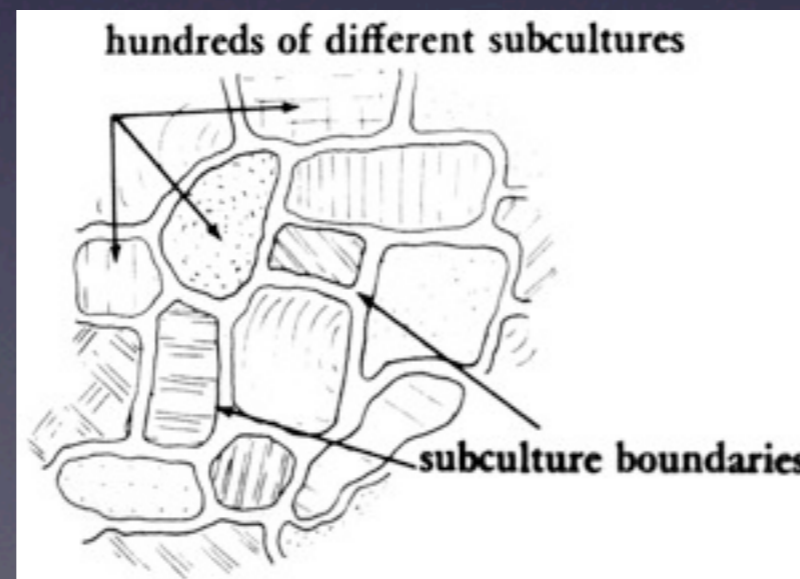
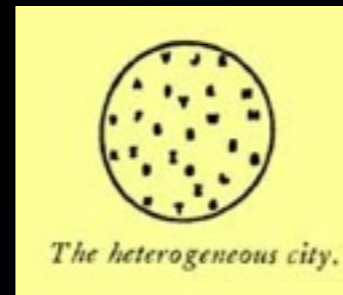
I. Problem Statement

The homogeneous and undifferentiated character of modern cities kills all variety of life styles and arrests the growth of individual character.



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2. Discussion-Analysis



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3. Proposed Solution

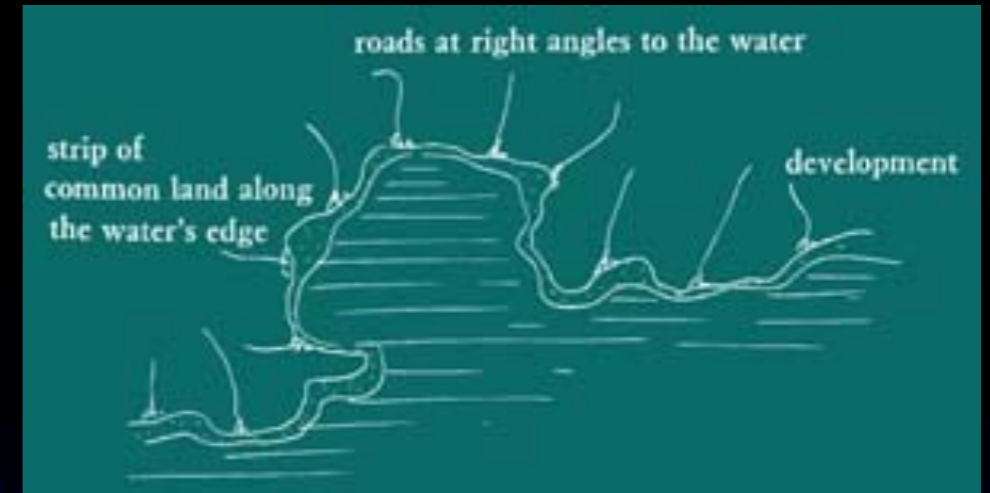
Do everything possible to enrich the cultures and subcultures of the city, by breaking the city, as far as possible, into a vast mosaic of small and different subcultures, each with its own spatial territory, and each with the power to create its own distinct life style. Make sure that the subcultures are small enough, so that each person has access to the full variety of life styles in the subcultures near his own.



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25. Access to Water



http://vasarhelyi.eu/books/A_pattern_language_book/apl.htm

Problem Statement

People have a fundamental yearning for great bodies of water. But the very movement of the people toward the water can also destroy the water.

Therefore:

When natural bodies of water occur near human settlements, treat them with great respect. Always preserve a belt of common land, immediately beside the water. And allow dense settlements to come right down to the water only at infrequent intervals along the water's edge.

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Main Gateways #53



Boundary gateway transition

53 Main Gateways



Any part of a town - large or small - which is to be identified by its inhabitants as a precinct of some kind, will be reinforced, helped in its distinctness, marked, and made more vivid, if the paths which enter it are marked by gateways where they cross the boundary.

Therefore:

Mark every boundary in the city which has important human meaning - the boundary of a building cluster, a neighborhood, a precinct - by great gateways where the major entering paths cross the boundary.



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PATTERNS AND A PATTERN LANGUAGE

A. New Developments of Patterns and Adaptation as Archetype

A new Pattern is developed or an existing pattern is modified as an archetype. In this case adaptation is applied to the development or modification of a Pattern by itself (i.e. Thick Wall of Sakura Tsutsumi).

Archetype - Phenotype

Genotype - Phenotype)

Patterns are Archetypes not Genotypes because their Characteristics are not coded in some Genes but in archetypal Characteristics based on functional requirements or pressure.

An Archetype still needs to be translated into a Phenotype through the architectural Process.

B. Patterns for Projects based on the book

A Pattern Language APL

Only happens as initial Check of Patterns for particular Project Topics

See example of Housing Patterns from APL

Archetypes still need to be translated into Phenotypes

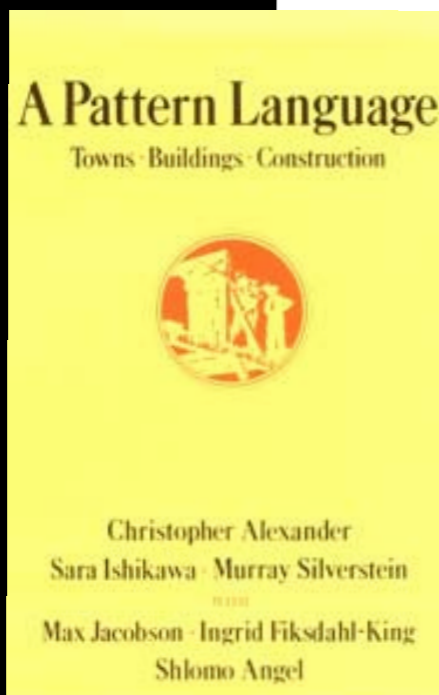
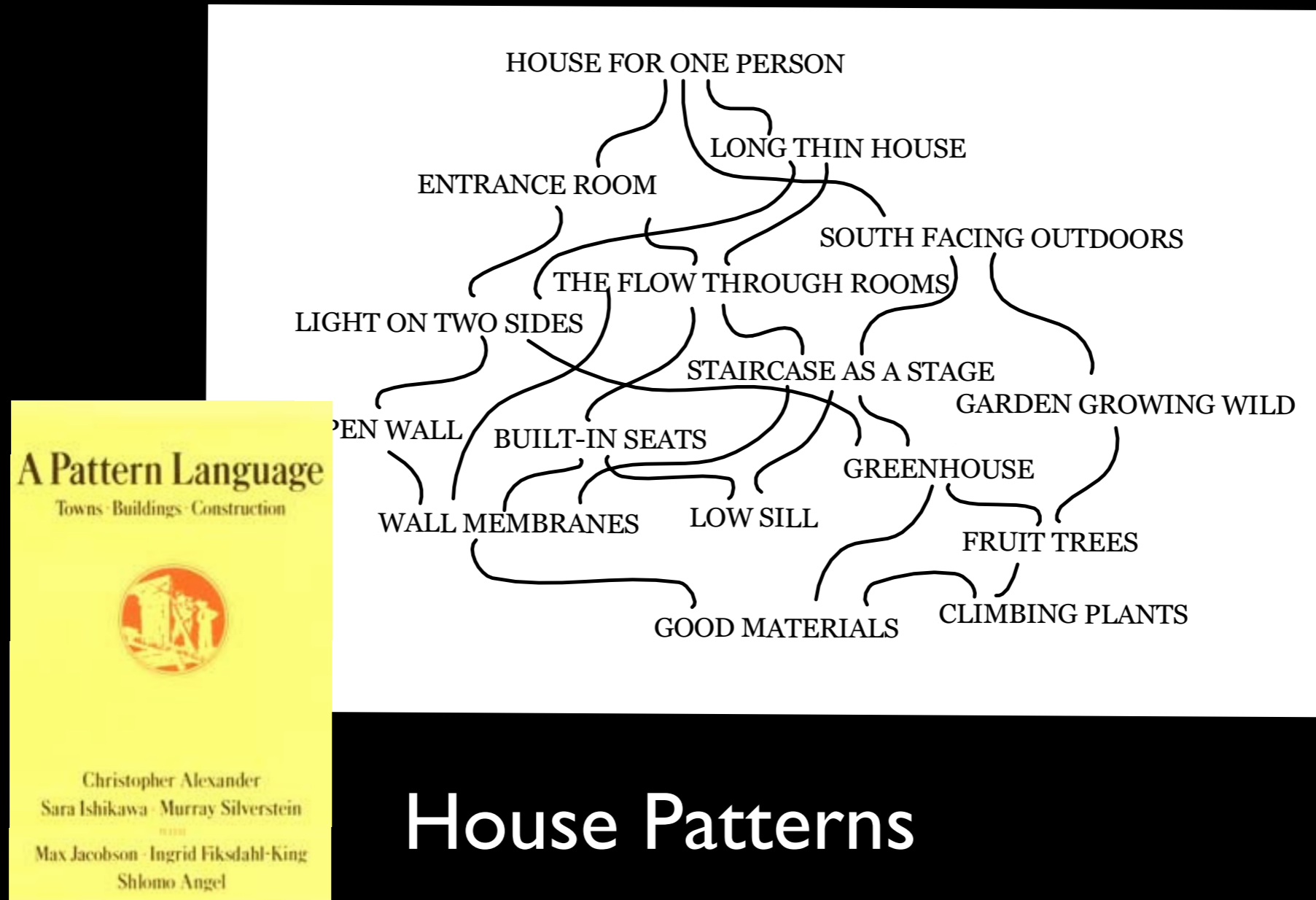
The Sakura Tsutsumi Office and House in Tokyo

Wholeness and Sustainability
Culture and Technology
Kura and Comfort



Patterns from APL: House Project

A Pattern Language (1977)



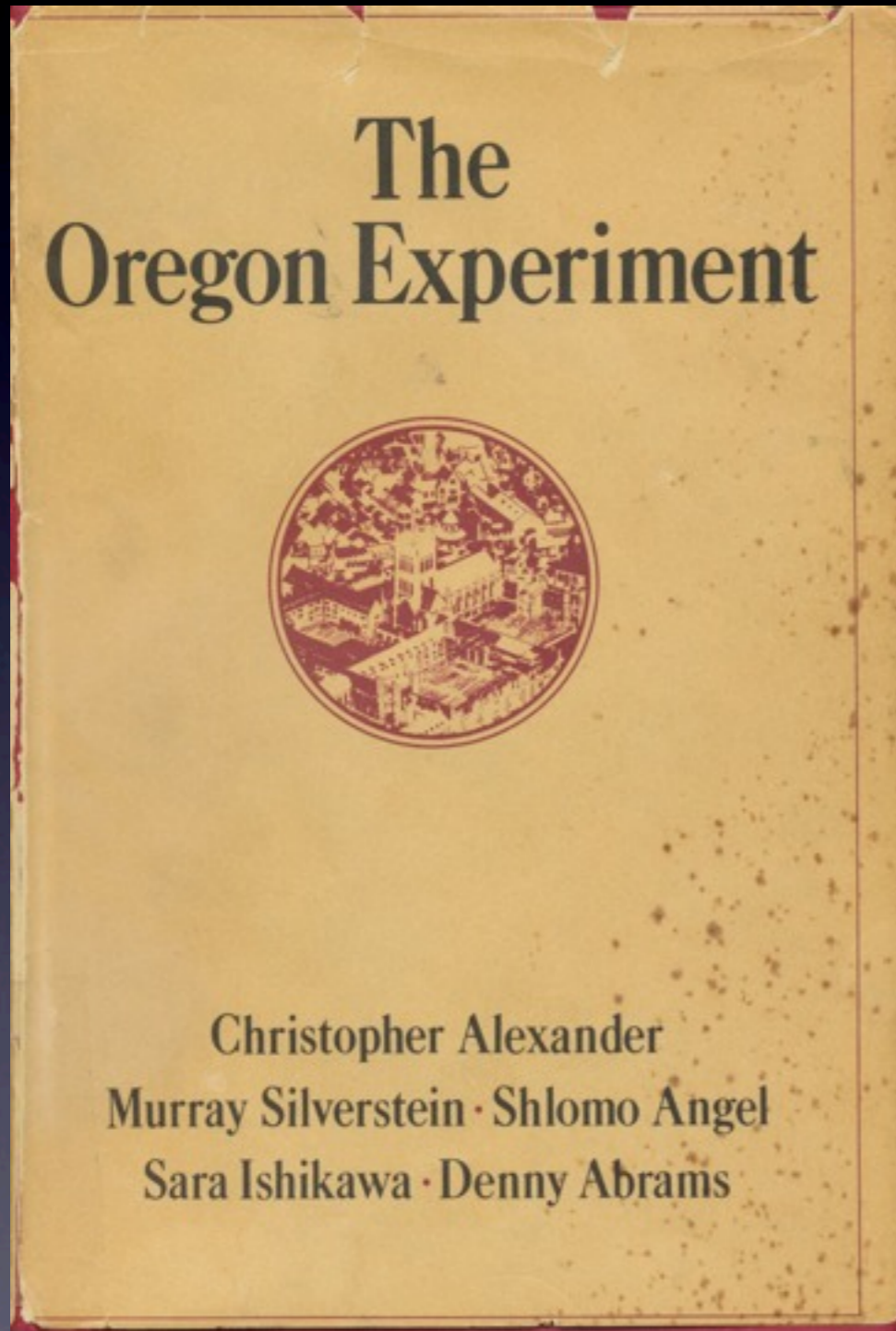
House Patterns

A PATTERN PROJECT LANGUAGE

Projects based on Patterns and Pattern Languages
Plus a Formulation of New Patterns for a Project

Peru Housing Project
Multi Center, NY
Oregon Master Plan
Mexicali Project
Portland Campus
etc

The University of Oregon Campus Plan Eugene - Oregon 1974 - Present



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The Oregon Experiment



Christopher Alexander
Murray Silverstein · Shlomo Angel
Sara Ishikawa · Denny Abrams

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PATTERNS

board, adopted on behalf of the university community, and then, in some fashion, backed by incentives so that individual projects help to make them appear. They are:

LOCAL TRANSPORT AREA	SHIELDED PARKING
NETWORK OF LEARNING	PATHS AND GOALS
IDENTIFIABLE	BIKE PATHS AND RACKS
NEIGHBORHOOD	PATH SHAPE
FOUR STORY LIMIT	PEDESTRIAN DENSITY
ACCESS TO WATER	PUBLIC OUTDOOR ROOM
MINI BUSES	OFFICE CONNECTIONS
PROMENADE	NUMBER OF STORIES
ACTIVITY NODES	BUILDING COMPLEX
LOOPED LOCAL ROADS	SITE REPAIR
T JUNCTIONS	TREE PLACES
PATH NETWORK	SOUTH FACING OUTDOORS
ROAD CROSSING	CONNECTED BUILDINGS
QUIET BACKS	MAIN GATEWAYS
ACCESSIBLE GREEN	MAIN ENTRANCE
SMALL PUBLIC SQUARES	FAMILY OF ENTRANCES
DEGREES OF PUBLICNESS	WINGS OF LIGHT
LOCAL SPORTS	POSITIVE OUTDOOR SPACE
SMALL PARKING LOTS	ARCADES

This list of 37 patterns is extremely general: It deals with problems of density, buildings, open space, roads, and paths. It does not deal with the specific problems that a university confronts. And yet, of course, these special university problems are

105

Patterns from the book
A Pattern Language

UNIVERSITY POPULATION
OPEN UNIVERSITY
STUDENT HOUSING DISTRIBUTION
UNIVERSITY SHAPE AND DIAMETER
UNIVERSITY STREETS
LIVING LEARNING CIRCLE
FABRIC OF DEPARTMENTS
DEPARTMENTS OF 400
DEPARTMENT SPACE
LOCAL ADMINISTRATION
STUDENT COMMUNITY
SMALL STUDENT UNIONS
PARKING SPACES
CLASSROOM DISTRIBUTION
FACULTY STUDENT MIX
STUDENT WORKPLACE
REAL LEARNING IN CAFES
DEPARTMENT HEARTH

106

Patterns specifically developed
for the Oregon Campus Plan

university of oregon design procedures

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CAMPUS PLAN May 31, 2005

*Universities are
extraordinary
places.*



Policy and Pattern Framework

This chapter describes the organization of the Plan's twelve policy chapters and defines the terms used within them. The next chapter, "Policies," summarizes the twelve policies. It is followed by the policy chapters, each of which sets forth policy refinements and patterns related to a specific policy.

The Plan is organized as follows:

POLICIES

Policies are adopted methods that describe how to apply the Plan's vision. They are expressions of the university's requirements with respect to the physical development of university properties. Examples of policies are "Policy 5: Replacement of Displaced Uses" and "Policy 8: Universal Access." Policies apply to all development projects, as described in "Policy 1: Process and Participation" on page 11.

POLICY REFINEMENTS

Policy refinements provide greater definition to each policy. They apply to all development projects, as described in "Policy 1: Process and Participation" on page 11. For example the policy refinements for the "Universal Access" policy describe specific design modifications to achieve maximum accessibility in new and remodeled facilities.

PATTERNS

Patterns are design statements that describe and analyze design issues and suggest ways in which those issues might be resolved. In addition to the patterns that are included in the Plan, new patterns addressing specific issues will be developed during the planning phase of individual projects (See "Policy 11: Patterns" on page 51).

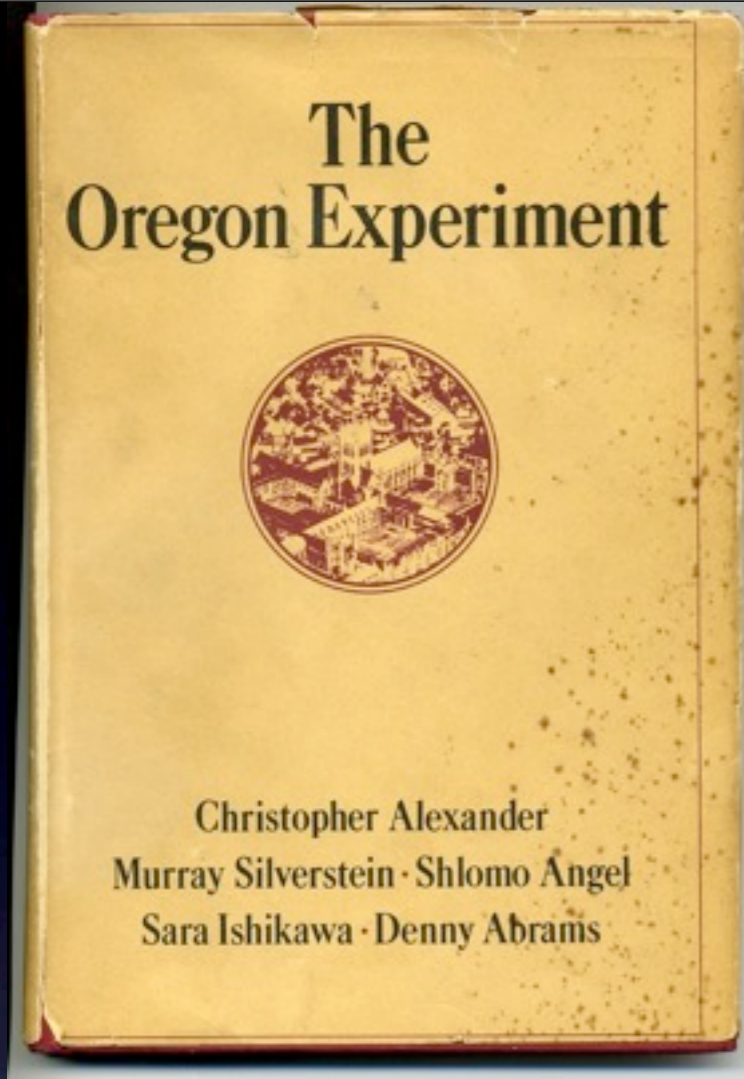


The University of Oregon Portland Urban Campus 2008 - Present

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Meiji University Tokyo Japan

November - 2010



PATTERNS

board, adopted on behalf of the university community, and then, in some fashion, backed by incentives so that individual projects help to make them appear. They are:

LOCAL TRANSPORT AREA	SHIELDED PARKING
NETWORK OF LEARNING	PATHS AND GOALS
IDENTIFIABLE	BIKE PATHS AND RACKS
NEIGHBORHOOD	PATH SHAPE
FOUR STORY LIMIT	PEDESTRIAN DENSITY
ACCESS TO WATER	PUBLIC OUTDOOR ROOM
MINI BUSES	OFFICE CONNECTIONS
PROMENADE	NUMBER OF STORIES
ACTIVITY NODES	BUILDING COMPLEX
LOOPED LOCAL ROADS	SITE REPAIR
T JUNCTIONS	TREE PLACES
PATH NETWORK	SOUTH FACING OUTDOORS
ROAD CROSSING	CONNECTED BUILDINGS
QUIET BACKS	MAIN GATEWAYS
ACCESSIBLE GREEN	MAIN ENTRANCE
SMALL PUBLIC SQUARES	FAMILY OF ENTRANCES
DEGREES OF PUBLIC	
LOCAL SPORTS	
SMALL PARKING	

This list of 30 deals with problems of space, roads, and specific problems, yet, of course, the

UNIVERSITY POPULATION
 OPEN UNIVERSITY
 STUDENT HOUSING DISTRIBUTION
 UNIVERSITY SHAPE AND DIAMETER
 UNIVERSITY STREETS
 LIVING LEARNING CIRCLE
 FABRIC OF DEPARTMENTS
 DEPARTMENTS OF 400
 DEPARTMENT SPACE
 LOCAL ADMINISTRATION
 STUDENT COMMUNITY
 SMALL STUDENT UNIONS
 PARKING SPACES



New Portland Patterns:
 Abundant Natural Light
 An Atrium for Architecture and Allied Arts
 Prominent Main Entry
 A Street Presence
 Galleries, Event Rooms, and a Cafe
 Studios as Social Classrooms
 Generous Hallways and Lobbies

university of oregon design procedures

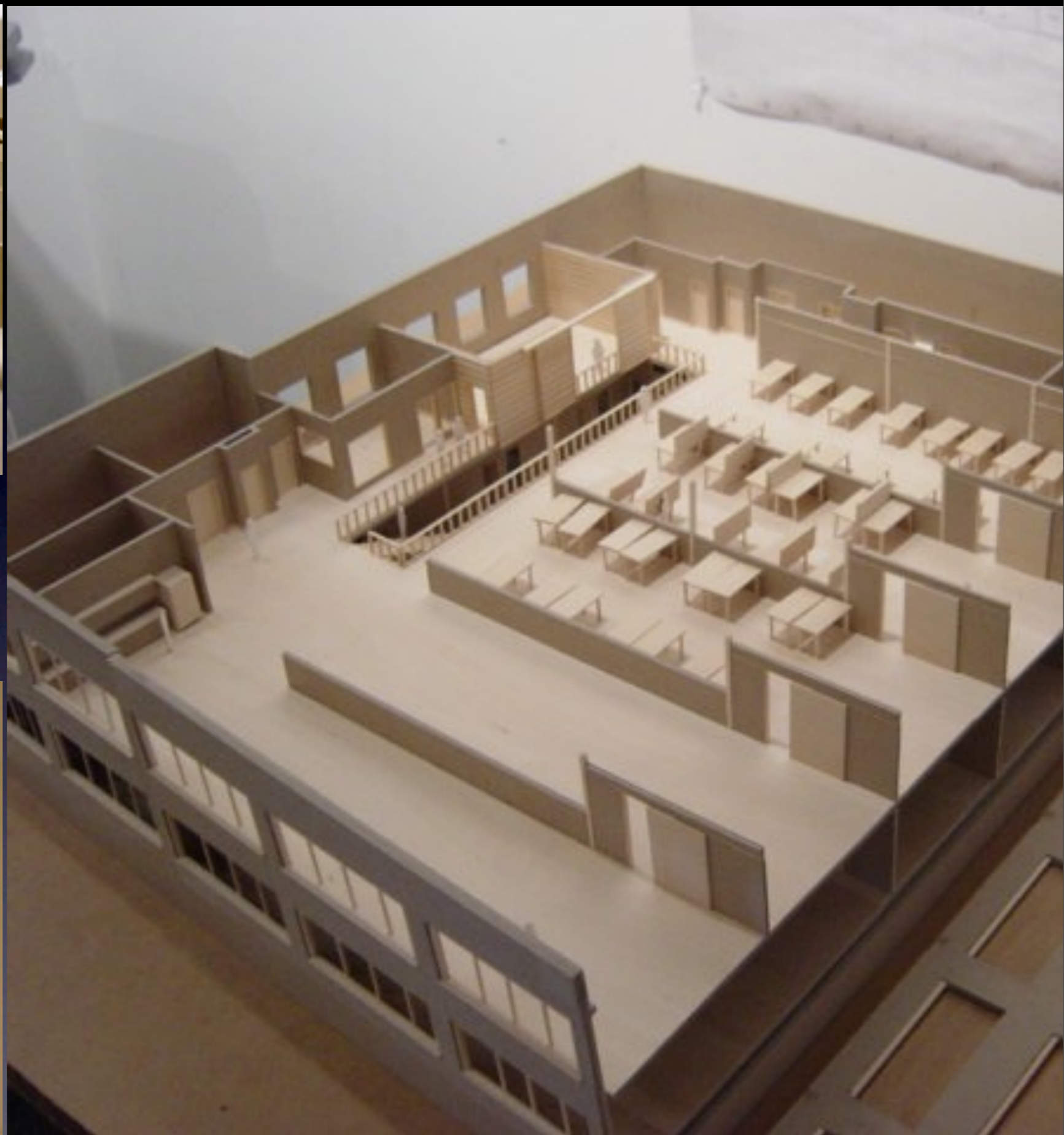
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interiors and furniture



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New White Stag Urban Campus - University of Oregon Portland

A PROJECT LANGUAGE

Based on Visions, Concrete Imaginations, Projects, and Patterns

Eishin Campus Project Language

Neustadt Project Language

Sakura Tsutsumi

etc

The Eishin Highschool and College Campus in Tokyo - Japan 1983- Present



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Principle Participation: All teachers, administrators, staff and a number of students are involved in the design process.

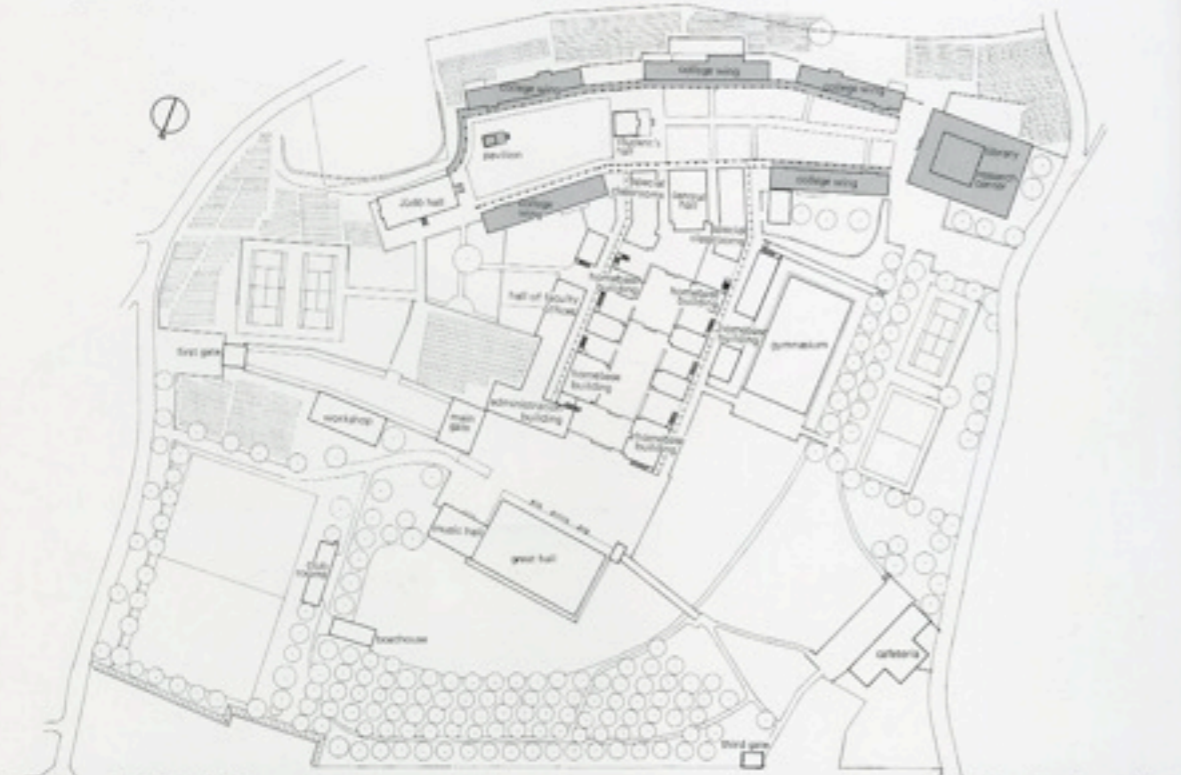


Principle: Patterns and Pattern Language

Data
 location: Inuma, Saitama Prefecture
 architects and engineers:
 C.E.S. (Center for Environmental Structure)
 C. Alexander/H. Neis/J.F.-King/G. Black/Artemis
 Anninos/Ken Peterman/Nevil Mathias/Astrid
 Chwioka/Kazuhiko Kasai
 staffs of C.E.S. JAPAN
 Torashichi Sumiyoshi/Minoru Nishida/Hiroshi
 Nakano/Takeshi Ishikubo/Tamio Shiohara/
 Toshiko Sasaki
 mechanical engineers and general contractor:
 Fujita Corporation
 site area: 62,123m²
 building area: 5,606m²
 total floor area: 9,061m²
 (homebase buildings)
 buildings area: 1,499m²

total floor area: 2,446m²
 structure: reinforced concrete; 2 stories
 (central hall)
 total floor area: 236m²
 structure: wood; 1 story
 (administration)
 building area: 271m²
 total floor area: 543m²
 structure: block (1st floor) and wood (2nd
 floor); 2 stories
 (main gate)
 building area: 173m²
 total floor area: 463m²
 structure: reinforced concrete; 3 stories
 (gymnasium)
 building area: 672m²
 total floor area: 1,134m²

structure: wood and partly reinforced concrete;
 2 stories
 (great hall)
 building area: 845m²
 total floor area: 1,686m²
 structure: steel frame; 3 stories
 (Judo hall)
 building area: 233m²
 total floor area: 233m²
 structure: wood; 1 story
 (dining hall)
 building area: 352m²
 total floor area: 401m²
 structure: wood; 2 stories
 completion date: August, 1985
 photos: Hiroshi Kobayashi, Photo Dept., JA



The pattern language consists of the following eight sections.

1. The Global Character
2. The Inner Precinct
3. The Buildings of the Inner Precinct
4. The Streets of The Inner Precinct
5. The Outer Precinct
6. The Internal Structure of the Main Buildings
7. The Special Details of the Exterior
8. Interior Building Character

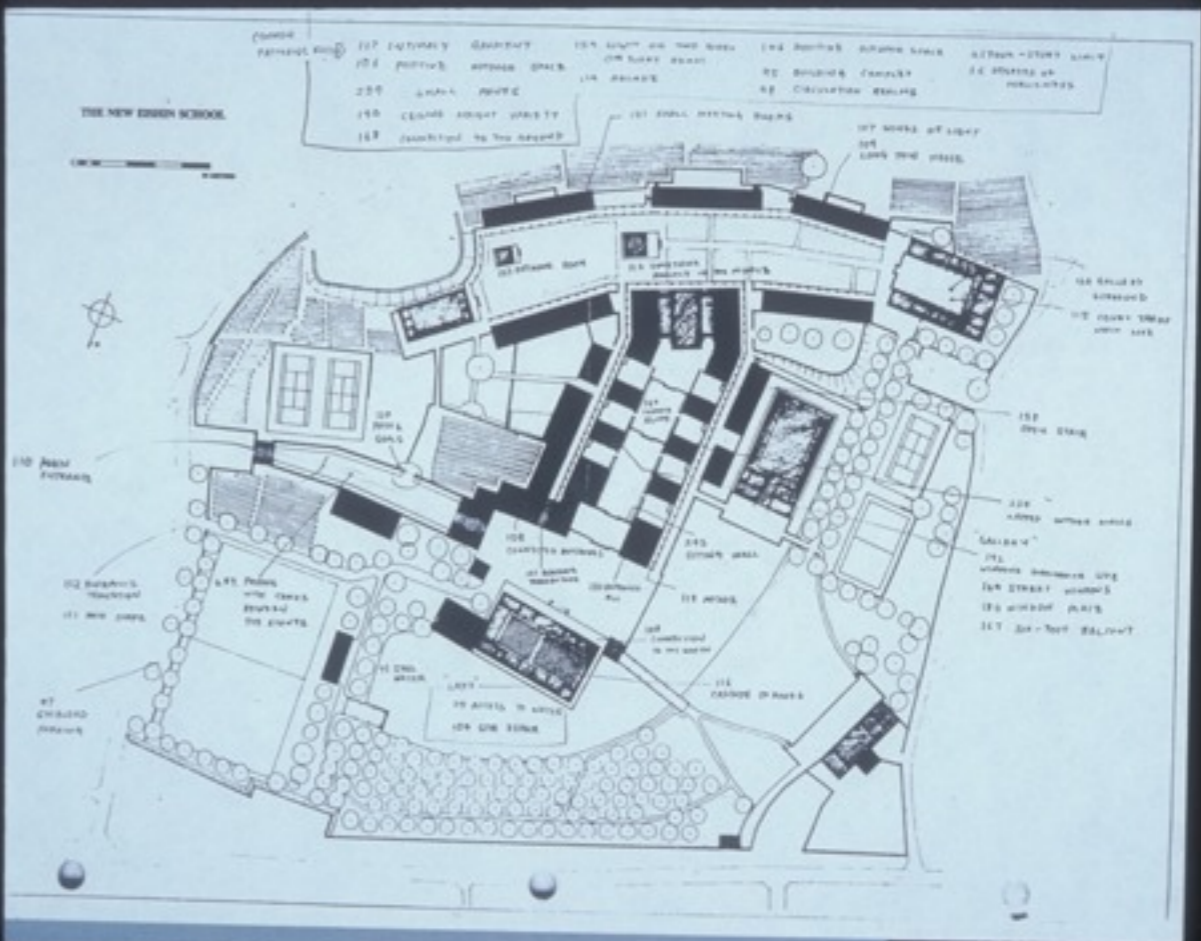
The following text shows the summary covering the section 1, 2, 3 and 8.

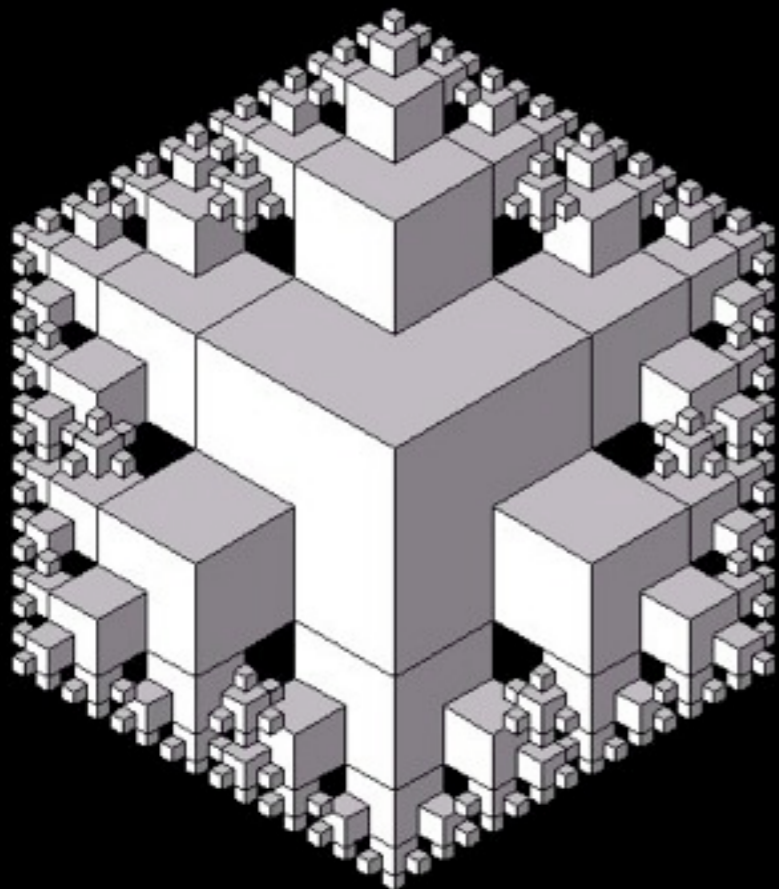
1. THE GLOBAL CHARACTER

1. The buildings and the site are given their character by stone foundation walls, wood columns, white walls, a few special places with red lacquered wood, wide overhanging roofs, dark roof surfaces, stones and grass on the ground.
2. There is an outer boundary which surrounds the site.
3. Inside the outer boundary, there is an inner boundary which surrounds a smaller area; about one-fifth of the whole site.
4. The area inside the inner boundary is

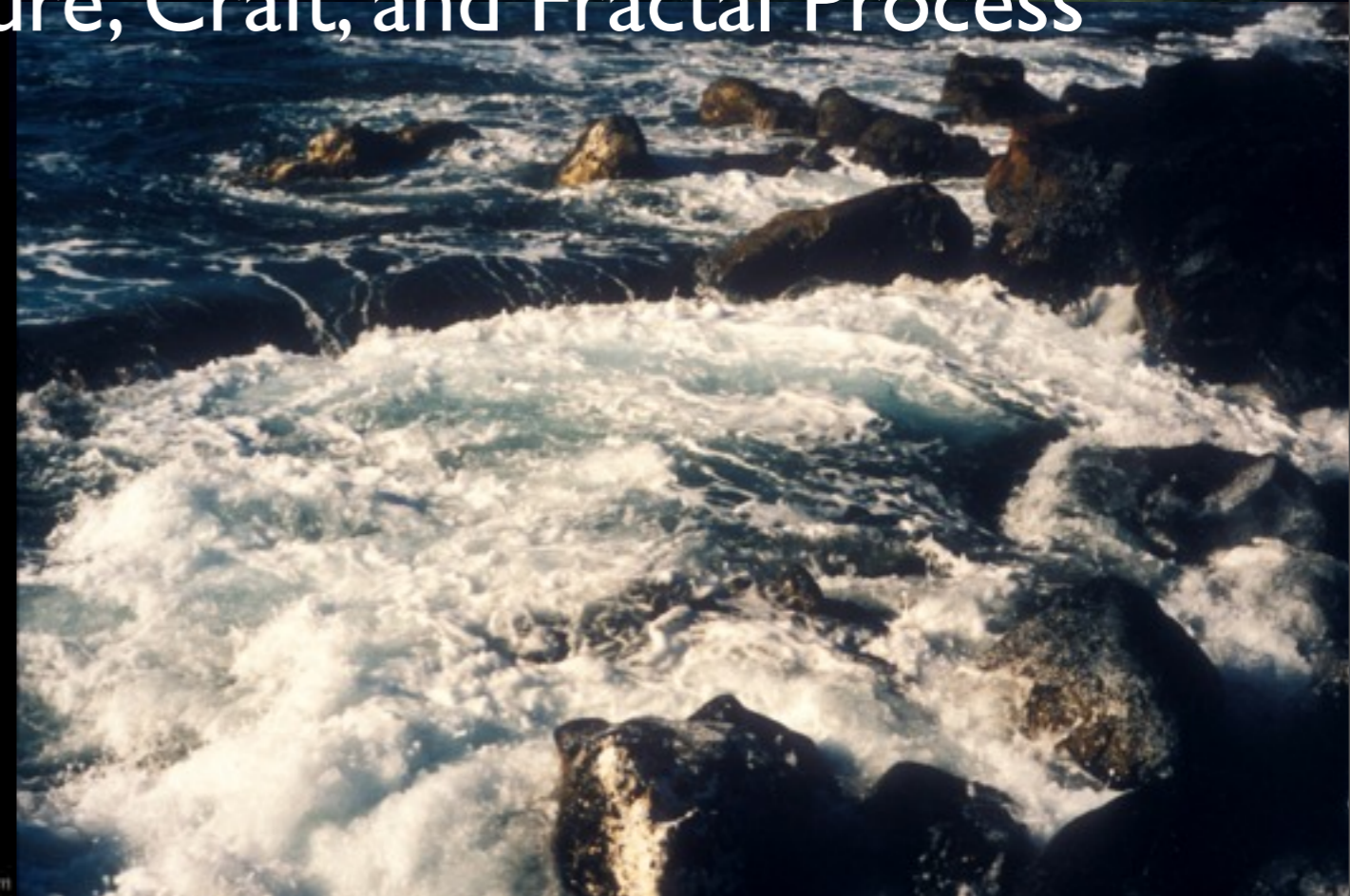
8. This essential center is fairly large— itself a world, bounded, within the inner precinct and formed by paths and gates. This essential center contains a large part of the high school, and a large part of the university.
9. Since the essential center, is at one and the same time, the heart, and cross-roads of the school and university, it has the rough form of a cross—formed by crossing paths. Because it resembles the Japanese character *ra* (田), we have therefore named it the *ra-no-ji* center.
10. At the crossing of the streets and paths which form the *ra-no-ji* center, there is a smaller center: this place is the *kernel* of the busy part of the *ra-no-ji* center.
11. And, opening from the far side of the *ra-no-ji* center, is a higher, and most peaceful place—we call the college cloister. This is the inner sanctum of the university, and the most peaceful place of all. It is chosen to be in a place which invites contemplation.
12. Also opening directly from the *ra-no-ji* center, is the homebase street. The homebase street is a wide, lively, sunny street formed by the individual homeroom buildings where the

- ings include the *judo* hall, a small gymnasium, clubrooms, smaller classrooms and lecture halls.
7. The buildings which form the homebase street, are the individual homeroom buildings. Each of these buildings is two storeys high, and has one classroom on each floor, the upper one with its own staircase leading to the ground.
8. Opening off the homebase street, the large gymnasium is placed to form a major center. Under some circumstances, this major center might move out into the outer precinct.
9. The secondary center of the homebase street, is the faculty hall, which stands somewhere near the middle of the street, as easily accessible to all the homerooms as it can be.
10. The buildings which form the college cloister, are the research buildings for the college faculty. These are buildings where intensive discussion about the problem of local government, and research, take place.
11. The main center of the college cloister is the library. It stands two storeys high, with the main reading room on





Geometry created by Nature, Craft, and Fractal Process



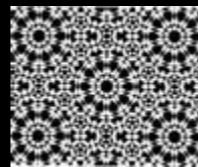
Language of Centers

15 Properties of Natural Morphology

1. Levels of scale



2. Strong centers



3. Boundaries



4. Alternating Repetition



5. Positive Space



6. Good shape



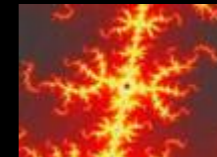
7. Local Symmetries



8. Deep Interlock and Ambiguity



9. Contrast



10. Gradients



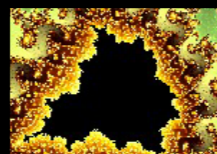
11. Roughness



12. Echoes



13. The Void



14. Simplicity and inner calm



15. Not-separateness



Levels of Scale



Strong Centers



Boundaries



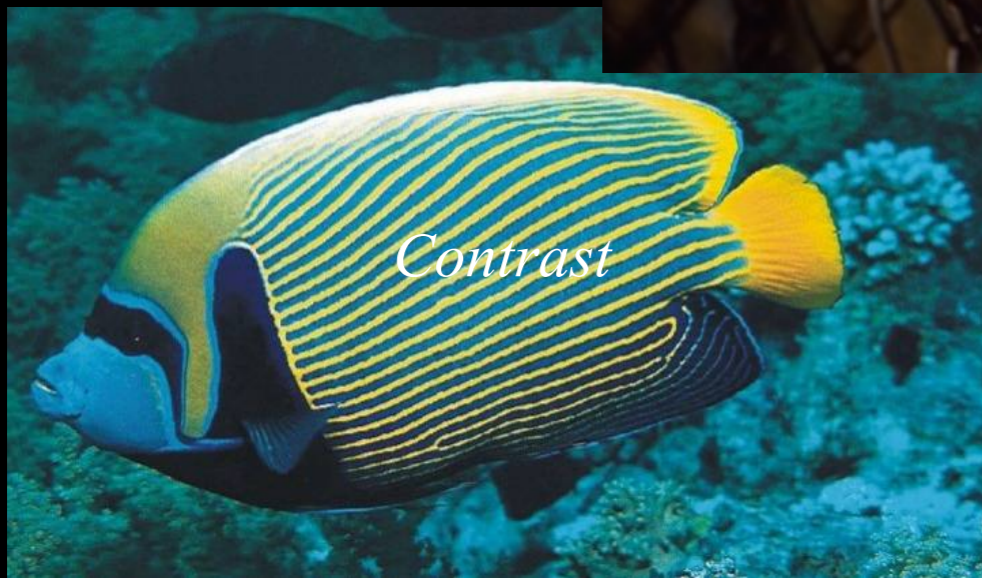
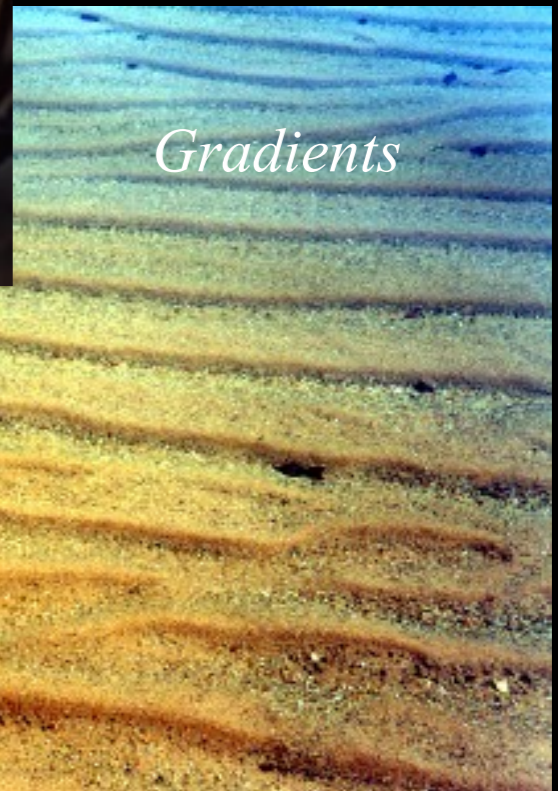
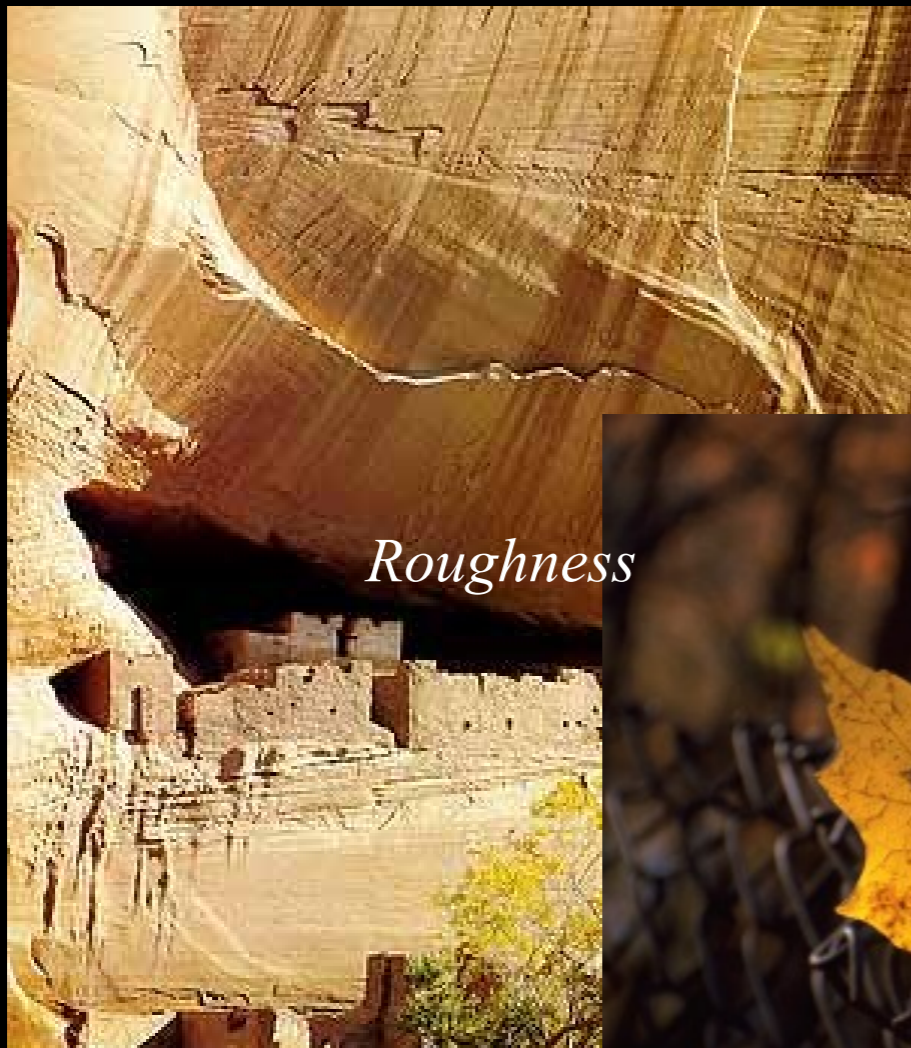
Alternating Repetition



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ARCHITECTURAL PROCESS

Based on Pattern Language, Language of Centers, and Adaptation as Process

Eishin Campus Project
Emoto Apartment Building
Sakura Tsutsumi
etc

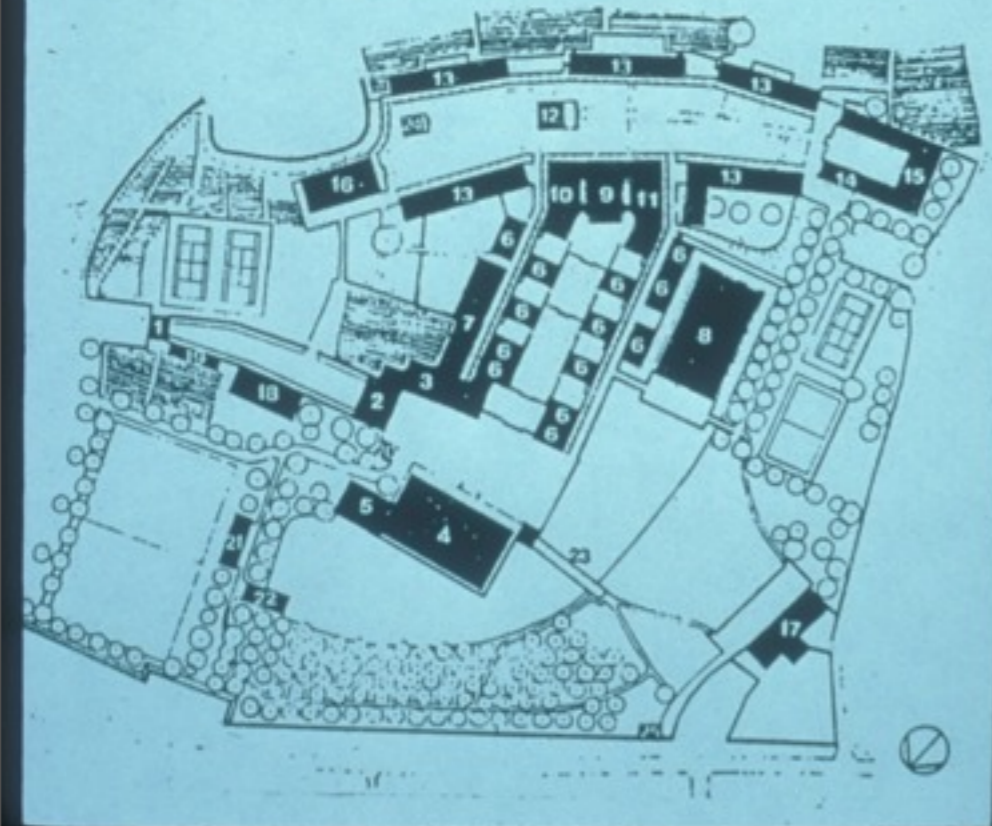
Process of Adaptation in a Project largely
depends on the Application of
the Language of Centers or Geometry



The Eishin Highschool and College Campus in Tokyo - Japan 1984- Present



CES: Eishin Campus - Japan



Formation of Site Plan: Staking out the Site





Contiuous Design and Construction





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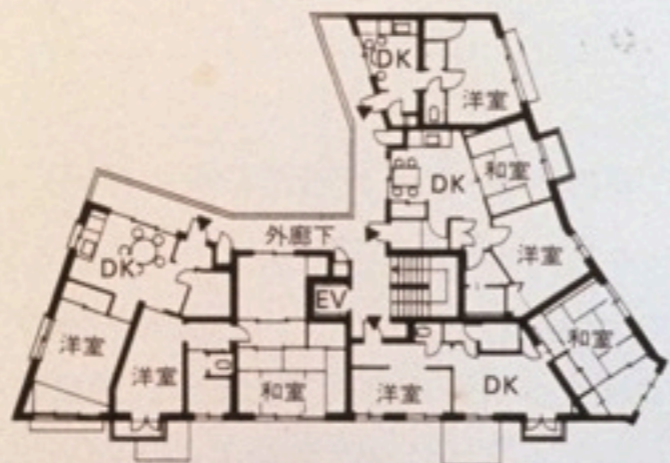
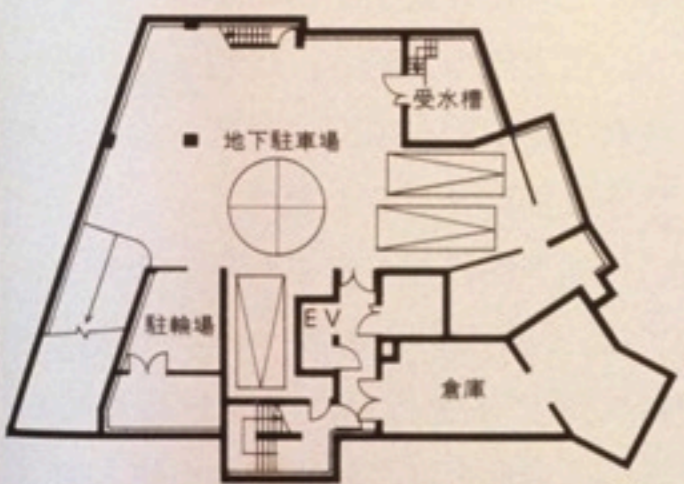
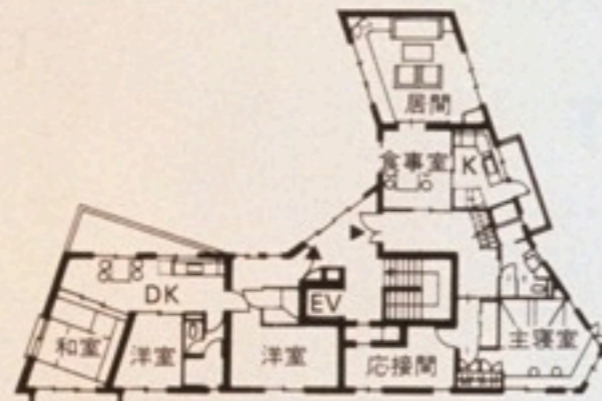
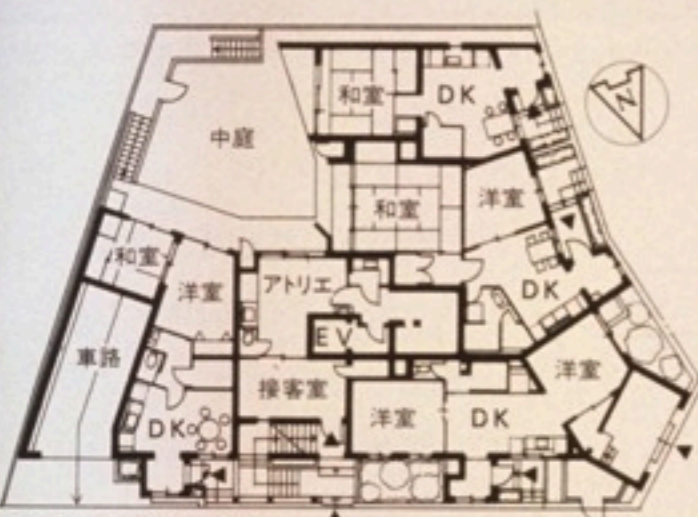
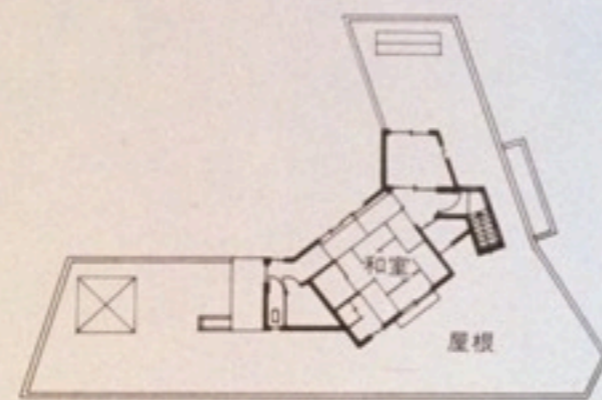
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Emoto Condo and Apartment Building in Tokyo Komagome



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The Patterns of Patterns - Pattern Language and Beyond

MICC Experten/innen-Workshop, November 2010

Beyond Patterns: From Pattern Language to the Language of Centers

Patterns and A Pattern Language

- A. New Developments of Patterns and Adaptation as Archetype
- B. Patterns for Projects based on the book A Pattern Language APL

A Pattern Project Language

Based on APL plus the Formulation of a Set of new Patterns

A Project Language

Based on Visions, Concrete Imaginations, Projects, and Patterns

A Center Language

Based on Fifteen Geometrical Properties of Natural Morphology

Architecture Process and Projects

Based on Pattern Language, Language of Centers, and Adaptation as Process

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Overriding Principles

Wholeness

Growing Whole and **Adaptation**

Wholeness in the Structure of the City

The City as a Growing Whole

Sustainability

Primary Principles

Organic Order

Piecemeal Growth

Participation

Patterns and Pattern Languages

Structure Preserving Transformations

Formation of Centers and Fields of Centers

Formation of Larger Wholes

Formation of Positive Urban Open Space

Centers and Geometrical Properties

Application of Color Properties

Generative Design and Building Sequences

Integrated Design and Construction

Other Principles and Techniques

Diagnosis and Coordination

Working Directly with the Building or Urban Area

Staking out the Site

Primary Responsibility to the Building

Innovation through Building

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Vielen Dank

**For more information on the award-winning Berkeley based
Organization: Center for Environmental Structure:**

<http://www.patternlanguage.com>

For more information on the Portland Urban Architecture Laboratory:

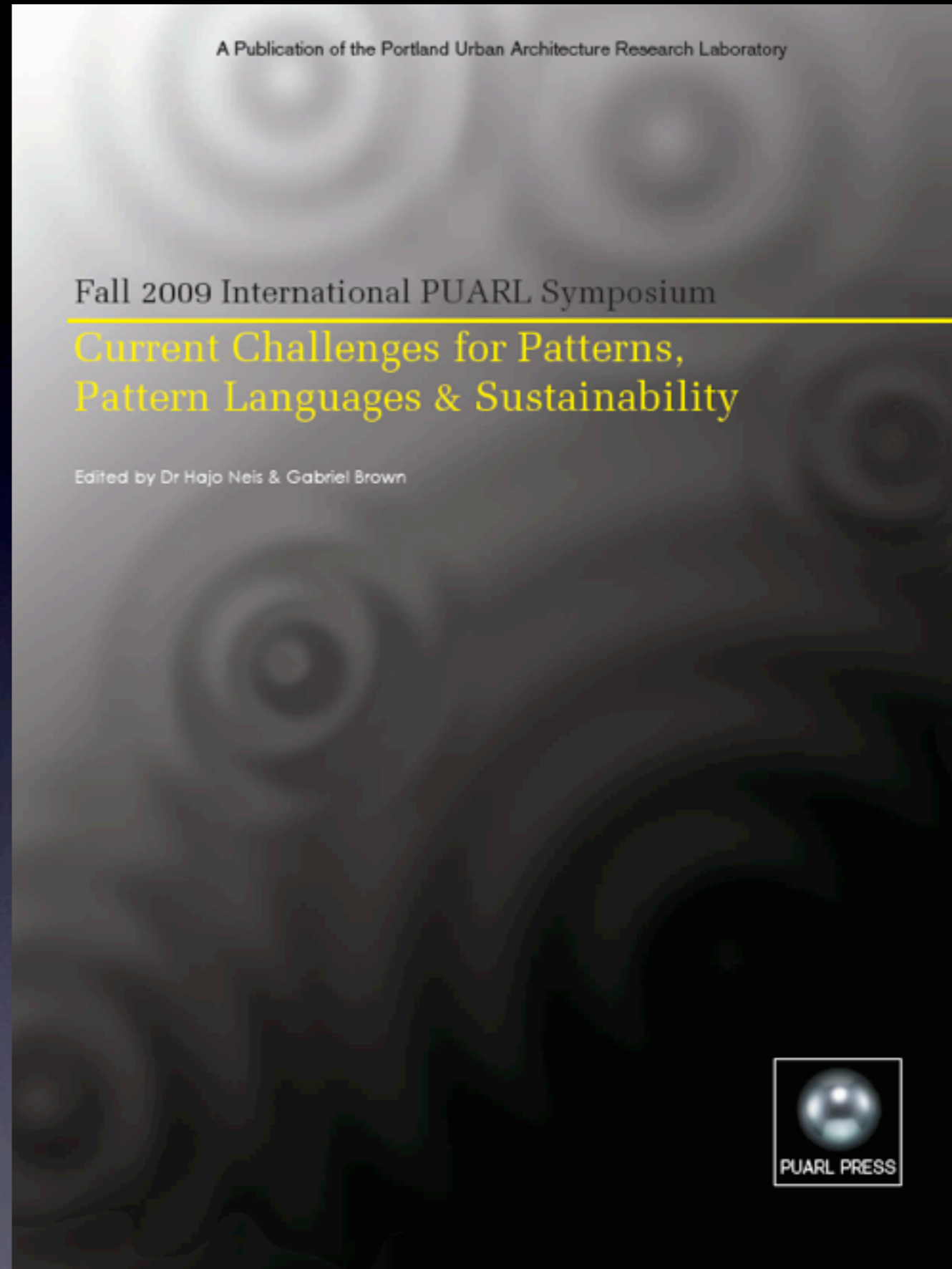
<http://puarl.uoregon.edu>

Contact:

hajoneis@uoregon.edu

Next PUARL Conference on Patterns and Process in Portland - Oregon October 2011

Stay Tuned



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