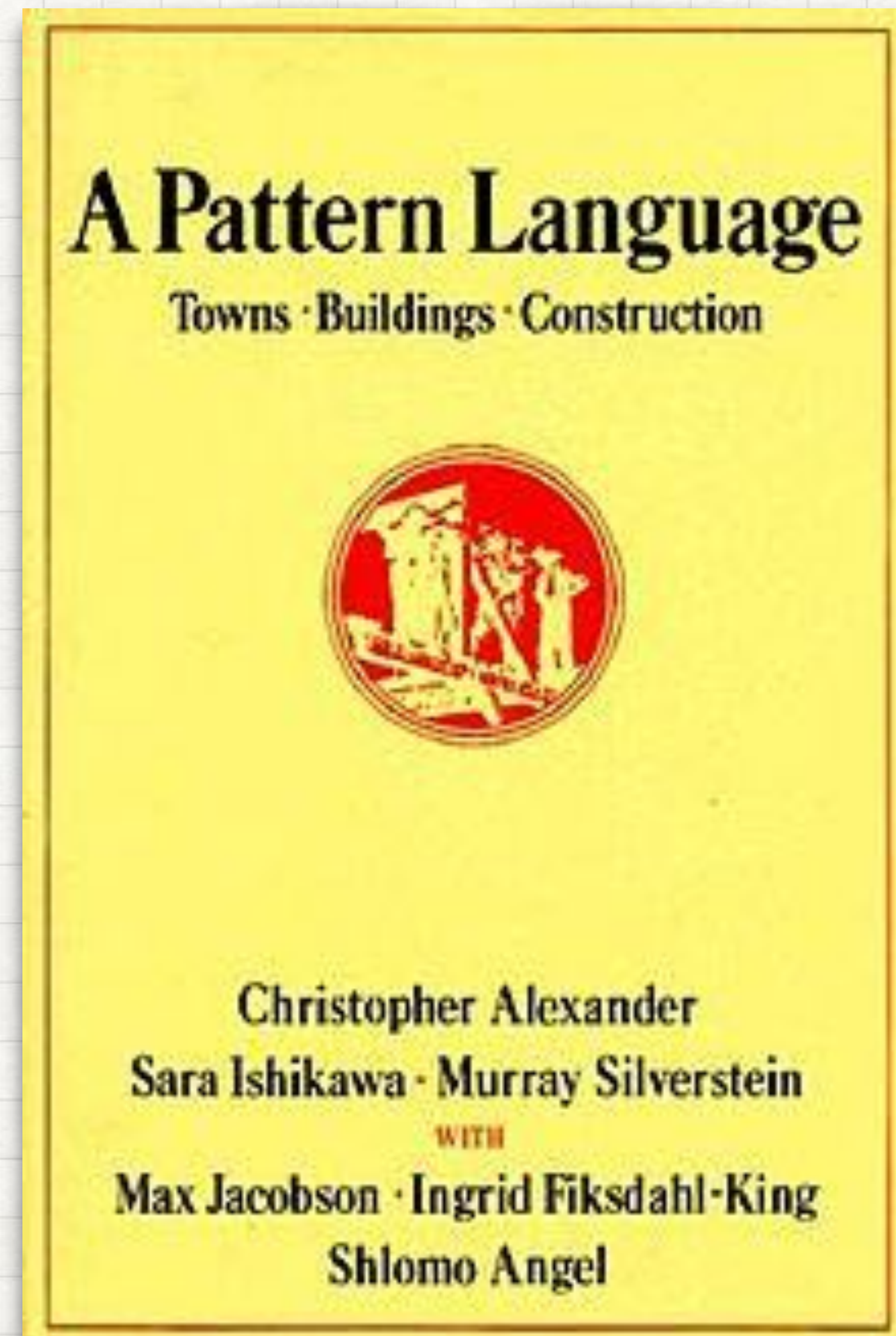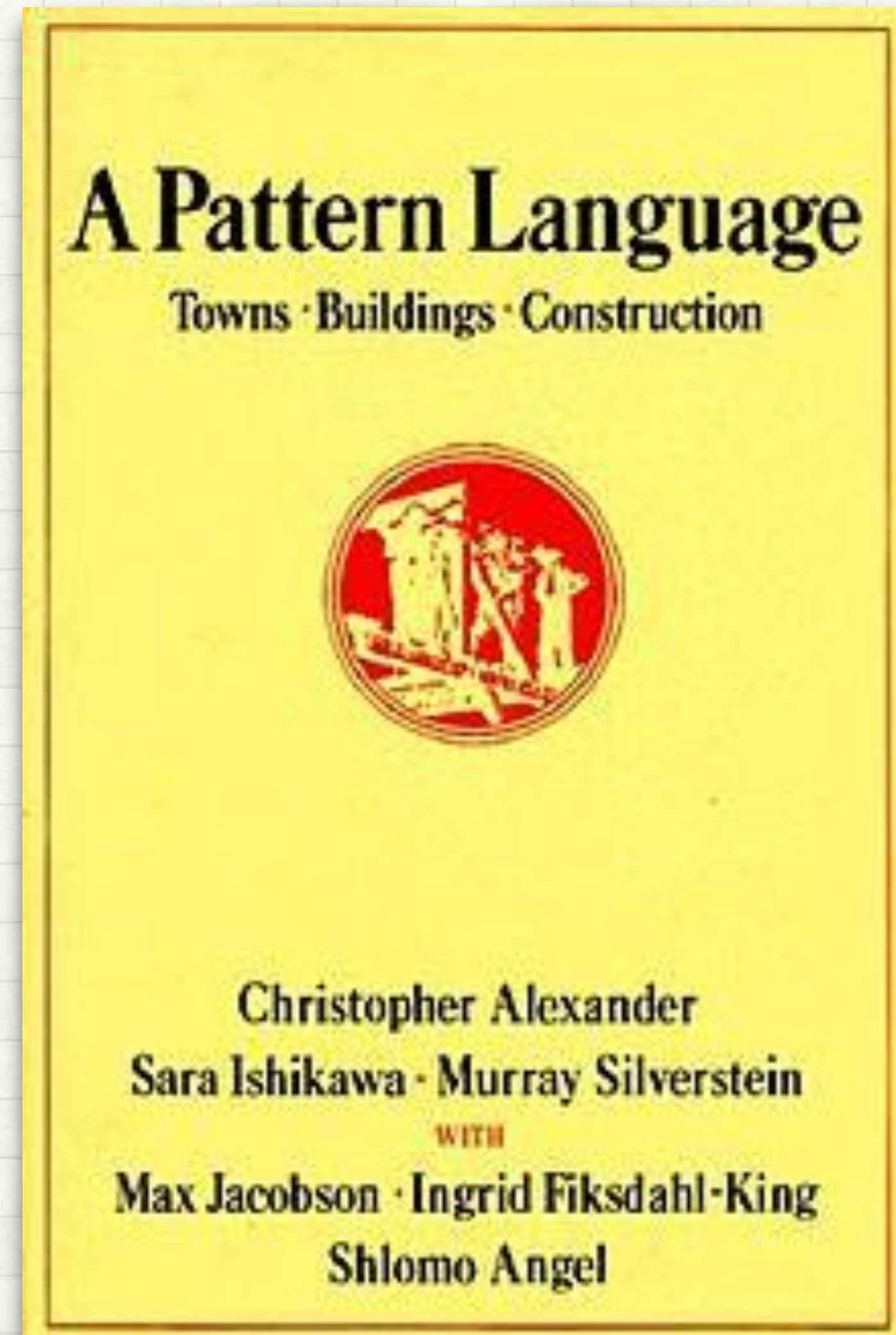# Historia

ARCHITECTURE PATTERN

- Christopher Alexander

- "A pattern language: Towns, Building, Construction" 1977

- Captura problemas esenciales, intemporales y plantea soluciones

- Intenta formar un lenguaje interrelacionado

- Influencia relativa en arquitectura ... ¡pero muy influyente en programación!

- Pattern language:

  - vocabulario

  - gramática (o morfologia): forma individual de cada palabra

  - sintaxis: formas de las construcciones, función en el todo.

A Pattern Language
Towns · Buildings · Construction

Christopher Alexander
Sara Ishikawa · Murray Silverstein
WITH
Max Jacobson · Ingrid Fiksdahl-King
Shlomo Angel

Vocabulario

Sintáxis

. . . the fundamental unit of organization within the neighborhood - IDENTIFIABLE NEIGHBORHOOD (14) - is the cluster of a dozen houses. By varying the density and composition of different clusters, this pattern may also help to generate DENSITY RINGS (29), HOUSEHOLD MIX (35), and DEGREES OF PUBLICNESS (36).
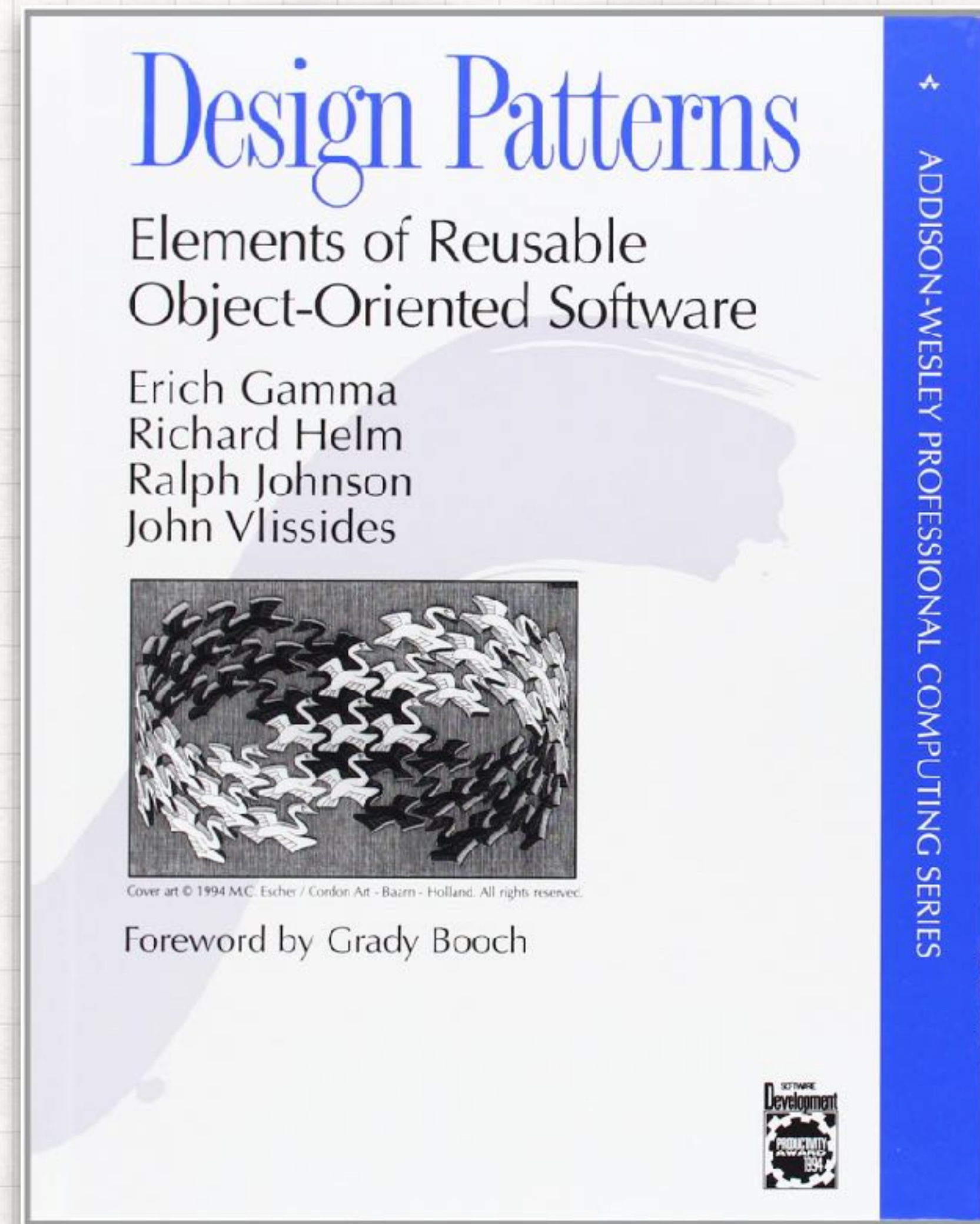
Gramática

People will not feel comfortable in their houses unless a group of houses forms a cluster, with the public land between them jointly owned by all the householders.

Therefore:

Arrange houses to form very rough, but identifiable clusters of 8 to 12 households around some common land and paths. Arrange the clusters so that anyone can walk through them, without feeling like a trespasser.
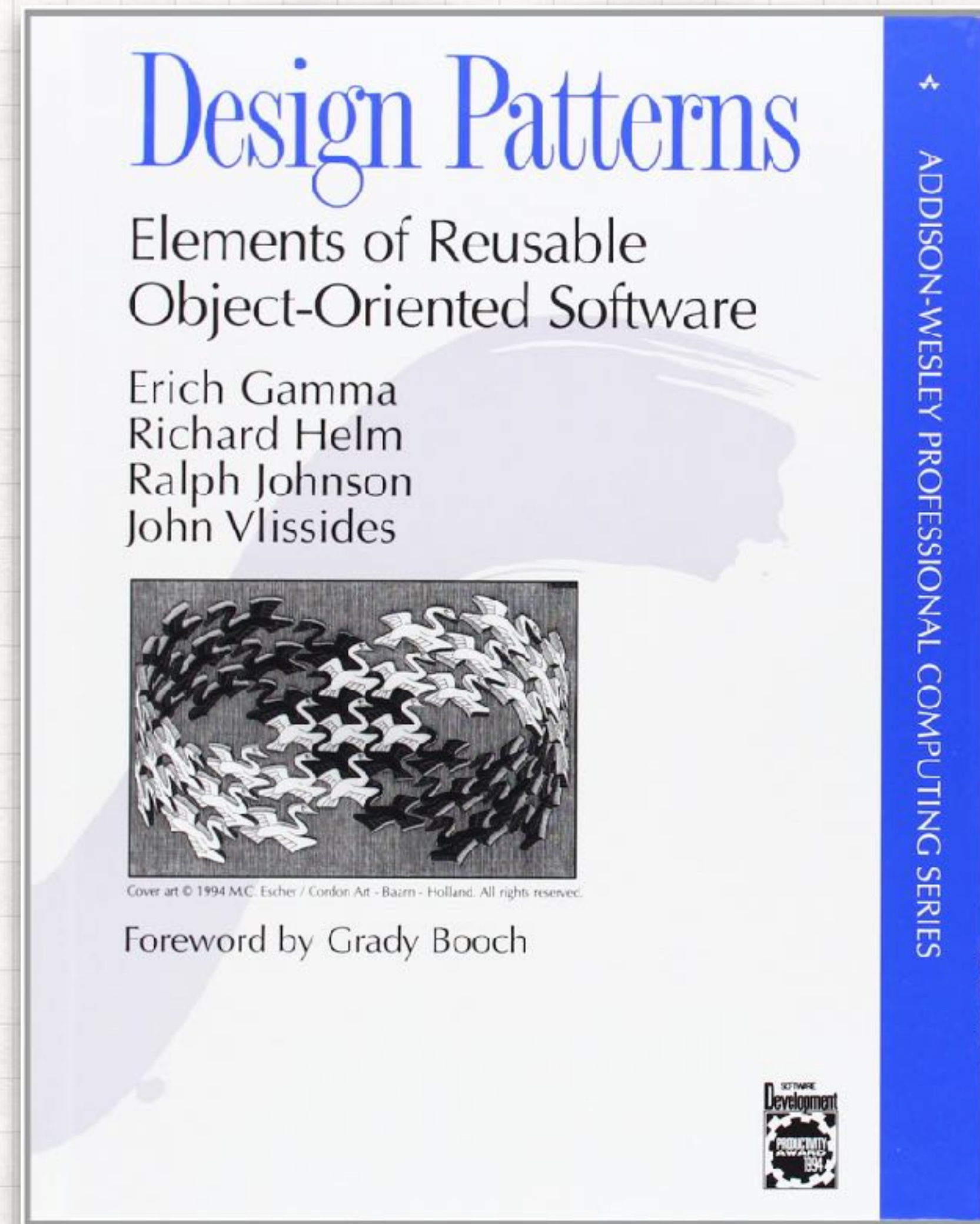
¿PATTERN LANGUAGE EN SOFTWARE?

- 1987 Kent Beck y Ward Cunningham: ¿aplicable al software?

- 1994: Design patterns: Elements of Reusable Object-Oriented Software

  - Erich Gamma

  - Richard Helm

  - Ralph Johnson

  - John Vlissides
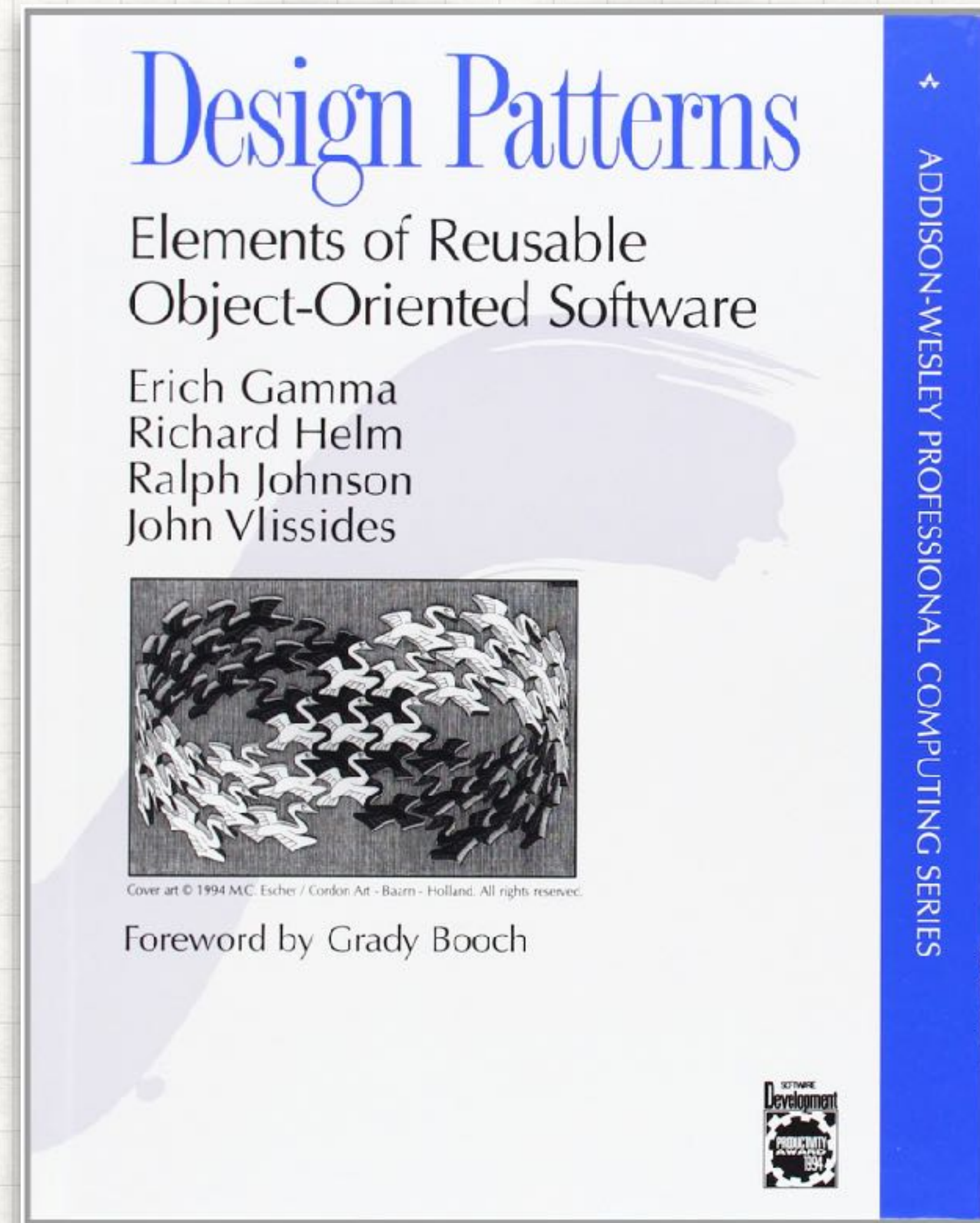
  - a.k.a. Gang of Four -.- GoF

DESIGN PATTERNS: ELEMENTS OF REUSABLE OBJECT ORIENTED SOFTWARE

- Ejemplos en C++ y Smalltalk

- Catálogo de 23 soluciones "generales"

- Divididas en 3 categorías:

  - Creación

  - Estructura

  - Comportamiento

DESIGN PATTERNS: ELEMENTS OF REUSABLE OBJECT ORIENTED SOFTWARE

- Intent
- Also Known As
- Motivation
- Applicability
- Structure
- Participants
- Collaborations
- Consequences
- Implementation
- Sample Code
- Known Uses
- Related Patterns

Creational	Structural	Behavioral
• Abstract factory pattern • Builder pattern • Factory method pattern • Prototype pattern • Singleton pattern	• Adapter • Bridge • Composite • Decorator • Facade • Flyweight • Proxy	• Chain of responsibility • Command • Interpreter • Iterator • Mediator • Memento • Observer • State • Strategy • Template method • Visitor

Historia