

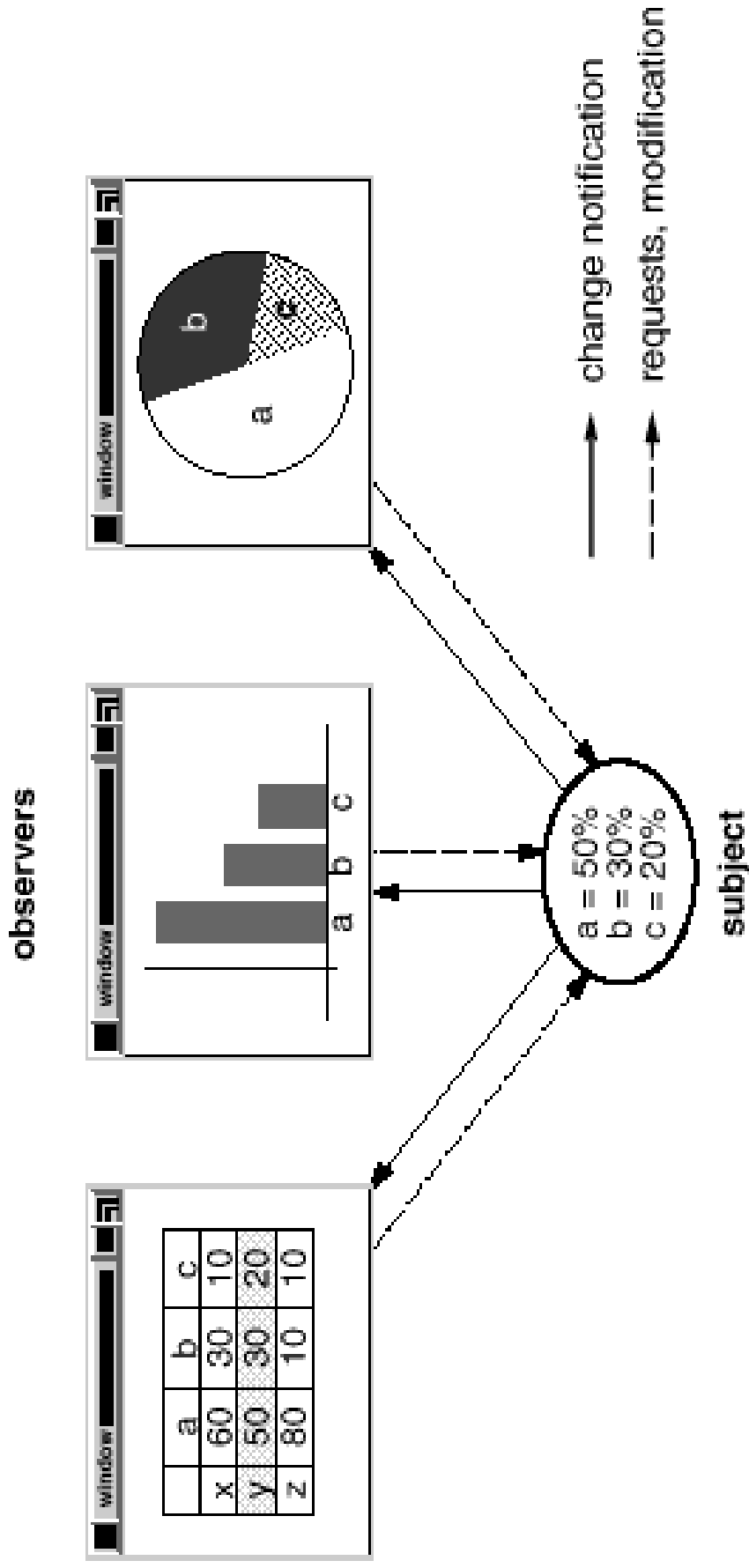
Erfahrungen mit Entwurfsmustern in der industriellen Praxis

Dirk Riehle

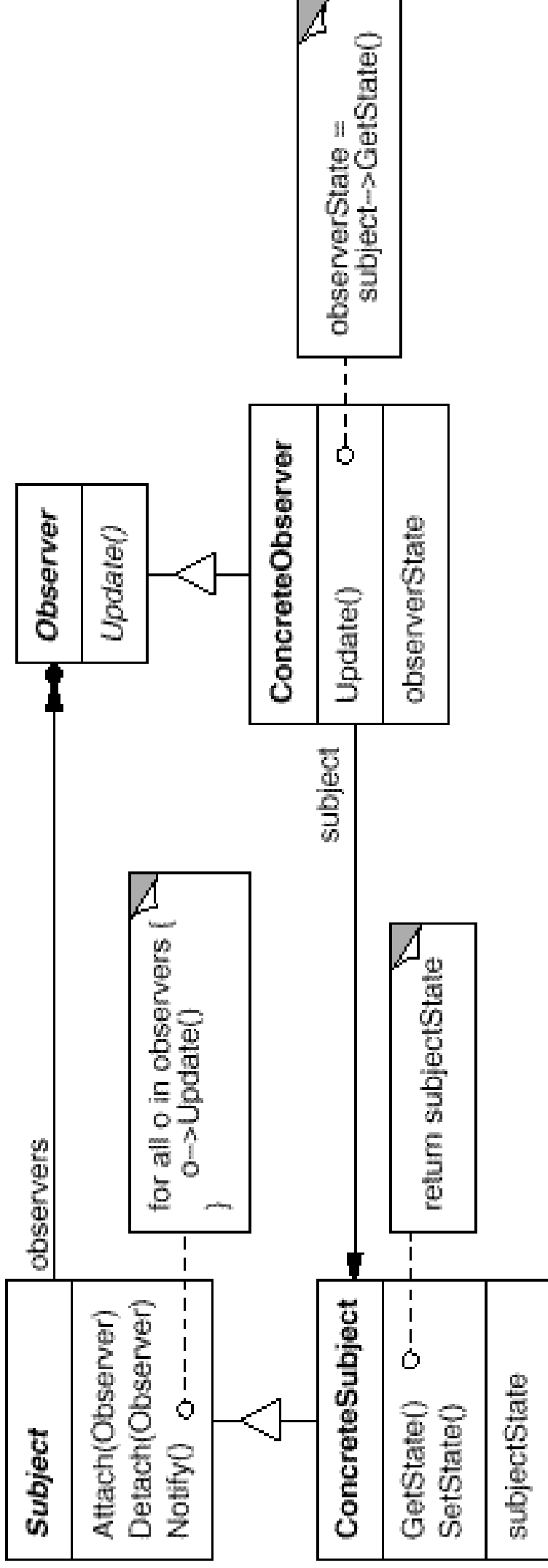
Bayave Software GmbH

Entwurfsmuster

Definition: Abstraktion von wiederkehrenden Problemlösungen in bestimmtem Kontexten



Beobachtermuster



Aus: Erich Gamma et al. Design Patterns,
Observer Pattern, Structure Diagram

Einsatzformen

- Kommunikation (am Whiteboard)
- Entwurfsdokumentation
- Implementierung (gedankliche Schablone)
- Code-Generierung (aus form. Schablone)

Muster, Schablone, Entwurf

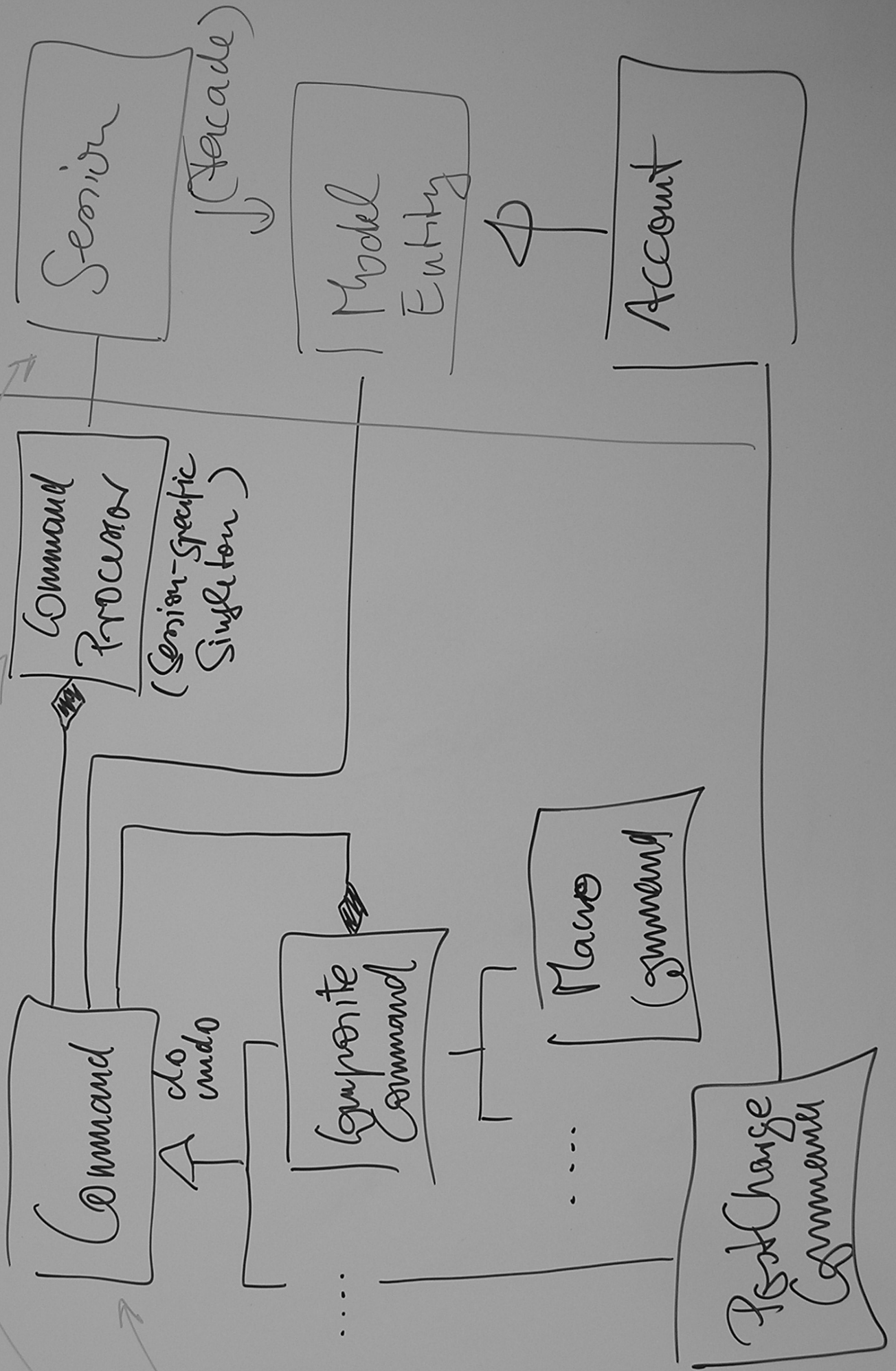
- Entwurfsmuster = Abstrakte Idee
 - Viele Formen, viel Freiraum
- Schablone = Spezifische abstrakte Form
 - Gut für Entwurfs- und Code-Generierung
- Entwurf/Design = Ergebnis des Prozesses

Naive Anwendung

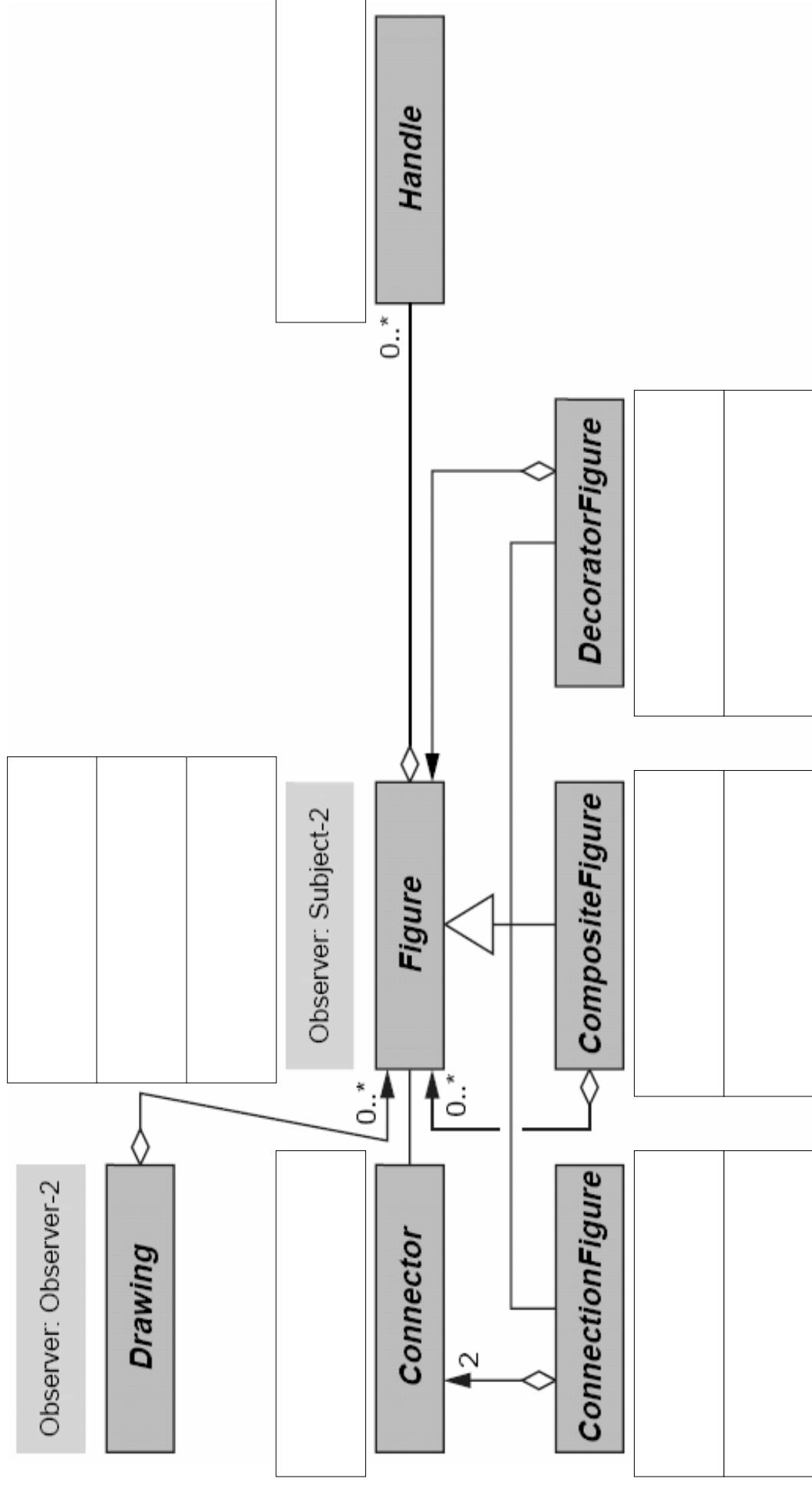
- **Muster, überall Muster!!**
 - Nicht alles muss ein Muster sein
 - Nicht alles, was Muster ist, muss gut sein
- **1-zu-1 Übertragung aus dem Buch**
 - Insb. Struktur und Namensgebung
 - Entwurfsmusterbuch ist Hilfe, nicht Bibel

Beispiel: Kommunikation

Dispatcher ↓



Beispiel: Dokumentation



Beispiel: Implementierung

Package Explorer Hierarchy

- AbstractValue.java
- AbstractValueManager.java
- AbstractValueReader.java
- AbstractValueType.java
- AbstractValueWriter.java
- Attribute.java
- DataStringReaderWriterCons
- DataStringValueReader.java
- DataStringValueWriter.java
- GenericEnumValue.java
- GenericEnumValueSerializer.j
- GenericEnumValueType.java
- GenericRange.java
- GenericRangeBound.java
- GenericValueType.java
- InMemorySerializer.java
- IntrangeBound.java
- LoggingValueManager.java
- NullValueManager.java
- SimpleSharingValueManager.
- StandardValueManager.java
- StandardValueType.java
- StringEnumValue.java
- ValueData.java
- ValueUsageInfo.java
- org.jvalue.value.name
- org.jvalue.value.name.tests
- org.jvalue.value.primitive
- org.jvalue.value.primitive.tests
- org.jvalue.value.tests
- AbstractGenericRangeBound
- AbstractGenericRangeTest.j
- AbstractRangeTest.java

ValueReader.java

```

/**
 * A ValueReader reads a Value from an unspecified backend.
 * The framework provides some simple implementations of the ValueReader interface.
 * Clients of the framework are free to provide their own implementations.
 */
@pattern Serializer
public interface ValueReader {
    /**
     * Reads primitive value.
     *
     * @return boolean readBoolean(String name) throws ValueReaderException;
     * @return byte readByte(String attributeName) throws ValueReaderException;
     * @return char readChar(String attributeName) throws ValueReaderException;
     * @return double readDouble(String attributeName) throws ValueReaderException;
     * @return float readFloat(String attributeName) throws ValueReaderException;
     * @return int readInt(String attributeName) throws ValueReaderException;
     * @return long readLong(String attributeName) throws ValueReaderException;
     * @return short readShort(String attributeName) throws ValueReaderException;
     * @return String readString(String attributeName) throws ValueReaderException;
     */
}

```

Console

```

AllTests [Java Application] C:\Program Files\Java\j2re1.4.2_06\bin\javaw.exe (10.04.2005 18:52:56)
MESSAGE:: (main/JValue/L3):: JValue startup time: 0.15 seconds
.....
Time: 1.622
OK (122 tests)

```

Beispiel: Code-Generierung?

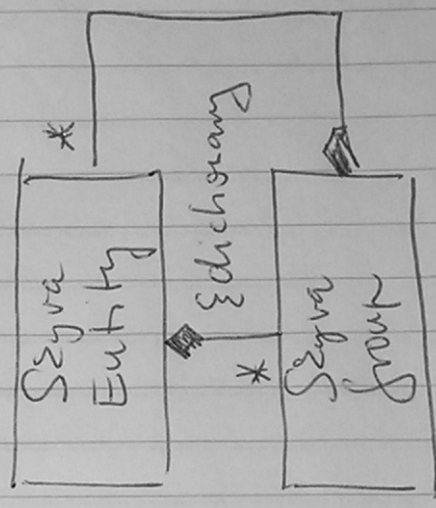
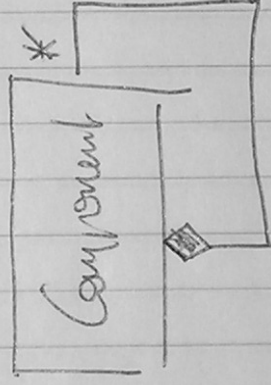
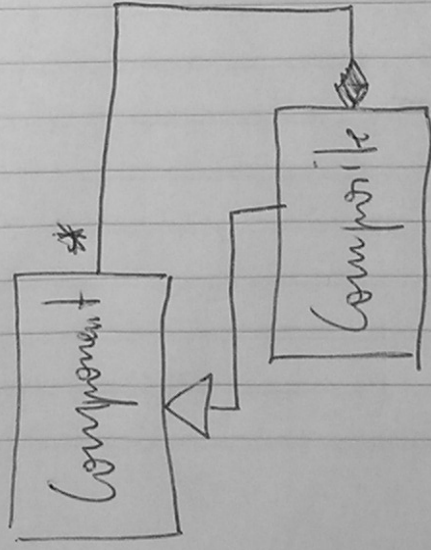
- Lieblingsthema von...
 - Werkzeugherstellern und Doktoranden
 - Nur: Funktioniert bisher mehr schlecht als recht
- Unterscheidung Schablone von Muster
 - Einbettung in gute Werkzeuge essentiell
 - UML-basierte Modellierung und Metamodellierung
 - Zur Zeit aber nicht wohl definiert und standardisiert

Einbettung in Firmensprache

- Allgemeine Muster
- Firmenspezifische Muster
- Firmenspezifische Anpassungen
- Integration mit Architekturstil
- Integration mit Programmiermustern

Beispiel: Firmeninterne Muster

- SKYYVA's Variationen über Kompositum
 - Standardversion, Alternativ-Version, SKYYVA-Gruppen
 - Angepasst an Entwurfsprobleme, Situation
 - Im Code, in der Diskussion, in der Studiengruppe



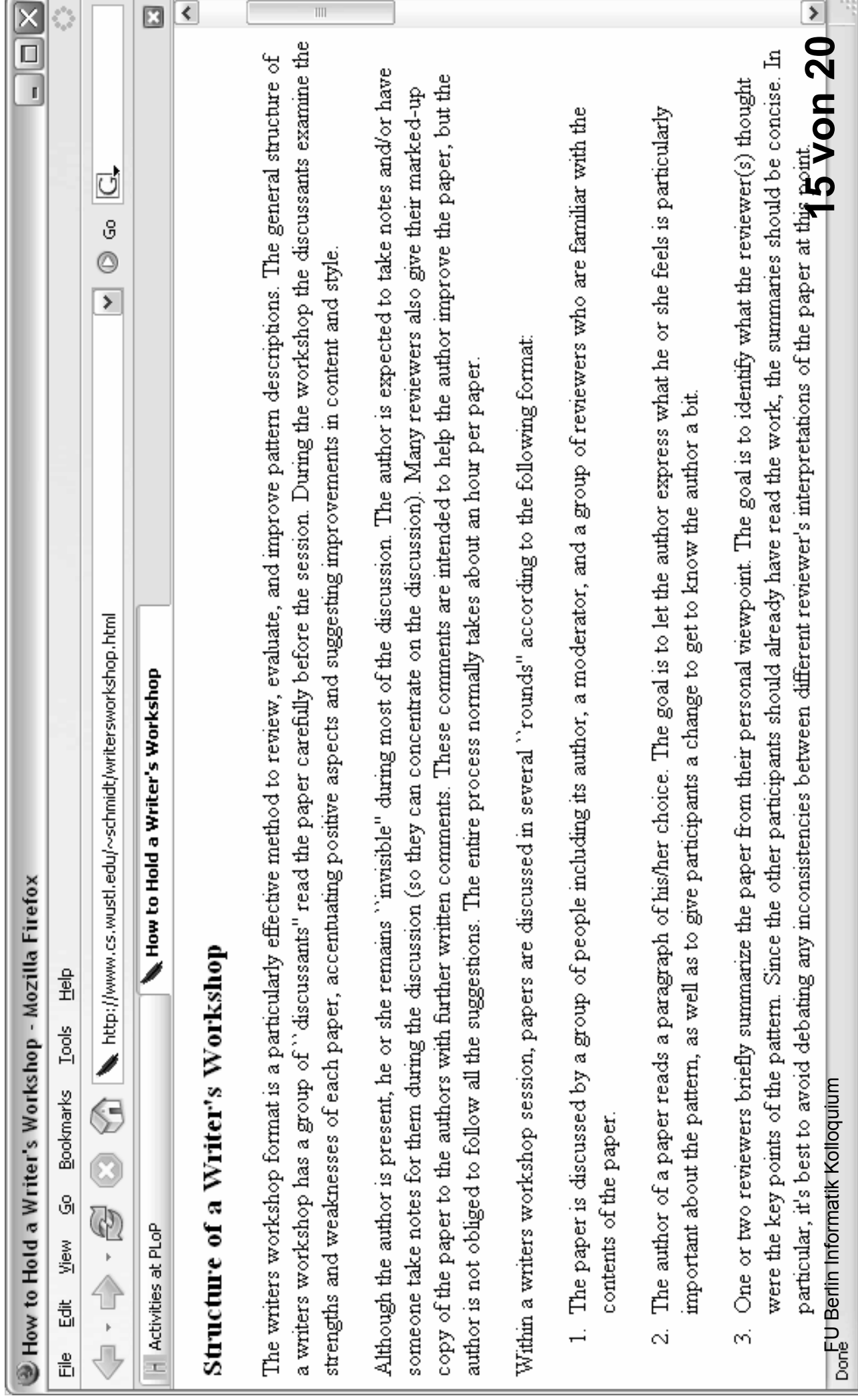
Firmeninterne Studiengruppe

- Zur Weiterbildung
- Zum besseren Verstehen des Systems
- Zur Ausarbeitung von Firmenbeispielen
- Zum Ausarbeiten der Firmensprache

Weiterführende Literatur

- Josh Kerievsky's NYC Study Group
 - <http://www.industriallogic.com/papers/learning.html>
 - <http://www.industriallogic.com/papers/kh.html>
- Ressourcen auf dem Web
 - <http://hillside.net/patterns/links.htm>
- Überblick über Bücher, etc.
 - <http://hillside.net/patterns/books/index.htm>

Writer's Workshops



The screenshot shows a Mozilla Firefox browser window. The title bar reads "How to Hold a Writer's Workshop - Mozilla Firefox". The address bar contains the URL "http://www.cs.wustl.edu/~schmidt/writersworkshop.html". The page content is as follows:

How to Hold a Writer's Workshop

Structure of a Writer's Workshop

The writers workshop format is a particularly effective method to review, evaluate, and improve pattern descriptions. The general structure of a writers workshop has a group of "discussants" read the paper carefully before the session. During the workshop the discussants examine the strengths and weaknesses of each paper, accentuating positive aspects and suggesting improvements in content and style.

Although the author is present, he or she remains "invisible" during most of the discussion. The author is expected to take notes and/or have someone take notes for them during the discussion (so they can concentrate on the discussion). Many reviewers also give their marked-up copy of the paper to the authors with further written comments. These comments are intended to help the author improve the paper, but the author is not obliged to follow all the suggestions. The entire process normally takes about an hour per paper.

Within a writers workshop session, papers are discussed in several "rounds" according to the following format:

1. The paper is discussed by a group of people including its author, a moderator, and a group of reviewers who are familiar with the contents of the paper.
2. The author of a paper reads a paragraph of his/her choice. The goal is to let the author express what he or she feels is particularly important about the pattern, as well as to give participants a change to get to know the author a bit.
3. One or two reviewers briefly summarize the paper from their personal viewpoint. The goal is to identify what the reviewer(s) thought were the key points of the pattern. Since the other participants should already have read the work, the summaries should be concise. In particular, it's best to avoid debating any inconsistencies between different reviewer's interpretations of the paper at this point.

Done

FU Berlin Informatik Kolloquium

15 von 20

Musterkonferenzen

- The Hillside Group und Hillside Europe
 - Stimme der Gemeinde, Organisator, Stabilität
- EuroPloP and PLoP, VikingPloP
 - „Normale“ Musterkonferenzen zum Feedback
- ChiliPloP
 - Themenspezifische Musterkonferenz mit „Hot Topics“

Gruß aus dem Silicon Valley



Kurzfassung/Langfassung: See www.warenglassungfr.audio.files

Silicon Valley Patterns Group

1. Bring in authors
 - Motivierte Gruppenleitung
2. Safe setting
 - Auf dem Stand der Zeit
3. Say your names
 - Guter Draht zu Autoren
4. Insist on preparation
 - Gute Moderation
5. Encourage everyone
 - Fehlen jeglicher Arroganz
6. Reflect and experiment
 - Konsistenz, Regelmäßigkeit
7. Meet in comfy place
 - Mailing-List, Wiki
8. One person at a time
9. Bring in laptops
10. Select by consensus

Berlin Patterns Group

yahoogroups.com/group/berlin-patterns-group

Email: dirk@riehle.org

Web: www.riehle.org

Bzgl. Ihres Instituts-Wiki...

WikiSym 2005

**2005 International Symposium on Wikis
October 2005, San Diego, CA**

**www.wikisym.org
chair@wikisym.org**