Software Architecture/Design Extraction and Restructuring

A Technology Maturation Study
by Marwan Abi-Antoun

17-939A: What Makes Good Research in Software Engineering?
Professor Mary Shaw
Spring 2005
Reconstruction

- Reverse Engineering to Module Level
  - Modularization
  - Clustering
- Reverse Engineering to Architectural Level
- Design Pattern Detection
- Tool Support
Restructuring

- Transformation-based approaches
- Stepwise refinement approaches
- Graph-rewriting approaches
- Mathematical concept analyses
- Semantic-based approaches
- Type theoretic approaches
- Inconsistency management
- Tool Support