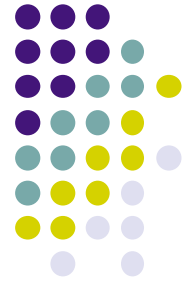


Conclusion of the course



- We hope you have enjoyed this course
 - If you are a student, we hope it gives you an incentive to continue studying programming
 - If you are a professional, we hope that we were able to hold your interest and give you some new insights along the way
- We are using and developing Oz and Mozart2 for education and research, in several ongoing projects
 - We are always looking for help and you are welcome to join our community!
 - Just make yourself known on the mozart-users mailing list (see www.mozart-oz.org) or send me mail
- We will continue to improve this course
 - All feedback and constructive comments are welcome

A final reflection on programming

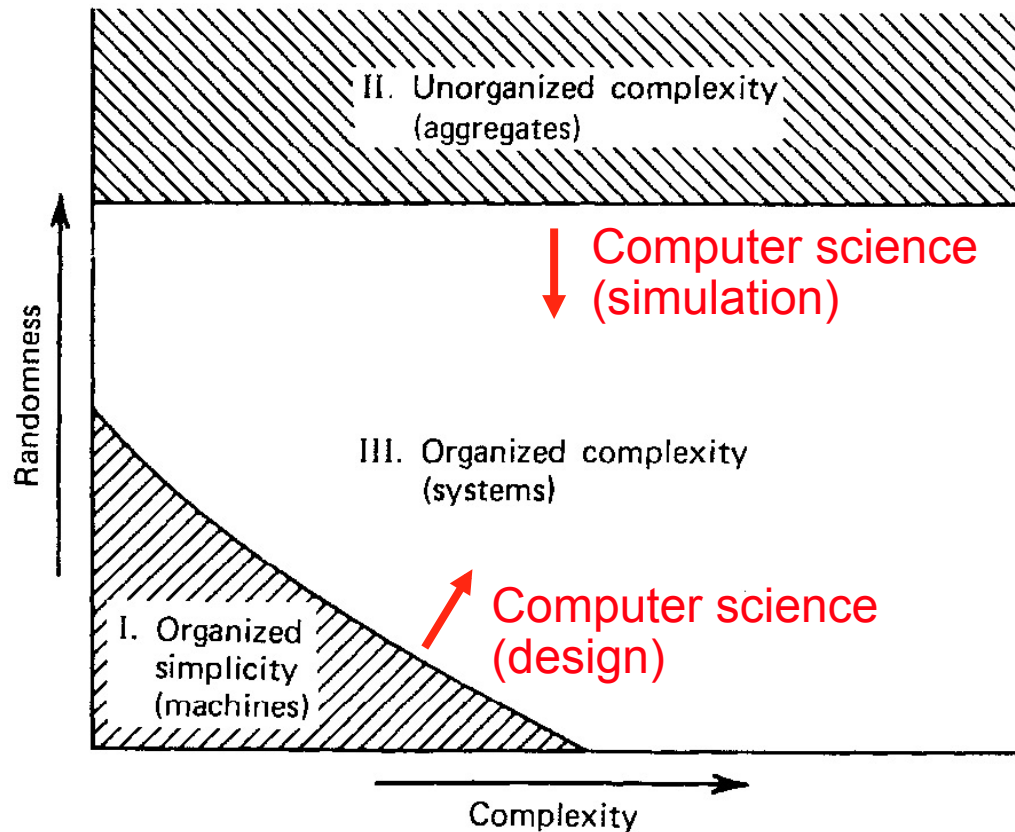
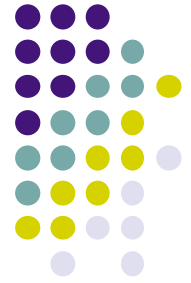


Diagram from [Weinberg 1977]
An Introduction to General Systems Thinking

- Programming languages are **not** arbitrary inventions of the human mind
 - Programming language design is a science of nature, like physics
 - Successful programming languages model some essential aspects of how to construct **complex systems**
 - **Systems** are composed of parts that interact in a well-defined way to provide a new behavior
- Computer science is the most advanced discipline for building complex systems
 - Programming languages are the vanguard of complex systems
- **Each newly discovered programming concept advances the science of building complex systems**



Further study

- We have only scratched the surface of programming languages and paradigms
 - Paradigms poster:
www.info.ucl.ac.be/~pvr/paradigms.html
- To help you further your study, I have compiled a short bibliography of reference works
 - It is rather idiosyncratic and definitely not complete
 - Not all works focus on programming languages, but all have helped me understand programming

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