

Systems & Complexity

Q1. What is a good working definition of what a System is and perhaps what it is not?

A system is a group of things that unifies itself and contain more than one single entity. Few examples are computer memory (Ram) or the CPU. Something that is not a system would be the opposition of unifies, hence, Chaos since chaos disorganized things and parts of a system.

Q2. For the 4 system definitions you were to look up please give in your own words what they mean and give an example of them for each case.

Modularity - Basically any component that are stand alone individuals but can also be paired with one another.

Decomposability - Elmon Musk first principle thinking. Everything boils down to their fundamental truth.

Emergence - Drugs. Any drugs, legal or illegal arrive from emergence. An interaction of multiple organisms to form a complex solution for anyone to use.

Chaos Theory - Freedom of choice. One single choice to overturn your schedule, habits or day Which dictate how you arrive in 5 years from now.

Q3. Give us your definition of what Tessellation means and give an example you encountered, not mentioned in the reading.

A repeated pattern of shapes align next to each other that are being displayed. I think of psychedelic drugs video on Youtube with crazy colors.

Q4. What is The difference between ideas of Modularity and Tessellation? What are the properties that are in opposition with each other?

The differences between modularity and tessellation is the working process. Tessellation is a puzzle that fit together through multiple patterns, angles and shapes, meanwhile modularity is disassemble pieces of shapes form together to remake a new structure that serves as a certain purpose.

Q5. What is the difference between designing something that has Complexity (aperiodic) vs being Uniform (periodic)

Designing something that has complexity vs uniform has a very different outcome due to its starting process. Complexity creates random variables of shapes or patterns using no translation symmetry. The pattern cannot be repeated so it does not cover the whole plane. On the other hand, Uniform design means that the pattern and shapes can be translated forever.