Fractals: Theory, Application – and Business Cards

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- Fractals:
  - Geometry
    - Iteration
    - Self-Similar
    - 2- and 3-D
  - Analysis
    - Recursion
    - Sequences
  - Origami
    - Menger Sponge
    - MegaMenger

MegaMenger 2014
- SCHEMaTC

- Cube Construction Basics
- Level-1 Menger Sponge – Overview
- Tripod Construction Method for Level-1 Menger Sponge
- How to Build a Single Tripod Unit


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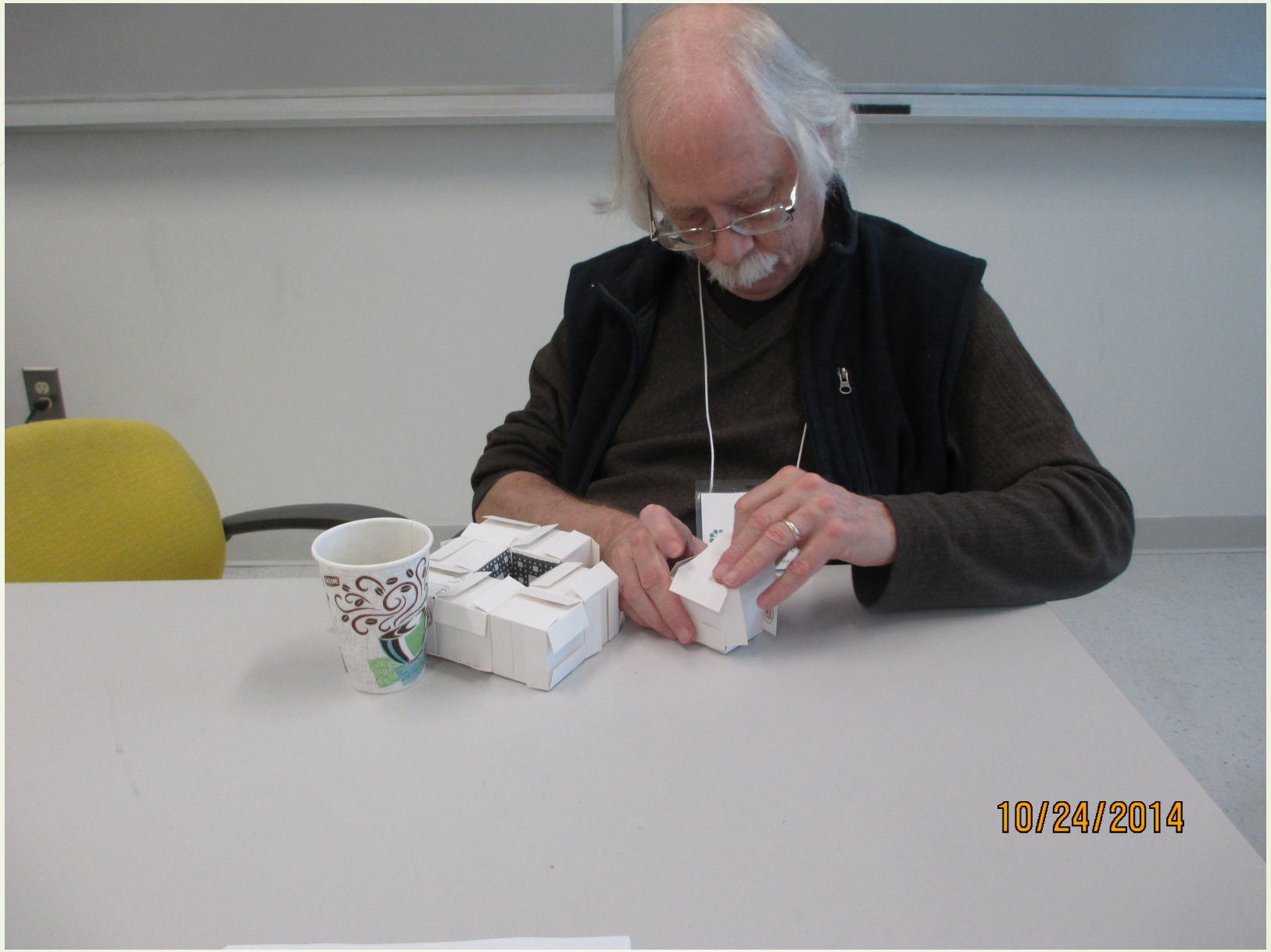
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MegaMenger 2014 – USC High School Math Contest (Jan 2015)

- Cube Construction Basics
- Level-1 Menger Sponge – Overview
- Tripod Construction Method for Level-1 Menger Sponge
- How to Build a Single Tripod Unit
- Tripod Construction Method for Level-2 Menger Sponge


THE DONOR'S ROOM


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Applications

- Sponge
- Human Lung
- Catalytic Converter

- Basic Principle:
  maximize surface area while minimizing volume

MegaMenger 2014 – The Final Build (April 2016)

- Cube Construction Basics
- Level-1 Menger Sponge – Overview
- Tripod Construction Method for Level-1 Menger Sponge
- How to Build a Single Tripod Unit
- Tripod Construction Method for Level-2 Menger Sponge
- Doug's Construction Method for Level-3 Menger Sponge


brother
MEGAMIND
Making cube units

References

- SCHEMaTC
  - http://people.math.sc.edu/schematc/
- MegaMenger
  - http://www.megamenger.com
- USC High School Math Contest
  - http://www.math.sc.edu/contest

Thank you!