

Good practices

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Author's name and institution:

János Szász Saxon, Széchenyi Academy / Poly-Universe Ltd, Szokolya, Hungary

Description of the problem / exercise: **Space Glider**

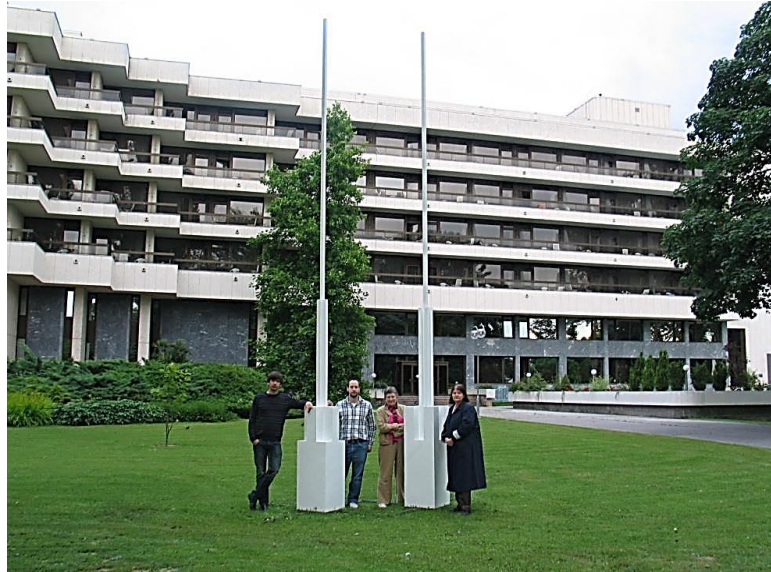


Figure 1: SAXON, Space Glider 2008, 50×50×700, metal public artworks

The picture above (Fig. 1) shows a public space work of Saxon, the title is 'SPACE GLIDER', which is based on the principle of dimensional compression. Why do you think the creator gave him this title?

Saxon also made a similar work with the proportions of the square element of the Poly-Universe, which he transplanted from the plane into space (Fig. 2).

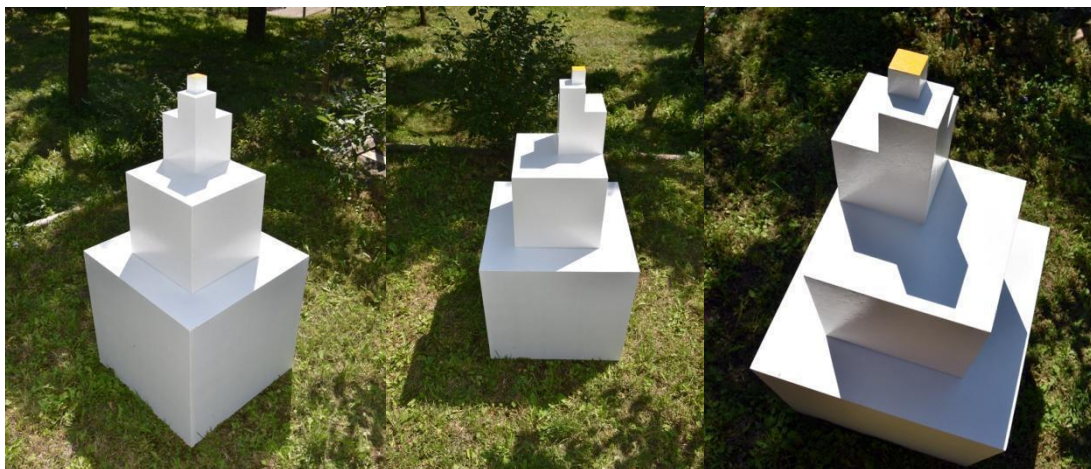


Figure 2: SAXON, Dimension Tower, 50×50×70 cm, oil on compressed wood

Now we want to design a poly-dimensional tower (Figure 2-3) and build an elevator in it that will take us directly to the moon. The floor area of our building is square-based, from the corner of which the elevator starts. The building is designed so that we always start another square column from the next level, the base area of which is a quarter and the height of which is the volume of the original cube. We repeat this process until our tower house reaches the surface of the moon. Model it with wood and cardboard box in a few steps until it fits in the classroom...

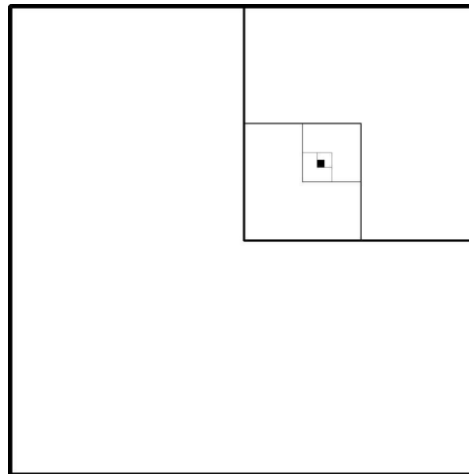


Figure 3

Questions:

1. Which are the tallest buildings in the world today, and after how many pressing steps does the height of the poly-dimensional tower leave them?
2. How many steps can we get to the moon? If you need to change per level, how many transfers will be needed? Do you know that the Eiffel Tower also needs to be transferred level by level to the next higher lift?
3. How fast does the elevator have to be to get there in an hour?
4. After how many levels do we reach weightlessness?
5. What is the floor area of the starting building/square, in order to reach the Moon to get off? Think about being able to fit in the elevator...

- *Why this exercise is good:* Complex questions, really interdisciplinary tasks. Develops creativity, complex way of thinking.
- *Level of teacher training:* Primary school, secondary school, subject teacher
- *School subject (s):* Architecture, design, astronomy, mathematics, physics, technology
- *Comments:* The question set can also be asked in larger perspectives