

Moments from the Short Study Visit in Eger

From 15th April to 15th May nine Serbian students came to Eger, to join the „Visuality and Mathematics” course of the Tempus project. Also 24 from the mathematics students of the Eszterházy Károly College took this course, so we had 12 seminars and lectures during the month together. These were the following:

1. Visual communication lesson in secondary school – visit and discussion.
2. Descriptive geometry lesson in secondary school – visit and discussion.
3. Problemsolving in mathematics.
4. Optical illusions – the psychology of seeing.
5. ZomeTool and nanotubes – a useful kit for teaching geomerty.
6. Spatial abilities and their evaluation –tests and tools.
7. Music and mathematics.
8. Visual arts and mathematics from the viewpoint of an artist.
9. Computer graphic softwares.
10. Planning a ZomeTool construction.
11. – 12. Building the ZomeTool construction.



During the lectures and seminars we got acquainted each other, and could see many different viewpoints of the connection between mathematics and visuality. The main task of the course was to show how visual arts and visualizing problems can help in the development of mathematical competencies, how we can recognize the mathematical structures in artistry, and how we can use it in school. We worked out a project with ZomeTool kit, and at the end of the course we built up a special construction we planned together. The topic was nanotubes, which is a follow up of our previous construction from 2011, a huge Buckminster fullerene (see: <http://www.youtube.com/watch?v=TEH5XUKB3tc>). The one we created now is "Species of Carbon". It is a 2 meter high „sculpture”: the base of it is 2 streaks of graphene

plane, on which 3 carbon nanocapsules stand, forming a tetrahedron. Inside the tetrahedron there's a diamond structure, and on the top of the nanocapsules a huge fullerene molecule. Each capsules are different: one is single-walled, the other is double-walled, and in the third there are 2 smaller fullerene molecules. As we have learned a lot about spatial sight, problemsolving, visuality and tried out different structures from ZomeTool, it was a great job planning and building this „sculpture” – I think, everyone enjoyed it.



Besides the serious work we had several other activities (Serbian and Hungarian students and our professors together). We visited two interesting exhibitions: the "Loss of Sight", which was about how we feel and get orientation when we can't see anything, and the Kepes György Institute with the exhibitions of 3 artist, all of them use many mathematics in their artistry.



As Eger has got many interesting places to visit, and also the surrounding of the town is rich in sights every day had its own programme: the castle, the Lyceum, Basilica, the Bishop's Park,

the Thermal Spa, wine cellars in the Valley of the Beautiful Woman, etc. Our leisure time activities together were the College Days, an excursion to Felsőtárkány (with cooking gulyás outside), and a Farewell Party in the Students' Club.



As you can see from the photos, we had a useful and wonderful month together. It was the „beginning of a beautiful friendship”... We are looking forward to the Summer School where we shall hopefully meet again.

Eger, 2013-05-16

Ilona Oláhné Téglási

Course coordinator EKF

