

News

- Events
- Press Releases
- Publications

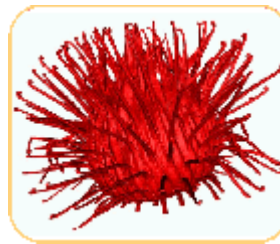
Eden Project exhibits go on display

Exeter - 10/10/2005

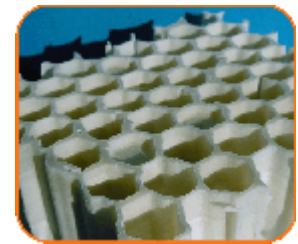
The Eden Project's new education centre "The Core" is due to be officially opened in the spring of 2006 but it has recently been opened to the public through a soft launch so that visitors can see the building evolve and grow over time, alongside the plants displayed there. The very centre of the building holds a central 'trunk' inside which one of the largest rock sculptures in the world will be housed. The display cabinets surrounding the trunk will house a set of exhibits illustrating classic examples of Biomimicry and will describe how for many years, we have turned to nature for inspiration in design and engineering. The scaled up RP models of a burdock seed, a dandelion seed and a piece of honeycomb will represent the inspiration behind Velcro®, parachutes and engineering structural elements including the hexagonal design of the Eden Project's own Biomes. A scaled up model of the head of a Gazania (a daisy-like flower) beautifully illustrates the Fibonnacci series, a mathematical sequence commonly found in natural structures and around which the roof of The Core is designed. The models are exact copies of real specimens collected locally and the original objects will be displayed alongside the RP models with magnifying glasses to illustrate how small the objects are in their true existence.



RP of dandelion seed



Burdock seed in ScanIP



RP of honeycombe

Simpleware were key movers in the development of the models by converting the high resolution microCT data into the files required for Rapid Prototype production. We now propose to generate high quality FE meshes of the specimens in order to carry out computational mechanical and flow analysis on the structures to observe their behaviour under specific loading or airflow conditions.

The project was funded by the Engineering and Physical Sciences Research Council (EPSRC) on a Partnerships for Public Awareness (PPA) grant awarded to the School of Engineering, Computer Science and Maths at Exeter University. The awards present an opportunity for researchers to promote research and create a dialogue about science and engineering with the public. The project combines the knowledge and expertise provided by the Eden Project, Exeter University and Simpleware Ltd. alongside subcontracted companies SkyScan and Exeter Advanced Technologies (X-AT). The Centre for Medical Engineering and Technology (CMET), University of Hull, joined the project at a later date by generously providing microCT scan facilities.

For more information on the Eden Project's education centre: "The Core"

