

Vertical Studio Project Proposal from Mike Fedeski and colleagues

Exploratory design and brief for an Eco-Classroom for Edwardsville Primary School

Aims

- To develop an exploratory brief and design for an Eco classroom to house the Eco-junction scheme for sustainable education at Edwardsville primary school.
- To map out a plan for the operation of the school from cradle to grave, in a manner that maximises its influence on a sustainable future in the region.
- To develop design and communication “tools” for whole systems and ecological design.

Background

Edwardsville Primary School in Treharris is establishing itself as a role model for promoting sustainable living for its pupils and the community. Its deputy head, Jonathan Rigby, leads Eco-junction, whose brief is to facilitate sustainable initiatives in schools in, initially, the four counties of Merthyr, RCT, Caerphilly, and Mid Glamorgan, through project based, active learning linked to curriculum development. The proposed eco-classroom will be the central base for Eco-junction and a teaching space at Edwardsville primary school.

The project

Three different teams will be responsible for taking three different viewpoints. But the teams will work together on the development of all the ideas, to establish their relatedness. Early on in the project, the way the work is to be approached will be agreed with the students, and this could lead to changes in the programme.

Viewpoint 1. Designing the building. Output: a building design.

You are asked to produce a conceptual design, or design alternatives, for the class-room, seen as a prototype for the Eco-junction scheme. The eco-classroom will be built next summer, and involve a local architectural practice yet to be nominated. This WSA project is intended to rehearse the concepts involved, develop a brief, and test it in an exploratory design. **Jonathan Rigby** will assist in running this viewpoint.

A small free-standing building is envisaged that demonstrates the sustainable principles that Eco-junction is trying to teach and promote. It will be a single space for teaching up to 30 children (aged up to 16), for community use (e.g. meetings), and for housing a small, growing library of paper-based resources. It will need externally-accessible storage for horticultural tools. The client would like it to be inspirational, beautiful, iconic (it will represent the Eco-junction for visitors), and integrated into the immediate natural environment. He is looking for low cost, low-skill building techniques, for low-energy construction, for low energy consumption in use, for high use of sustainable or scrap materials, for accessibility for all potential users, and for flexibility to respond to developing use over the next 30 years. Features may include rain-water capture and filtering, use of solar energy for space heating and clothes drying, integration with permaculture food production, broad-band internet connectivity, and glare control for an interactive whiteboard.

The construction method should be specifically designed to include teachers, children and members of the local community in the building process at a range of stages and levels. Of particular interest is the relationship between hands-on on-site work (say, rammed earth for thermal mass) and off-site work (say, timber frames and high-insulation materials) training people from the local community in new skills.

Viewpoint 2. Promoting sustainable living. Output: a cradle-to-grave plan for operating the school.

From this viewpoint, you are asked to think about the place the school could and should have in the community, in the propagation of ideas and practices, and in shaping the future. The outcome of this thinking feeds into the brief for Viewpoint 1. We will be assisted by **John Whitehead**, of Sustainable Futures, who was instrumental in establishing the eco-classroom project. John is an artist, sculptor, designer and fabricator with a particular interest in the forms and functions of the built environment and their relationship to the ecology of landscape and people.

The building is to be both a learning environment and a teaching tool. It should embody and communicate sustainable living practices at all stages of its development, so that it supports the teaching of Education for Sustainable Development and Global Citizenship and demonstrates whole systems sustainable design and practice to a wider audience. It could provide teaching material for teaching at a higher level.

In its development and use, the building is to invite participation (at a range of levels) from children, teachers and members of local communities, in a way that facilitates learning by experience. It should reach out to the local community, influencing the minds and hearts of children, families, colleagues. The design and production process should generate practical skills for implementing further sustainable projects between schools and communities. It should develop capacity in the region to manage such projects, with a view to making opportunities for a more sustainable future for construction in the region.

Lessons will be sought from other sustainable community projects, such as Down to Earth (Mark McDonald and Jen Hughes), Rural Studios (Samuel Mockbee), and Earthship (Michael Reynolds).

Viewpoint 3. Reflecting on the process. Output: a whole systems design tool for examining key principles.

Some tools will be introduced into the design process to assist in uncovering issues and generating ideas. Tools are being developed by Artstation to draw attention to the wider significance of concepts that arise in the eco-classroom project, and we will be joined in this viewpoint by **Glenn Davidson** of Artstation. Glenn is an artist who designs and builds spaces and installations at an architectural scale.

This viewpoint invites you to reflect on the process you are undertaking. The Artstation tool, in common with many others, arose from such a process of reflection whilst undertaking design. By unwinding the process, it will be used as a catalyst for the development of your own tools for exposing the relationships between ideas that you find to be important whilst working with the other students on the building design and the sustainable living system it promotes.

There are issues at a global and political level. Where are the boundaries which should limit your thinking? If you can find none, how do you structure "everything" in a way that makes it useful?

At another scale, there are issues at a personal and phenomenological level. What is the impact of the whole project on the spirit and the senses of the building users. What does it mean to live in a sustainable manner and what does it feel like to work in a sustainable environment?

Reflecting on questions such as these, you are asked to represent the ideas and assemble them into something that others could engage with and use to advance their understanding. For example, you may render your ideas spatial, or present metaphors. Metaphors behind the Artstation tool were the card table and the game.

