

#### Non-Monument Monument: A Collaborative Conceptual Design

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This proposed paper examines an interdisciplinary approach to design a structure for a public space. It is presented as an innovative learning process as a project between MA Art as Environment and M Eng Civil Engineering students. The project's aim is to create a generation of Artists and Engineers, who design for the public environment, who understand the challenges of an interdisciplinary team and are sympathetic to each others discipline's constraints and language.

The paper discusses differences and benefits in collaboration between the artists and civil engineers. The precursors for effective collaboration are outlined. Lessons arising from experiential learning by the tutors and feedback from students are reviewed. The difficulty of running cross-disciplinary collaborative learning and teaching initiatives is addressed. Particular attention is given to the differences in civil engineering and fine arts curricula. Recommendations for radical changes to the civil engineering and art curricula are proposed.

This illustrated paper addresses issues from a continuing experiential learning and teaching collaboration. Art as environment students are taught alongside civil engineering students. The collaboration is a joint conceptual design project with common learning outcomes. The students undertake a collaborative design. This initiative completes two years of collaboration between artists and engineers in Manchester. It involves fourth year civil engineering MEng students and MA Art as Environment students as well as a leading design consultant – Ove Arup and Partners.

The project brief for the students in the first year of this collaboration focused on a National Health Hospital Trust space, involving collaboration with an international engineering design consulting firm and a hospital arts organisation. In the second year it was planned to have an international dimension. The learning and teaching strategy was already modified due to feedback from the first year. The second year of the project consequently shapes the proposal for the third phase.

This learning and teaching activity is part of a larger research based relationship between the UMIST and MMU.

## Curriculum development

The civil engineering design curriculum seems skewed towards closed problem solution. Even in the field of conceptual design the process of concept development is not clearly addressed with students receiving "givens" which are downstream in the process of concept development.

### Assessment and teaching and learning strategies

The link between learning outcomes and assessment of process and outputs is a key issue. Problems of balancing learning outcomes in the context of two different disciplines and process-outcome issues are considered.

### University/industry collaboration in built environment education

The engineering design consultant is a key player in the focus, development and implementation of this learning and teaching initiative.

# Collaboration with public bodies

The mutual benefits to organisations in the community such as the NHS and CITS are important benefits for those organisations, universities and students alike. Multi-disciplinary learning and teaching activities associated with the built environment have an important role in urban vision, regeneration and sustainablity. The nature of the facilitation of collaboration is an important aspect of effective learning.



The paper outline the process and outcomes of the second year of this ongoing collaboration concerned with the relationship between St Petersburg, Russia and Manchester in the UK.