

BEING CARBON NEUTRAL

Teaching Sustainability Through Shadow Puppetry – A Practical Example of a Project to Encourage 7 – 11 Year-olds to Design for Their Future, in a School in Norfolk, UK.

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I run a puppet company – **Nutmeg** – which I founded in 1979 to produce and tour original puppet theatre shows and practical workshops for outdoor events, schools and small theatres. My work has always had an environmental bias. I believe strongly that loss of contact with the natural world affects most contemporary children detrimentally (“Nature Deficit Disorder” (*note 2*)), and that most education with its emphasis on literacy and numeracy, fact finding and research, ignores the vital development of practical skills and emotional growth. We believe that children are naturally inventive and optimistic. They are good at working in groups and co-operating to solve what can appear insuperable problems to individuals. We also believe that theatrical performance, and the use of innate practical skill to make things, have a unique way of engaging children's attention. The memory of these activities is long-lasting

BACKGROUND

Neither Nicky nor I have received formal training for teaching children. However, I have been working in schools since the mid-seventies, touring puppet shows and practical workshops, and Nicky trained and worked for many years in adult education and worked with all ages as Education Officer for Suffolk Wildlife Trust. We have both worked collaboratively with education advisors and teachers, and were both much inspired by the visionary writing of Prof Steve Van Matre (*note 3*). Other sources of inspiration for me were involvement with the Woodcraft movement, and voluntary work with the progressive education charity Forest School Camps (*note 4*).

For 25 years from 1985 Nutmeg was privileged to work in the Norfolk and Suffolk Broads, a wetland National Park in the East of England. We produced and toured shows about the ecology and social history of the region to families on holiday and to local schools. The then Chief Executive of the Broads Authority, Aitken Clark, was a far-sighted internationalist who believed in the power of the arts to inspire children, and indeed adults, to develop an emotional understanding and response to the natural environment. In his own words;

“ The medium of puppetry, so artfully crafted, bridges language barriers and engages children and adults alike in plots and dramas vibrant with meaning, illustrating ideas, and giving messages of exhortation to care for and cherish the lovely fragile wetland environment....”(*note 5*)

At his instigation we ran the **Ecopuppets project** from 1995 – 99, linking the Danube Delta, Romania, and the Broads, and working with teachers and children in schools, environmental artists, education advisors and environmental education officers. Though the main art-form of the project was shadow puppetry, several teachers used our methods with different art-forms to great effect. We published a booklet about the project with practical advice, the **Ecopuppets Handbook**, in English and Romanian (*note 5*).

In the UK, my colleague Nicky Rowbottom and I devised several workshops for schools to accompany shows I produced for the Broads. For “**Windy Old Weather**” the children did simple technology experiments relating to wind power. For “**Heatwave**”, we encouraged them to describe their own experiences of the weather, and to design clothes, houses and vehicles that could cope with climate change. We found the experience so stimulating and exciting that we decided to produce a further stand-alone workshop.

THE PROJECT

We developed the **Being Carbon Neutral** workshop for 7 – 11 year olds in 2008/9. We applied for, and were awarded, funding by The Broads Authority Sustainable Development Fund which in turn was funded by Defra (*note 1*). The objective of the project was to encourage children to think dynamically and positively about living sustainably in a future dominated by climate change. As this is a big subject, we chose to concentrate on sustainable building, using functioning examples of innovative practice in the East of England to inspire the pupils. In designing the workshop, Nicky Rowbottom and I consulted Norfolk and Suffolk environmental education advisory teachers, Sue Falch-Lovesey and Alison Wood, and teacher Jane Wells, who had headed a project involving the children, to build a wind turbine at their school. We also visited sustainable building projects – a new distribution centre built for Adnams Brewery, and Crossways gigantic tomato nursery run on the power and waste products supplied by the nearby sugar-beet refinery – We researched other similar projects via the Internet.

We aimed to unlock children's imagination through the practical/theatrical medium of puppetry, creating and performing a live shadow-puppet show that presents a dilemma about sustainable living. It tells the story of a family whose house has blown away in a storm. The adults despair but the child, ever optimistic, suggests ways the family could make a new home. The story is full of visual clues but it is left open-ended. In the workshop sessions the children were asked to work out how the story could end, and create their own shadow shows to demonstrate it. We also encouraged them to think about sustainable energy through practical technology experiments.

The workshop lasted a day. The programme began with the shadow puppet play/demonstration by us, followed by a practical shadow puppet-making demonstration; a power-point presentation about sustainable buildings in the East of England; and two concurrent practical workshops; one (led by me) to make shadow shows, the other (led by Nicky) to carry out simple technology experiments. In the afternoon, we swapped the groups and repeated the workshops, so that all the children were able to experience both.

In the puppet workshop the children worked in small groups, inventing between themselves the story lines and the characters, and negotiating who should make what. I asked them to keep words to a minimum and commit them to memory to keep performances short and spontaneous. Some children found this very challenging. They made puppets and scenery, rehearsed and then performed their shows to their classmates.

In the technology workshop, the children learnt the difference between sustainable and non-sustainable energy, used a quiz to find out how sustainable their own lives were, tested different types of light-bulbs, and in small groups made windmills that were able to raise weights.

We made a DVD about the project with two of the schools we visited. (At the EAEN Conference a short clip from the puppet workshop was shown, in which children work together in small groups brainstorming ideas, working out a storyline and list of characters, then cut out puppets and rehearse their shows. A second clip from the technology workshop shows two girls trying to make a windmill together, and disagreeing about how to make it. One girl insists on trying her method, as the other quietly tries to show her she

is wrong. The windmill fails, the quiet girl prevails and they agree on the best method. The clip ends with the girls trying out their windmill in the playground.)

After a pilot workshop in a local school, we ran 15 workshop days and worked with 822 children in 30 classes from 16 schools (two tiny schools linking up together for one workshop day). 6 of the schools were in urban deprived areas, and 10 in isolated rural communities.

CONCLUSION

We produced a teachers' pack, which included follow-up ideas, further reading, and notes on the research basis of the project. It also included an evaluation form for staff. The response was almost unanimously positive and we felt that we had produced a workshop that really filled a need, and that acted as a stimulus to further work on the subject. The only negative response we received was that they wanted more time for the workshop, or for us to be in the school for longer. We noticed that the older the children were, the longer they wanted or needed for the shadow puppet workshop, as they had more elaborate ideas and a higher expectation of themselves than the younger children had. Here are some of the comments:

"We all had a wonderful day. The children were fully engaged in what they did and loved creating their own play. The way information was presented inspired the children and will have a lasting impact. It gives us a great platform to work from.

"All the children enjoyed themselves and experienced a feeling of achievement.

"The workshops linked in to preliminary discussion about global warming. It will link to on-going work within the school (led by school council) to raise awareness of how much energy we use/waste and how we can reduce this.

"We will be continuing shadow puppets after half term to help develop stories with a dilemma as a focus, in their literacy.

"It developed their thinking skills, generated lots of group discussion and collaboration. They also learnt about different ways of addressing global issues and what can be done to help.

"They gained a much better understanding of what carbon footprint means and of how we create it. "I think they gained a sense of what they can do to make a difference. They loved creating and performing their own stories.

"I think it was a really good balance between creativity and factual information – activities kept their interest.

REFERENCES

1. Nature Deficit Disorder – term coined by Richard Louv in "Last Child in the Woods" pub. Algonquin.
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3. "Earth Education - a new beginning" – and other books by Steve Van Matre - Institute for Earth Education.
4. Forest School Camps www.fsc.org.uk/archive/index for background information
5. Ecopuppets Handbook / Manualul P_pu_ilor Eco - pub. Broads Authority 1999 – available via www.nutmegpuppet.co.uk