

SCIPD report: educational visit to Holland, and impact on myself as practitioner.

A brief overview of the nature and the intention of the visit.

Having had an invitation to visit Holland to find out another country's perspective on sustainability and this new "cradle to cradle" technology, I was initially overwhelmed by the range of possibilities; mainly due to workload and the necessity to support my team during the run up to introducing level 4 BGE in Design and Manufacture, Graphic Communication, Administration and IT and Business I had considered NOT going. However, following encouragement by my team, line manager and HT, I "signed up". One of my best ever decisions!!!!!!

In arriving in Glasgow airport, meeting my new colleagues, I was reassured that we all knew very little about this alien concept,(C2C) but were all ready and able to give it our best shot.

Our visit to Holland was well organised, both from a Scottish and Dutch perspective, and very quickly our hosts were able to convince us of a need for change in terms of thinking on sustainability, use (and abuse) of valuable resources, and certainly of the need to think radically differently in our problem solving.

As the week progressed, with visits to schools, colleges, and industry (carpet manufacturer and resource retrieval company) I found the whole concept of effectively banning design **obsolescence** in favour of design **sustainability**.

The schools managers had been given an opportunity for direction of the new builds, with pupil satisfaction, and sustainability of heating and lighting being given a very high priority. It was clearly evident that their vision and style of management were going to reap strong dividends in the longer term. Particularly inspiring was the lateral thinking adopted in the heating and lighting, where solar power was harnessed support the cost of the electricity, whilst heating water which, having been stored deep underground during the summer months was retrieved during the winter months to heat the under floor heating system. Apart from the electricity to manage this process, no other energies have been used to heat this school since its build over 2 years ago.

The industrial visits were even more spectacular; the carpet manufacturer was able to clearly demonstrate the long term benefits of the forward planning, lateral thinking and faith apparent in grasping the C2C concept firmly in both hands.

The resource retrieval firm were also major players, in terms of demonstrating very clearly, the possibilities afforded by C2C, with sound management and imaginative thinking. Particularly interesting was the self "disassembling" coffee maker, designed in conjunction with Phillips, while more controversially (esp. for my pupils!) was the retrieval of paper from sewage to manufacture A4 photocopier paper!

The impact that this visit had upon me as a practitioner, in terms of CPD.

I have always been a keen advocate of lateral thinking within design and manufacture. I am also very enthusiastic about retrieval of resources. I am passionate about doing my bit, with my pupils, friends and family, when it comes to helping our planet. For example, I designed and built my own ride on lawnmower using waste materials in my workshop. It has cut my approximately half acre of grass, reliably and efficiently since 1995! I installed a new heating system for my farmhouse, namely a ground source heat pump. It took me over 4 months to install the system, through earth works for the ground loop pipe work, (about 500 tonnes of earth moved by quickly learned JCB!) plumbing, insulating, and electrical work. I sought the services of qualified practitioners to certificate all of my work, culminating in successful commissioning by the micro generation installers.

As noted above, I didn't need a huge push to realise the implications of C2C, and have learned so much about the concepts and issues, and need no convincing about the desirability of C2C promotion within the education sector.

The impact that this had upon my school, my learners and my community.

On returning to my school, I was quick to bring the attention of my Technical and Business Education colleagues to the "Circular Economy" or "Cradle to Cradle" technology. Initially they found it completely alien to our own "throw-away society", but have gradually considered this in more depth, and while it is not yet absolutely second nature, they are increasingly able to understand the need and the desired effect of these thinkings.

I have "spread the word" to other departments where design, sustainability, resource retrieval and considered use of the planets increasingly scarce resources are a common language; Geography, Mathematics, English, Science and Business departments have all shown strong interest, and have already made steps to include some limited input into their curricular areas. Understandably, the effects of this are variable, down to a number of human and time dominated factors.

However, as far as I am concerned, there has never been a better time or opportunity to bring c2C into the curriculum. My team have already integrated research and work within our S1,2,3,5 and 6 year groups, within Design and Manufacture, Graphic Communication, (BGE levels 3 and 4), Higher and Intermediate 2 Product Design, and 2 senior pupils working on my Advanced Higher in Graphic Communication have included the concepts of C2C into their 3D modelling and graphic thematic presentation.

I have yet to find the time, and the most appropriate opportunity to present this to my senior colleagues, or indeed my Faculty Head colleagues. It is understood that Curriculum for Excellence issues within Faculties is an extremely high priority for us all, and careful and considered presentation in terms of style, manner and timing will be fundamental in C2C's successful and confident adoption.

How I plan to take this further.

- Recognising the importance of level 4 BGE, particularly with reference to Design and Manufacture, I have personally delivered a series of lessons with the S3 cohort; understandably this was not an overnight success in terms of 100% pupil acceptance, understanding or indeed immediate adoption. Our team have continued to (increasingly successfully) “drop in” C2C thinkings as relevant and pertinent in teaching, and this “drip feed” approach seems to be working well. Pupils will even stop me in the corridor or the playground (once in Sainsbury’s!!) and ask my opinion on a topic!
- We are considering a competition, recognising the skills and enthusiasm of our two new NQT staff, aimed at Lower School pupils.
- I was asked to support other colleagues within 6 schools in East Kilbride and Rutherglen as a professional network leader; this has given me a further opportunity to present the C2C concepts to a wider audience. This is particularly important, I feel, since C2C is very firmly identified within the new National 6 (Higher) course of Design and Manufacture. This was met with favourable response. More to come.
- We are all presently working hard preparing resources for National 4 and 5; this is a golden opportunity to fully integrate C2C into this work.
- Our Graphic Communication courses include a large topic on “Climate change”, tying in with our thematic approach to the level 4 resourcing and teaching, of careers and professions connected with the full range of work within design and build a family home. Cradle to cradle considerations, sustainability and use of renewable energies will be significant parts of this topic.
- We are currently working with the Business team, with a view to work with the Design and Graphics pupils to consider a joint project. This is presently still “on the drawing board” if the pun can be excused!
- There is a possibility that a member of our team will be providing some much needed primary liaison; this is a perfect opportunity to present this to young imaginative minds. Work in progress at the moment.

Overall, I hope that I have clearly and honestly indicated my support for this new and exciting opportunity, and have demonstrated my commitment to its development within my school and within the wider educative community..

I will be attending the SLF on September 20, where I have been asked to be available to support the EMF to answer questions or put forward an informed point of view about the C2C concepts.

J.B.Gilliland Principal Teacher of the Faculty of Technologies, Strathaven Academy.