



SEDA AGM 2012: More Process, Less Product?

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The official magazine of the Scottish Ecological Design Association, Rose Cottage, Whitecastle, Biggar, Lanarkshire ML12 6LZ



Following on from his plea at last year's AGM for clients to stop undertaking 'pilot' projects and just get on with *delivering* sustainable development, Howard, one of SEDA's founders, used the stand this year to introduce the notion of 'funnel vision'

to question why the concept of 'sustainability', which, by definition, covers a whole series of criteria, is consistently degraded to mean resource use (i.e. product, not process) and energy.

With typical clarity he further slammed the fact that the two issues are, with alarming regularity, lumped together under the heading of 'carbon', resulting in mono-functional solutions that in his clear view do nothing to deliver sustainable development or contribute to our understanding of ecological design.

Partly as a reaction to this, partly as a carefully considered counterpoint to his 2008 book, *Ecominimalism: the antidote to Eco-bling* (RIBA Publishing), and perhaps partly as a mission to remind us of the wisdom of our forebears, Howard has developed the 'Eco Max' lectures where the 'c-word' is forbidden. In each of these he will focus on the separate contribution of seven individuals to our understanding of ecological design and illustrate the breadth of thinking required to really achieve this.

The lecture delivered at this year's AGM was an introductory one, giving a brief overview of each of the seven figures, the principles that they promoted and an example of the application of these principles in practice. In another link to the previous AGM and magazine, the list was prefaced with a brief nod to Patrick Geddes – 'the grandfather of sustainability'.

Linking neatly to the theme of this year's AGM, it was noted that Geddes completely understood the intrinsic value of process if the 'product' was to be optimised. Adapting and expanding on Geddes' tripartite headings of 'Place', 'Work' and 'Folk' (from his summary in 1915 that "*Town-planning is not mere place-planning, nor even work-planning. If it is to be successful it must be folk-planning*"), Howard used a 'Sustainability Value Map', developed by colleague Chris Butters, to clearly illustrate the numerous issues that are of importance in any project and that c****n is but one of 70+ issues under 20+ sub-headings, themselves categorised under the three original headings mentioned above. Far from resulting in a mere box-ticking exercise, breaking down the issues to this level of detail offers the opportunity to see the linkages

between different aspects of ecological design.

Taking this one step further Howard offered his own personal development of Agenda 21's appeal to *Think Globally, Act Locally* by suggesting that we actually have most to offer, and can really make a difference, when we think between these two levels and take action at the bioregional scale.

He then moved onto the first of his seven figures, Rachel Carson (1907-1964), an American marine biologist who extensively researched and studied the effects of chemicals on animal, plant and human health. Taking this research as a cue, Howard noted that, in Stephen Buchman's words, "*...the world is focused on the charismatic megafauna – the lions, tigers and bears. The little*



Modern buildings: TECHNOLOGY-RICH
Image: EZTD Photography



Termite mound: SCIENCE-RICH
Image: Janice Foster



things that run the world, including bees, butterflies, bats and hummingbirds, go unnoticed and unprotected until it is sometimes too late..." (*The Forgotten Pollinators*, Stephen L. Buchman & Gary Paul Nabhan, 1997, Island Press)

The second of Howard's leading figures is James Lovelock, the NASA scientist who in the 1960s developed the 'Gaia' theory that the earth is a self-regulating entity. Lauded and dismissed in equal measure by scientists and the public, the hypothesis today remains controversial but of great value. Taking Lovelock's warnings about population growth and E.F. Schumacher's point that "infinite growth on a finite planet is an impossibility", Howard raised a salutary reminder of the need to completely review our system of economics and suggested that this is a subject SEDA is in a good position to develop leading thinking on.

"...loss of biodiversity is even more of a threat than climate change..." (United Nations report, 2012)

Howard's third figure, Ian McHarg, is the author of *Design with Nature*, the seminal 1969 book on ecological design, in which he declares that "planning with nature is the best economic option." Despite the book being well-received at the time, and McHarg himself becoming a highly respected figure in environmental, educational and political circles, the lessons it contains appear to have been missed or, worse, forgotten. The UN's report that loss of biodiversity is even more of a threat to business (at between \$2-4.5 trillion) than climate change seems to somewhat affirm both Howard's concern and McHarg's theory.

Howard also highlighted McHarg's emphasis on the interconnected nature of urban planning, food production and the rural economy, which linked neatly to the later talks by Geoff Squire and Mike Small. These topics will be discussed in greater detail in the next issue of the SEDA magazine, on the theme of Soil and Natural Capital.

The fourth of Howard's figures, Buckminster Fuller, was introduced with his quote: "Don't fight forces, use them" - a principle Fuller used to best effect in his innovative, resource-effective projects. Using the comparative examples of a termite mound and a modern, glass-walled building, Howard illustrated the difference between 'science rich' (complex) design that uses physics, biology and chemistry to best

effect without creating waste, and 'technology-rich' (complicated) design that works directly against natural forces (see images on front cover), resulting in waste, pollution and discomfort.

Herbert Dreiseitl, the German water engineer, will be the subject of Howard's fifth lecture. Known for his creative use of water - perhaps our most precious resource - in and around buildings, Dreiseitl's skills are amply illustrated in the mixed-use Prisma building, in Nuremberg, Germany, where water is collected from the roof and used extensively for irrigation, passive air-conditioning, water sculpture etc. before finally entering the drainage system. And, with a pause, it was here that Howard touched upon the notion of beauty; an aspect of design that we are all sometimes guilty of forgetting, particularly in the pursuit of 'energy-efficient' design, but which has the single biggest contribution to make towards achieving truly sustainable projects. After all, whether it's a building, an egg whisk or field of flowers, we all love something that is beautiful.

Barry Commoner, the sixth person in Howard's list, stood for election as US president in 1980 and wanted to restructure the US economy to conform to the 'four laws of ecology' (as written in his 1971 book, *The Closing Circle*): All Things are Connected; Everything Goes Somewhere; Nature Knows Best, and; There's No Such Thing as a Free Lunch. Taking the first 'law' as an example, Howard again stressed the importance of

getting right the process of understanding these links rather than simply focusing on the product.

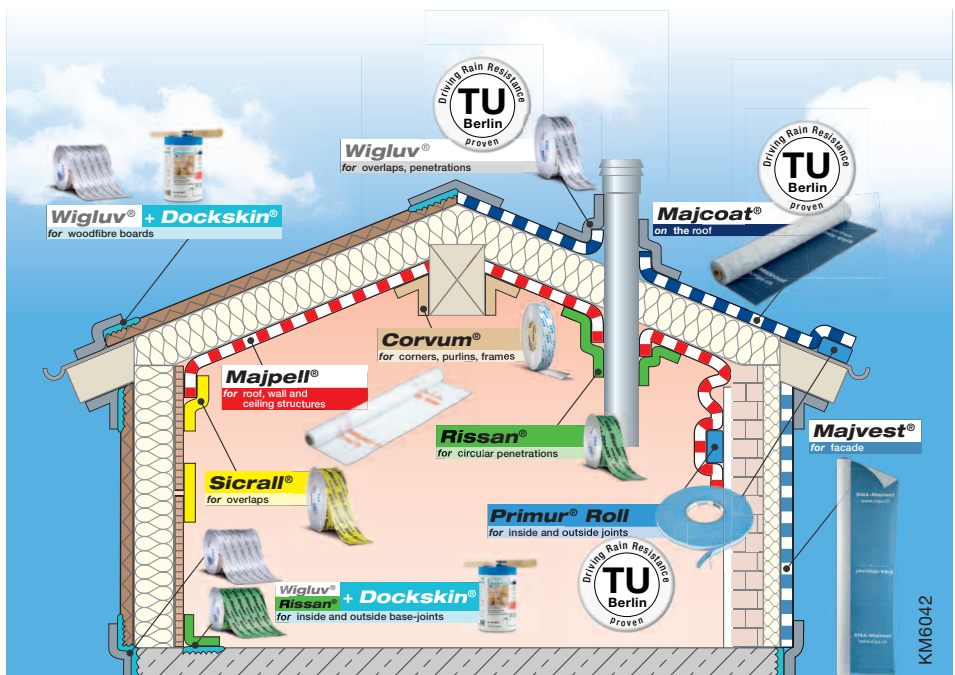
The final figure is Sherry Arnstein (1927-1997) who, in 1969, wrote about citizen involvement in planning processes in the United States, describing an eight-rung ladder of participation. Although less than ten pages long, *A Ladder of Citizen Participation* has been reprinted more than 80 times and has been translated into several foreign languages.

Those who have heard Howard speak before will be familiar with his direct approach and consistent willingness to openly question the status quo. Although climate change, CO₂ reduction and energy conservation are clearly important topics, it is just as clear that there are other, equally important, matters that urgently need to be addressed.

SEDA is privileged that Howard, one of its founders, will be launching the 'Eco Max' lectures through the association over the forthcoming months. It is planned that each will be accompanied by a launch event and synopsis in the magazine, and feedback on these will be warmly welcomed.

Presentation by Professor Howard Liddell, Principal of Gaia Architects, Edinburgh and founding member of SEDA.
Review by Sam Foster

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View from the Chair

by Paul Barham



“ You can have the most sophisticated, technology-enriched process and still end up with a duff product...” (Gary Clark, Project Director, Heriot Watt University)

This edition of the SEDA Magazine takes as its theme the relationship between Process and Product, building on ideas discussed and projects visited at the SEDA Conference in May 2012.

Politicians put undue emphasis on Product - think of GDP - and

business and public bodies are geared to outcomes and quotas, with a tick-box for each target to be met. In our society's obsession with the finished product the process of making and shaping is often obscured, and the lessons learned along the way forgotten. Even where there is a commitment to maintain standards, increasingly high-tech solutions demand increasingly complex and specialist support systems and our high-energy, high-maintenance lifestyle becomes more difficult to monitor and its failings easier to hide.


Understanding process is key to the ecology of design.

As designers we are deeply engaged in the cycle of problem solving and may take the process for granted - analysis, hypothesis, synthesis are grist to our mill. However we still need to make a conscious effort to find out where the products we use (and specify for others to use) come from and how they are made. This requires commitment at all levels - from individuals trying to find out about production processes, to legislation

and public funding for research and development and for monitoring.

The ecology of design includes also its converse, that of decay and dilapidation. Surveyors seem to be more aware of this when they estimate cyclical maintenance costs - while designers may be more focused on perfecting the product and perhaps don't like to think about its finite lifespan and eventual demise. This cycle of growth and decay is more readily perceived when we look at the environment as shaped by (and for) food production and where the cause and effect of what we put into the soil and what we take out are more visibly linked.

The projects and themes explored in this magazine put flesh onto the abstract bones of this duality and illustrate how important it is that we understand *process* if we are going to build and grow a sustainable future for our society.

Maybe if the political class could get their heads around a concept of Gross Domestic Process that would help us to develop and maintain a more sustainable economy..... 

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This Issue of the SEDA Magazine was put together by Sam Foster and David Seel. Sincere thanks to all who have contributed and to the various businesses whose advertising helps to support the magazine. While we hope you find the articles and features of interest we would point out that they do not always represent the opinions of SEDA.

SEDA AGM 2012: Programme

The Stables, Falkland Centre for Stewardship, Fife

Friday 18th May

10am: Guided tours of Kingdom Housing Association's Housing Innovation Showcase project, Dunfermline

1300: Welcome and scene setting: programme and project visits
Paul Barham

1310: Opening speech Robin Harper, SEDA Patron Where & how SEDA fits into Process & Product discussion

1330: Howard Liddell, Gaia Architects: Eco-Max - An Introduction to the C****n-free lectures

1400: David Thompson: a LA view and reflection on recent charettes in Fife; how useful and meaningful are they?

1430: The TREE Centre: Interpreting the clients' perspective - Richard Atkins, Architect

1455: Q&A

1505: Coffee

1520: Geoff Squire, James Hutton Institute: Balancing crop production, arable biodiversity & fragile ecosystems

1545: Dr Mike Small, An Introduction to The Fife Diet

1610: Closing remarks, Paul Barham, Chair of SEDA

1620: Depart for Markinch and Guided tour of TREE Centre

1900 onwards: Dinner at Pillars of Hercules Organic Cafe

Saturday 19th May

Learning from practice: AGM and tours

1000-1200: SEDA AGM business meeting

1230-1430: Arc Architects various projects: Falkland chapel renovations; Letham Park shelter.

1430: Loch Leven Bird Hide – Icosis Architects, Winner 2012 EAA Awards

SEDA would like to acknowledge the assistance of the staff at Falkland Centre for Stewardship for their help with the AGM.



Some of the AGM attendees
Photo: Paul Barham

From cost-effective...



Zero Carbon House photo: Martine Hamilton Knight/STO

Middlewich Estate, Crewe
Triangle Architects



Zero Carbon House, Birmingham
John Christophers architect

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More Process, Less Product? – Some personal reflections on the AGM

by Jim Johnson

More Process, Less Product, the theme chosen for the AGM, produced a strong sense of déjà vu for me. The process versus product argument was a big issue when, teaching in the 1960s, we had two guiding principles.

Firstly a belief that the quality of designs could be improved only if the process of designing was studied and rationalised, and taught logically rather than relying on “intuition” and the designer’s creativity. The traditional creative school fought back, pouring scorn on quasi-scientific methods, overlooking the fact that scientists too used intuition – that the scientific method was often one of leaps in the dark (conjectures) which are then tested against the experimental evidence and either disproved (refuted) or allowed to stand until superseded by a better theory; very similar in many ways to the designer’s procedure of iterative testing of design ideas against a

set of criteria

The second principal, held strongly by those of us involved in “Community Architecture” was that opening up the design process to include a building’s future users was the major step to improving the end product. We drew the distinction between sponsor clients – those who commissioned and funded the building – and the user clients, those who lived in the houses or attended the schools. Of course I’m talking about a period, now part of history, when there was still a public building programme; long before the advent of financial tricks like the private finance initiative, a period when there still lingered a belief that the public sector had an important role to play in society.

Writing about community architects at the time, Colin Ward said: *“What I find interesting about the new range of architectural heroes is that they are thought important for the process rather than the product. It is the way they go about their work which excites rather than the formal qualities of their work....”*

There’s no arguing that process is important and must affect the success or failure of the resulting design. But equally important is context. By context I mean not just the urban design or landscape setting (the planners’ mantra of “keeping in context”), but the whole economic, social and political context in which designers must operate. Of course we must operate within the constraints set by society – the regulations, the cost limits, the guidance notes. But many designers keep their heads down and work within these parameters, whereas I believe designers need to be aware of the contradictions – to see behind the everyday “reality” that tends to rule our lives.

For example it’s clear that for many designers, facing up to the challenges of climate change, peak oil, biodiversity loss etc. feel it’s adequate to work within the disciplines imposed by the latest regulations. These are not questioned. Whereas others, I guess most SEDA members, see a much larger picture of the challenges facing the world’s population, clearly articulated by **Howard Liddell**’s heroes in his proposed series of “carbon free lectures”. We need to look beyond the “enforced” legal parameters and try to confront some of these larger issues, which might be called the ‘deep’ context, and not just confront the issues as obstacles to be overcome, but to use them as inspiration for new design initiatives.


All Howard’s heroes demonstrate their preoccupation with this deeper context – starting from Patrick Geddes’ vision of mankind’s inextricable links with the natural world and our need to become part of it rather than try to master it, *“This is a green world, with animals comparatively few and small, and all dependent on the leaves. By leaves we live.”*

On Howard’s list, Geddes was followed by Rachael Carson’s early warnings about the dire effects of pesticides and other toxins on natural life, and Barry Commoner’s call for restructuring our economies. All questioned and went far beyond the official regulatory frameworks of their times.

In contrast the normal practice approach dominated the Housing Innovation Showcase (HIS) at Dunfermline visited by SEDA members en route to the AGM. Whilst praiseworthy for attempting some comparative tests of new-ish methods for efficiently building new housing, it stayed well within current practice and regulations (apart from a tentative shot at a Passivhaus). As **Duncan Roberts** says in his review of the houses *“None served to inspire let alone create an image of a home that might indicate that the 21st. century might be aspiring to anything different to the 20th.”*

Duncan compares HIS with the earlier SEDA visit to the 2010 Highland Housing Expo in Inverness, where he felt that architects and builder had tried to raise their game and devise some housing which might better suit changing social and family requirements as well as meeting the environmental criteria. My own thoughts went back much further – to Cumbernauld in the 1960s when the Development Corporation architects built radically new solutions to the problems posed by low-rise high density housing – privacy, sunlight (on steep north facing slopes), views, vehicular and pedestrian access, and landscaping. These were not pilot schemes, just designers getting on with building a new town as quickly and as well as possible, trying out ideas and learning from mistakes. Why were none of these 50 year old innovations apparent in the houses or the layout at Dunfermline? Why are our current aspirations so low? It’s not that we just fail to look beyond next week, we have forgotten much that was achieved in the recent past!

Many of the concerns of Howard’s heroes were brought up to date and nearer to hand when the AGM turned its attention to food supply and agriculture. First came **Geoff Squire** of the James Hutton Institute



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in Dundee, who gave a brilliantly clear account of his research into the loss of diversity and fertility in farmland as the result of changes in farming methods and land ownership. These were hazards few of his audience knew or had even thought about, but which may have fundamental effects on future food production. As a result of his eye-opening lecture Geoff has been invited to guest-edit the next issue of the magazine, for which the theme will be Soil and Natural Capital.

“...opening up the design process to include future users is a major step to improving the end product...”

The evening talk by **Mike Small** about the ‘Fife Diet’ – a voluntary initiative to promote the growing and eating of local food - looked far beyond our official dietary advice (such as 5 portions of fruit and veg. a day, never mind if it includes asparagus flown in from Chile!), and introduced the Fife Food Manifesto, which proposes radical answers to the current obsession with mass produced cheap food, integrating food into Scotland’s carbon reduction targets and linking environmental policy with well-being and health. The Manifesto also sets up simple practical targets, such as that no child should leave school without knowing how to make a pot of soup.

Tom Morton’s thoughtful contribution to the discussion touched on many of the themes that preoccupied designers in the 1960s and ‘70s but that have been forgotten in the subsequent long years of economic and societal neo-liberalism. His expansion of the architect’s role from producer of buildings to community enabler and catalyst revived memories of ASSIST’s early work in Glasgow, initiating and working for community-based housing associations, as does his praise for the passion, vision and commitment of his new clients.

Tom’s article has a lovely expressive phrase: “So if Architects have a role as choreographers as well as set designers in the theatre of environmental design, we need to redefine our product – we are merchants of change not sellers of buildings.”

“Merchants of change” would be a fertile ground for discussion within SEDA which I

would welcome. Tom’s views are persuasive, but could involve some drastic revision to the architect’s habitual methods of working and remuneration – some might say about time too.

I’m not alone in being deeply suspicious of the Scottish government’s enthusiasm for charrettes as a preferred part of the SSCI briefing process. I first came across charrettes in the USA in the early 1970s. From the evidence I saw they did not work then and no one since has addressed their fundamental problems; that they are too short term, they raise expectations which are often not met, the local community has no control over the resources necessary to implement the agreed proposals (however excellent they may be) and therefore no real power or control.

On Arnstein’s Ladder of Participation (another of Howard’s heroes) the Scottish government’s charrettes come in around rung four “consultation”, or perhaps rung five “placation”. To reach the next rung, “partnership”, Arnstein argues that “Partnership can work most effectively when there is an organized power-base in the community to which the citizen leaders are accountable; when the citizens group has the financial resources to pay its leaders reasonable honoraria for their time-consuming efforts; and when the group has the resources to hire (and fire) its own technicians, lawyers, and community organizers. With these ingredients, citizens have some genuine bargaining influence over the outcome of the plan”.

These conditions are not met by the SSCI charrettes, but were perhaps more successfully achieved in the Speirs Lock workshops described in David Seel’s article. Here a number of the participants were cultural organisations already established in the area, with technical and professional backup to hand and, crucially, with the resources to start implementing some of the agreed proposals immediately. These active stakeholders avoided the long hiatus between planning and implementation which bedevil so many charrette consultations.

What conclusions can we draw from the AGM? Firstly that the deep context – the range of environmental and social challenges that the world faces – must be integrated into the mainstream legislative and regulatory framework, so that designers and clients cannot overlook them and be content to just “meet the regs.” I suggest this will involve a change in attitude for

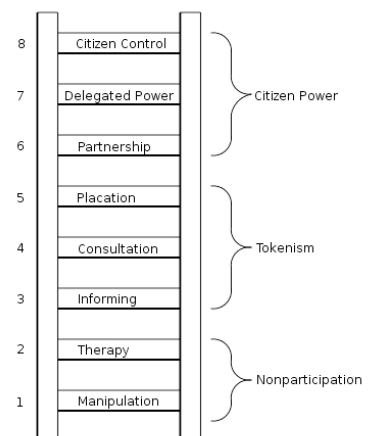
many and a general acceptance of a more eco-centric approach to design.

Secondly, if the Scottish government is serious about involving users more in the design process (which it appears to be, judging from the resources put into the SSCI charrette programme) then it must take steps to decentralise decisions about resource use and allow local communities much more control. As with the UK as a whole, in Scotland we have a ridiculously centralised governance structure. Without control over resources there can be no meaningful participation. Community initiatives such as social enterprises, development trusts and the asset transfer programme are all given theoretical support but often meet difficulties in practice. Their support must be prioritised.

Thirdly, SEDA must be unequivocal in propagating the broad view of sustainability whenever and wherever the opportunity arises. To assist those members, like me, who are a bit shaky on some of the issues, should SEDA attempt to produce some briefing notes (via the website) to share around the specialist knowledge which many members have – both knowledge of theory and of practical examples?

This idea springs partly from a new series of short publications called “Postcards from Scotland” to be published this autumn by Argyle Publishing (see <http://www.argyllpublishing.com/postcards.pdf>). Their rationale is stated as: “In the face of huge challenges.....we need to envision and enact a radically different future.” Could SEDA take a lead in its field of ecological design?

Jim Johnson is an architect and founder member of SEDA.



Arnstein’s ‘Ladder of Participation’



Options for inclusive masterplanning processes

David Seel (based on presentation by David Thomson)

Several projects were presented at the SEDA conference which use design processes to achieve

wider goals beyond the norm, and one of the most well known was the open urban planning Charrette process, as carried out in Lochgelly, Fife under the SSCI programme (discussed in the Spring 2012 SEDA Magazine). David Thomson, Lead Officer in Urban Design at Fife Council, gave an outline of how this was organised, by Andrés Duany and DPZ, for the Council and the Scottish Government. As a method of consultation^{1,2} used since at least the 1970s, DPZ's use of Charrettes is well-publicised, but there are other less documented routes to engagement in large scale design issues being trialled in Scotland.

David outlined the importance of communication in such processes to get a wider range of people involved for proposals like the expansion of Lochgelly. He was enthusiastic about what the Charrette has achieved: while he saw it as a pilot with elements that need to be refined, he felt it helped bring the urban design and planning processes closer together, particularly in the standards and coherence of the resulting vision for the town. He felt that local authorities are best placed to maintain an overview of all elements needed to deliver a large-scale design over several decades. At the same time it is also clear that when the process is centrally organised, the level of general engagement in the project is far from certain.

Direct comparison between different

development methods can be hard as their situations and aims differ wildly. While the Lochgelly Charrette sought to guide the future development of a whole town, two other ongoing processes described below address respectively: the growth of an urban industrial site using creative industries, and a community-led development to expand a rural eco-village. While neither is a typical situation, both are at the point where physical outcomes are starting to take place, and elements of each could be replicated elsewhere.

Social Innovation Workshop: Speirs Locks

Another approach is being trialled in the SSCI project at Speirs Locks in central Glasgow, just north of the M8 at Garnethill. This is a 14 hectare site containing a mix of early industrial buildings and more modern factories, owned by Isis Regeneration, with an approved masterplan and initial landscape proposals by 7N Architects (originally Make).³ In recent years Scottish Opera, the National Theatre of Scotland, and the Royal Conservatoire (formerly RSAMD) have all created new production bases or facilities on the site. The only housing currently on site is a converted warehouse on the canal basin.

The thinking behind the process is to drive change through the encouragement of people to create new social activities and businesses. As carried out here, the process was initially not dissimilar from Charrette workshops, but for a focussed group including developers, tenants or residents, local Planning and Enterprise groups, and local young enterprises from the 'creative sector'. While instigated by Architecture & Design

Scotland⁴, the client was the landowner, who was already involved with smaller arts groups on site. Invited specialists in Social Innovation led a sessions of 'group brainstorming' to find ideas for what Speirs Locks could be, if individuals and communities in the area were enabled to use its buildings and spaces. Led by social entrepreneur David Barrie, these ideas were boiled down into a strategic business plan, and is sum-

marised on his blog.⁵

The process largely addressed social and economic priorities: 'placemaking' through activities rather than landscape or architecture. The physical projects it produces may well be shorter-term installations, groups and companies, but any facilities will be well used as generated by those using them. This is a less consensual process, with 'social entrepreneurs' key to it, so it may well be that those with ideas and connections are prioritised over, say, residents. The developers and existing masterplan were already going in the direction proposed in the workshops and Gary Watt of Isis noted that through them "we made some new connections with great local creative talent, people we've gone onto work with and deliver events with together. The workshop also appears to have helped us cement some existing relationships between the existing cultural players".

It appears that maintaining project momentum may be even more vital in this type of process than charrettes, to keep a flow of people and ideas coming. Rob Morrison, who has run the Glue Factory arts centre at Speirs Locks, saw the highly spontaneous nature of development as difficult, in that it relies on individuals and voluntary groups working things out for themselves, and the required level of negotiations can sap good intentions. At present most proposals remain unrealised, but with the new Whisky Bond centre opening with flexible space for artistic bodies and start-up businesses, facilities are becoming realised which could be used for the plan to 'Grow the People' as well as the Place.

Community developer process: Findhorn Duneland

The process used by the community at the Park Eco-village, Findhorn, Moray (which includes the educational Findhorn Foundation) comes from within the community. As a rural eco-village with ecological and spiritual purposes⁶, it is not typical, but the project demonstrates what can be achieved. Development was carried out through a purpose made and separately funded company, Duneland Ltd, with community members taking key roles.⁷ The main aims were to provide additional housing and communal facilities, while preserving the highly valued local dunes on the site, within the consensual ethos of the community.

If the community takes charge, they must balance the freedom to run the process the way they want with uncertainty on how to



Speirs Locks: creative 'bazaar'
Image: Diane Edwards





*Integrated living at Dunelands
Image: John Gilbert Architects*

get it done. This is close to the German 'Baugruppe' model (see SEDA Magazine Spring 2012) in that priorities for the project are set by the group. In Findhorn, social and ecological aims were central, and the community had additional freedom through financial self-sufficiency, raising funds without banks through sales of company shares and deposits from future residents (with a list of potential residents already to hand). This is especially impressive as this covers infrastructure costs as well (helped greatly by past investment in systems like their own biological sewage plant). It took 15 years from instigation to construction, which reflects the time required to resolve land ownership and management issues, and for this relatively small group to find the resources and to get broad agreement for this major undertaking. Involved members had to work very hard to maintain momentum and coming to decisions was not always easy, even in a situation where the community had established organisational structures.

In outline, the process followed two stages dictated by Planning: the first, in which a 'masterplan' was developed to define basic strategic layouts and standards, was run by Gaia Architects, and only received Outline Planning approval on the basis of the exceptional self-sufficiency and community based approach; and the second, for which John Gilbert Architects (JGA) developed the proposals in more detail.^{8,9} Both companies set up collaborative design processes, the earlier phase with the wider community, and the latter a more focussed form of Charrette, involving members of the Duneland board and invited 'experts', to produce sketch layouts and designs. The proposals were regularly circulated through open meetings, and

the internet. On this basis a plan and outline specification were agreed for a first phase of clusters of low energy units, which cater for a mix of income levels and family types.

The deeply co-operative design process

If the community takes charge, they must balance the freedom to run the process the way they want with uncertainty on how to get it done.

probably made decision-making at times tortuous but established the desired acceptance. Jonathan Caddy, the outgoing managing director of Duneland Ltd, notes "the whole community aspect makes it more complicated but is also the strength of the project." Other groups would need to set up both forums for debate, and find representatives ready to take on such responsibilities. Both Caddy and Matt Bridgestock of JGA see that the project has created social benefits, both in the new accommodation and in how it has made the community think about what they need in the future, leading to housing that can enable supportive care for retirees, as well as affordable family units. Such decisions are normally only given to Planners, and taking this on can give communities purpose.

Ways forward?

While vastly different, all three processes demonstrate what can be achieved from wider involvement in design. All could be

seen as slow ways to build, but each process develops not only the project content, but also acceptance and ties within the community around the new proposal. All rely on intensive design sessions involving invited expertise, and the facilitators need to be both good at design and able to understand the issues of the participants, but their 'independent' standpoint can be beneficial. Workshops could either suck funds and effort from longer-term engagement, or could kick-start wider enthusiasm. There is always difficulty in maintaining this over long periods, and the process needs to be designed to maintain momentum to achieve results over long periods, without developing apathy or mistrust.

These examples can be sources of ideas from which parts can be taken in the future. The proof of success will be in whether the proposals prove to be useful when they are delivered, if ideas get overridden even when agreed, and whether the communities involved have grown with the physical renewal of their surroundings.

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David Seel is a freelance architect and has previously worked at A+DS.



Design: Crops, biodiversity and fragile ecosystems

Presentation by Geoff Squire (Review by Sam Foster)

Perhaps the most thought-provoking of the AGM, Geoff Squire's lecture began by posing the question of whether croplands in Scotland are designed or whether they "just evolve as a result of millions of uncoordinated and semi-random events". Starting around

5,000 years ago with field division, an unimpeded feudal system and virtually no over-riding strategy, the answer was that it very much appears to be the latter.

The reasons for this are, of course, complex but – particularly in the context of the AGM's theme of 'More Process, Less Product?' – of fundamental importance to every living soul: in simple terms, carbon-free though we may aim to be, if we cannot grow enough food to eat then at least some of the future population will not survive.

Where we are now

Geoff noted that there are a number of permanent factors acting to reduce the amount of food we may grow, including weather cycles, trade patterns, environmental catastrophes and population migration. However, as these are repeating events that can, to some extent, be foreseen there is an opportunity to take a much longer-term view of food production in Scotland and begin to think about what is needed to

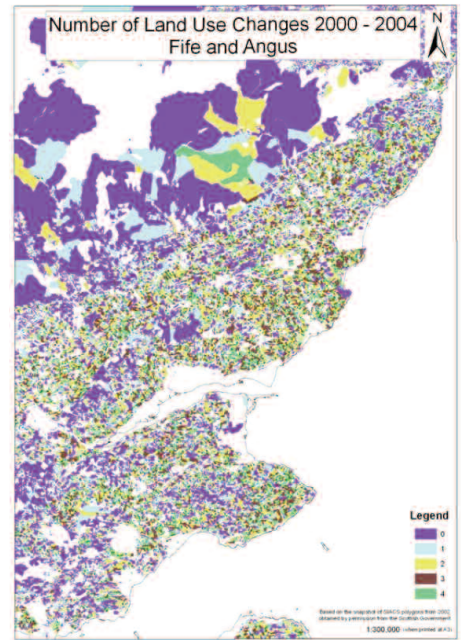
achieve sustainable agricultural practice.

Using a 16th century map of Scotland as a backdrop, Geoff noted that Scotland is generally split into two areas of production: grass (for livestock) to the north and west; crops (for humans) to the south and west, and that, curiously, crop yields and grass quality both increase towards the line. Going back much further in time, to around 3,000 BCE, the land used for this production was originally sub-divided into small-holdings for individual families. Despite fields becoming larger over time (with the loss of hedgerows and field margins) and crop types becoming blocked together across adjacent fields for convenience, unit sizes have tended to remain relatively small in comparison to the likes of the USA or Argentina, where field blocks dwarf even the most commercial operations in the UK.

In turn this means that a much higher number of individuals (i.e. land owners and land managers) are still involved in the decision making of what is grown, with the result that farmland in Scotland retains a relatively diverse range of outputs, which change over time according to economic and climatic factors. However, this large number of individuals also poses a number of challenges, making implementing strategic change, e.g. in crop type, pest control, management practices etc, very difficult. Additionally, perhaps one of the biggest challenges in developing a sustainable agricultural industry is the serious decline of the 'natural capital' of the soil, i.e. the quantity and quality of nutrients it contains.

"One of the biggest challenges in developing a sustainable agricultural industry is the serious decline of the 'natural capital' of the soil"

Geoff noted that such decline is the result of years of over-intensive land management, excessive disturbance of the soil and subsoil, increased compaction (by increasingly large farm machinery) and dramatic reductions in 'functional biodiversity', i.e. soil organisms that operate the carbon and nitrogen cycles, natural biocontrol agents (e.g. insects that eat crop pests) and pollinators. Put simply, it is the result



Land use changes 2000-2004, Fife and Angus

Image: Scottish Government

of how we farm.

Geoff also noted that most agricultural produce from Scotland is grown for uses other than feeding people, e.g. for animal feed, and the country relies heavily on food imports, particularly cereals¹. In response to this and other factors, there has been a steady increase in the number of enterprises specifically using local agricultural produce, e.g. for beers, oils, vegetables and fruit etc. [SEDA Magazine Summer 2011 included an article by John Hancox of Commonwealth Orchard, who help people plant Scottish fruit trees]. As well as cereals, Scotland also relies heavily on imports of soya-based animal feed from South America to the point where, according to Geoff, "the animal stock industry would collapse" without it – a particularly worrying statement when the ethical growth of soybean in South America has long been questionable².

How has this situation arisen?

Having such a large number of land units and land managers, as well as a distinct lack of a consistent strategy for food production over the last 60 years, means that farmers operate more or less independently and without any real reference to one another. In addition, agricultural regulation tends to push farms towards focusing on a specific product in isolation, such as livestock or cereals, without any need to understand how these fit into the bigger picture.



General split of grass and crop agriculture in Scotland

Image: Geoff Squire



Any policy that has existed has focussed on what is produced at any period rather than the processes used.

Although Geoff contends that the field of ecological building design is much more advanced than that of ecological agricultural design, such a lack of systems-based thinking is perhaps all too clearly echoed in the global rush, across almost all industries, towards zero-carbon when this is but a small part of the much wider subject of sustainability.

He suggests that over the course of the next century four main factors will drive agricultural systems in Scotland:

- *internal degradation of natural capital* - i.e. the extent to which soil quality continues to be negatively affected by farming processes, such as the use of herbicides on the non-aggressive weed flora and the field margin vegetation – which supports the food web of invertebrates – which in turn feeds on pests;
- *policy regulation* – on pesticide use, pollution etc;
- *global shortages of nutrients* – e.g. nitrogen and phosphorus for fertiliser, the production of the latter of which is in sharp decline; and
- *cataclysms* – major disasters such as volcanic eruptions or unforeseen sea level rise.

What is needed?

To address the first three of these factors Geoff's clear view is that a coherent framework for sustainable agricultural systems must be developed and implemented and that this needs:

- land owners and land managers to look in the same direction;
- consumers to change their food-buying habits in the same direction; and
- opposition to international markets that impose their own intentions.

Naturally such strategic moves will not occur overnight – it took, for example, 100 years for barley to overtake oat production in Scotland – but Geoff believes that policy and politicians are starting realise that there is more to agriculture than simply production and profit, and that 'ecosystem services' are gradually becoming part of political jargon. Despite significant resistance to the idea that productive farmland and attractive landscapes can co-exist, Geoff is upbeat about the possibilities for exactly this and showed an example of two Sri-Lankan tea plantations: one lush, well-

shaded, diverse in its planting and clearly very productive, the other monocultural, sparse, seemingly low in yield and with little future.

This and other, more local examples serve to illustrate that a different mode of thinking is possible. The prevailing, uncoordinated approach relies upon introducing a new crop based on the machinery available to process it. The alternative, systems-based approach asks the simple question "what do we want?" and considers how best to balance ecosystems services and outputs while enhancing biodiversity, and only introduces innovation as necessary.

"Without seriously changing current systems, the notion of Scotland being able to feed itself is out of the question."

Perhaps the biggest challenge is that the alternative has never been implemented on a national scale. Geoff illustrated the results of a simulation carried out by the James Hutton Institute to try to find out what effects such a radical move would have by modelling different scenarios. These suggest that if further loss of cropland biodiversity were halted immediately, current production would reduce by 70%. In other words, current systems of production rely upon the destruction of cropland biodiversity to achieve their output! In addition, to begin to achieve anything like a sustainable agricultural system it is vital that a move is made away from mineral nitrogen fertiliser, but this would result in a drop to output of between 50-70%.

The net result is that, without beginning to seriously change current systems, the notion of Scotland being able to feed itself is out of the question. Despite such a seemingly bleak picture, Geoff is unambiguous in his assertion that there is more than enough knowledge and experience to address the various issues and develop a new, systems-based approach to agriculture in Scotland. He acknowledges that until the big players begin to move – whether voluntarily or by force of legislation – implementing such an approach will be much more of a challenge, as it is not in their interests. His lecture ended with a



Vital reading: <http://uknea.unep-wcmc.org>

Source: UK National Ecosystem Assessment

cautionary plea: although policy is slowly moving in the right direction we can't wait for this before starting to make our own steps.

Sensing both the fundamental importance of this subject and the fascination of the audience at the AGM, the next issue of the SEDA Magazine will be guest-edited by Geoff and will explore 'Soil and Natural Capital' much further.

References:

1. Bread uses flour from wheat grown in England, Europe and farther afield (most wheat in Scotland is used to make alcohol products). Pasta is made from durum wheat grown in south Europe and elsewhere. Rice is imported from all over the sub-tropics and tropics. Maize comes from south Europe and North America. Oat is the only cereal grown and consumed in Scotland in large amounts. Source: James Hutton Institute
2. Refer Friends of the Earth's 2008 report 'What's feeding our food?'

Professor Geoff Hutton works at the James Hutton Institute in Dundee, which is an amalgamation of the Macaulay Land Use Research Institute and Scottish Crop Research Centre, and world leader in research into the global challenges facing land and natural resources.



If this is the Product, what was the Process?

Review of SEDA's visit to the Housing Innovation Showcase, Dunfermline, by Duncan Roberts

SEDA's outing at this year's AGM to see the new housing project built by Kingdom Housing Association (KHA) in Dunfermline provided an interesting comparison with the group's trip to the Highland Housing Expo near Inverness in 2010.

The earlier visit showed Scotland's attempt to mimic the ambition of the Scandinavian model of the Housing Fair in which a city or region takes its turn to host a built project of new housing that allows the development and demonstration of new ideas incrementally over a rolling programme of annual events.

The Inverness experiment appeared to be trying to pack several years worth of such schemes into a single one-off show. The result looked a bit of a chaotic jumble with too many disparate house types arranged around an uninspiring road layout. There was, however, a sense of a wide range of architects and contractors trying to raise their game and sparking ideas off each other. Had anyone involved got the energy left at the end of the experiment to repeat the exercise – as the Scandinavians, of course, do – then the whole thing could have developed into something important. Such a programme might have grown in the

decades to come into a truly innovative initiative in the field of housing and one that would have provided inspiration and example, not just throughout Scotland but across a much wider arena.

Instead, we have the Housing Innovation Showcase, being built in two phases on the outskirts of Dunfermline by a consortium led by KHA and designed by one firm of architects but using ten different construction systems developed by eight different contractors. To compare the two approaches is, of course, unfair but they do serve to illustrate the direction of travel within publicly-funded housing in Scotland, particularly as the Inverness project was initiated in the pre-bust time of plenty and the Dunfermline exercise might be seen to represent a post-boom austerity model.

The initial appearance of the development at Dunfermline did not inspire great expectations of what would be found inside. The poor weather on the day of the visit didn't help but the uniformity of the external finishes, the ubiquitous plain grey concrete roof tiles and the same old doors and windows that only Housing Associations seem to use sent out an immediate message as to the limitations of the exercise. As with Inverness, and despite claims of design collaboration with local schools and colleges on the external spaces, the road layout dominates the site and still seemed fixated with the convenience of the car driver rather than for the majority of the estate's users. Any self-respecting private developer wanting a good return would have mixed up the colour palette a bit and introduced a modicum of variety into roof

finishes in an attempt to soften the inevitable rawness of a new development. Although town-planning theory is still struggling to emerge from the Brookside Close it is possible to plan new settlements that have a variety of outside spaces that provide shelter, privacy and a sense of collective identity. These qualities were sadly lacking in the quaintly named Dunlin Drive.

As for the houses themselves, only six of the 10 types were visited so we may have missed some gems but of those visited none served to inspire, let alone create, an image of a home that might indicate that the 21st Century might be aspiring to anything terribly different to the 20th. It would be useful to know if the house designs represent the accumulation of KHA's years of design development. Inside, the completed houses displayed very little of their inner workings, apart from the occasional cupboard stuffed with mechanical ventilation hardware, though mock-ups of sections of wall construction were generally on display in the houses which allowed some investigation of the techniques and materials employed.

Against criteria that SEDA members might hold dear - the use of local, natural, healthy materials needing little processing, vapour permeable but air-tight construction, flexible and adaptable designs - there was little in the Housing Innovation Showcase that indicated that these issues were being either acknowledged or addressed. Only two of the houses used Scottish-grown timber and only one - the Future Affordable house - had insulation made from anything organic (in this case textile waste). The dominant solutions offered were variations on SIPS panels using blown, oil-based insulation. Vapour permeability seemed low on the agenda and so timber treatments remain as standard. The use of low-VOC paints, stains and floor finishes to improve working conditions during construction and living conditions thereafter may have been part of the package but were not evident in the literature seen.

Of the two non-framed constructions used, one used an imported hollow clay block and the other the 25 year-old Beco system, which is fine except that it puts the thermal mass between two layers of polystyrene insulation where it is of virtually no benefit. In terms of an holistic Scottish-focussed display of possible construction methods the event left much to be desired.

Of those visited only one house type



Housing Innovation Showcase: draw your own conclusions
Photo: Sam Foster



allowed the use of the roof space for future expansion, despite this being a straightforward and obvious measure for all new housing, whether publicly funded or not. That this was achieved by the use of an enormous steel ridge beam was interesting.

Prevailing economic reality is that companies get tax breaks for investing in equipment whereas they get taxed if they take on staff, so any sensible firm, whether in construction or not, invests in machinery rather than people.

The primary focus of the choice of technologies used seemed to be in maximising off-site fabrication thereby following the mantra of the Modern Methods of Construction (MMC) approach promoted by Egan and others. This is all well and good and does, no doubt, increase the likelihood of higher construction standards being achieved. However, there is a counter argument that says that by promoting investment in the mechanization of building construction off-site there is a corresponding deskilling of the construction workforce generally whilst driving up the overhead costs represented by premises, equipment and specialised heavy lifting gear. Ultimately, construction is an activity that takes place outside and is subject to the vagaries of the weather, so having a workforce that is skilled at responding to these circumstances and rewarding them commensurately could be seen as a better investment in the long term. This is particularly the case where these skills need to be applied to the refurbishment of the existing housing stock. The prevailing economic reality is that companies get tax breaks for investing in equipment whereas they get taxed (through their Employers National Insurance contributions) if they take on staff, so any sensible firm, whether in construction or not, invests in machinery rather than people.

The one aspect of the scheme that deserves acknowledgment is the commitment to on-going monitoring. Kingdom Housing Association should benefit from the accumulation of data from not only this but

subsequent developments. Even here though caution should be exercised: by commissioning small numbers of a wide range of construction types the subsequent comparisons between them will prove tricky to calibrate. It will be fascinating, for instance, to see how the solitary Passivhaus compares with its neighbouring control dwelling. Unsympathetic tenants in the former who leave their front door open whilst checking their (external) mailbox might end up with no great improvement in performance over a naturally frugal family next door who wear more layers in the winter and avoid too many energy-sapping gadgets around the house. It may be assumed that lifestyle and an understanding of the management requirements of a property are of more immediate benefit in reducing energy consumption and CO₂ production than anything intrinsic to the systems, design or specification of the building. KHA's use of focus group seminars to select the tenants for these houses and inform them of how to optimize their use seems like a sensible step towards addressing this issue and will help KHA to confirm or deny this in time. It is in this long-term monitoring that Process starts to influence Product on the basis of gathered data.

The final aspect of the development that did not live up to expectation, especially given the subject's prominence elsewhere in Fife, was the lack of apparent space for growing fruit and vegetables. It may be that this has been allowed for in later stages of the scheme but the private outside spaces

attached to each house seemed fairly shaded and limited in size and no communal allotment areas were evident. This provision could have formed part of a richer design strategy for the site as a whole and helped remove the overriding sense of groups of houses in a sea of tarmac that remained at the end of the visit.

Despite all the above Kingdom Housing Association and Fife Council should be applauded for taking on this challenge and, perhaps, showing us all that providing good housing in the 21st Century remains as difficult as it has ever been and doing this in the present economic climate even more so. If neither the over-stuffed pudding that was the Highland Housing Expo nor this far more modest but disappointingly thin broth fail to satisfy then the task remains to find a way to not only come up with the ideas (which SEDA members have plenty of) but also how to deliver in sufficient numbers and to the required quality and cost to meet Scotland's housing needs. It has been done before in times of financial stress when the councils and Scottish Special Housing Association built innovative houses in their thousands. Perhaps this crisis will become the opportunity that is required to bring partners with vision together to start to create the Scottish home for the epoch to come.

Duncan Roberts is an architect who works with community groups to develop their ideas for building projects and see these through to completion.



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More Process, Less Product: the Creative Person's Role?

by Tom Morton

If medical science has been a forum for the development of ethics over the last 20 years,

in part because of the personal interest we all share in health, then the ubiquity of the built environment makes it, alongside the consumption of food, a key forum in the development of sustainability. The full potential to contribute will only be realised by creative responses in both processes and products. As an architect, I confess that we have a natural inclination to think too much about buildings. We are taught at university how to make them beautiful and efficient, and we are trained in practice to deliver them through a rigorous technical and professional process. Very rarely are we required to go beyond the *What?* and *How?* to ask *Why?* Some are naturally inclined to, and SEDA is a home for many such difficult and visionary people. Over the last 10 years, Arc has increasingly gone over this professional parapet and worked in unfamiliar terrain, through more fluid and less certain processes, to try to contribute better and more meaningful work.

Using a few projects as examples, I will try and explain why a more creative focus on processes and fewer, better products, could allow architects to contribute more towards a sustainable society.

The Secret Garden & Letham Shelter ¹

About 10 years ago we were asked to look at a design for a new building for The Secret Garden, an award-winning nursery on the Scandinavian model of doing everything outside (motto: 'there's no such thing as bad weather, only inappropriate clothing').

The group was developing into a Social



Letham Park shelter
Photo: Arc Architects

Enterprise and had to comply with a host of bureaucratic requirements written on the assumption that nurseries are in buildings. So an accessible, low impact development with toilets, a kitchen, storage, with parking, first aid, office, signage, drainage, phones, etc etc... Up till then, they were based at the leader's house, next to the woods. The children met in the garden and spent the day in the woods. Occasionally, in very wet weather they would gather in the house. Growth, and the leader moving house, drove the need for change. The only site that was available was a mile from the woods, which would necessitate a minibus.

Optimising the relationship between people and place, with minimal use of resources, must surely be the core of a rational approach to design of the built environment.

We came up with a sketch design for an open timber building, which worked technically and would cost about ¼ million pounds. It answered the brief but somehow it wasn't the solution. It took the spirit of the group away from what defined them - closeness to nature and treading lightly on the earth. They knew that a den the children created themselves would have more productive outcomes than anything a contractor could build. The proposed product would change their processes in a way that increased their capacity and resources, but diluted its meaning. The team re-thought and came up with a much better solution, one that focused on developing processes and relationships rather than material stuff.

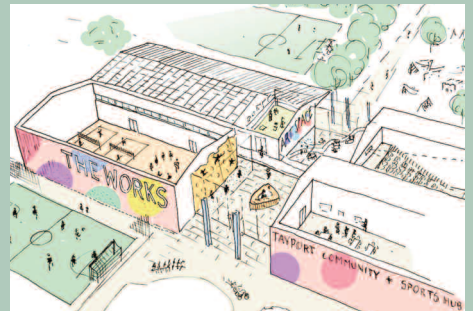
A deal was brokered where the nursery's registered location (which legally has to be a building) was the village hall, ¼ mile from the woods. An arrangement was agreed under which the nursery never spends time in the hall but makes a small donation to its upkeep. Parents park at the hall and children assemble in the park next door, before walking to the woods through the village. One by one, the nursery's technical needs; health & safety, toilets, etc, were provided for without resorting to building. There was a close call when the Care Commission would not accept wipes as adequate for cleaning hands, requiring

sinks in the woods, until it was demonstrated that hospitals use wipes because they are more hygienic. The final thing we could not escape was a gathering space, so we replaced the old park shelter with a new building of clay and wood, which was built by local children and parents working with a local builder and Arc.

You don't get prizes for designing-out the need for things like this, but it is a creative design skill that is sorely needed: a design process that focuses first on the activities and processes of people in places, then followed by consideration of physical fabric. Optimising the relationship between people and place, with minimal use of resources, must surely be the core of a rational approach to design of the built environment.

Tayport Community Trust ²

The multiple challenges facing the community of Tayport in Fife include socio-economic, health and public facility deprivation. They are the community in Fife most threatened by climate change, and are predicted to lose 286 homes and 80% of their greenspace to sea-rise within 20 years. The community is responding powerfully with a diverse partnership initiative to convert a derelict steel works into a sports and community hub that will promote well-being, culture, employment and tourism - a keystone for wider environmental improvements linked to coastal realignment. This is the most ambitious example of a series of initiatives by Fife communities to take leadership over the future of their environment, supported by Fife Council.



Tayport Community Trust - Community Hub

Image: Arc Architects

With need growing and local authorities' capacity shrinking, austerity favours lean and imaginative cross-sectoral approaches. Communities are well placed to deliver these through creative processes that go well beyond simply designing buildings as products. At Tayport, 16 different local



groups are actively contributing to the process. Diverse outcomes respond to such diverse needs, fostering social cohesion and broad supporting partnerships, but vitally retaining control within the community. Big ambitions and volunteer capacity are an uneasy combination for bureaucracy, and funders and authorities are struggling to adapt their processes to the character of projects truly led by communities.

Laikipia Learning Centre ³

There are, of course, many different kinds of communities. A geographical community has clear defining parameters, but communities of interest can encompass much more challenging diversity. Arc is currently working with Aspire4Africa on a third sector project to create a centre for training in business, health, land management, construction, and nature conservation in Kenya. The challenges of building in a different culture and environment are matched by a process that will transfer leadership from UK-based partners to Kenya-based ones through the course of the project. Working on a project whose outcomes are sustainable development, through innovative partnership learning, is both resonant and challenging for Arc.

Africa is littered with inappropriate buildings and failed initiatives, and designing the process right goes hand in hand with designing the building: two sides of one coin, so that process and product are one thing. If the team (of which we are one small part) gets the process right, we will make a great building and a great organisation, which will deliver great learning to foster societal change.



The CaRB Project ⁴

People and places are inextricably linked. In our local energy saving project (Best Green Community Initiative 2011), 22% of the carbon savings was directly attributable to behaviour change. It is very easy to treat buildings as objects in the carbon saving game, but buildings are machines for living in and lives are complex and diverse.

Money saved through insulation will readily fund an extra holiday flight.

Changing peoples' minds is as important as changing their buildings and we must develop tools of advocacy as well as their technical fixes and administrative schemes, if we are to contribute effectively to a process of transition towards sustainability.

A Facilitating Role

Our role in all of these projects has been firstly one of brief development – helping the client really work out what their needs were and developing a strategy for providing them – followed by designing a building if required. For the Secret Garden project, the outcome was growth and change in the way the nursery operated, a deepening of their connection to the community, and learning through making for the families and staff. The output - making a new building shared with others and increasing the use of the Hall – was secondary.

In facilitating this sort of process, rather than leading it, we work hard to keep 'ownership' vested in client organisations; it's their project not ours. Growth from the roots can be slow, but fosters long-term success. Speed reflects client capacity more than that of funders, consultants or contractors. Nurturing organisations is an important outcome from the process, because they are inevitably growing in human terms at times when they are seeking physical development. In this way, by the time a building is completed, the organisation understands it and has the capacity to use it successfully – because they have been active core partners in its creation process.

An architect's skills encompass detailed technical understanding across a range of disciplines, creativity, and high-level strategic thinking. Combined successfully, these can place the architect in a transformational role within the project team, but as a facilitator rather than as a leader – empowering people to change their places, and changing their community as a result.

Alongside many other individuals and pro-

fessions, architects are trained to see diverse possible outcomes and strategies from any given situation – the ideas and vision that clients traditionally come to an architect for. Some can expand this from buildings to a societal level, combining social environment with built environment, operating through influence rather than by authority.

“...we are merchants of change, not sellers of buildings...”

Arc's buildings all look different because they are individual responses to diverse briefs and environments: different products from the same process. In my mind, I now understand our role as Environmental Architects to be one of transformational change – changing people's experience in place and time, rather than creating objects *per se*. If architects can be performance artists as much as sculptors, choreographers as well as set designers in the theatre of environmental design, then we need to redefine our product: we are merchants of change, not sellers of buildings.

Don't get me wrong - I love buildings and I love designing them, I just find that now some of my most creative time is spent talking with people rather than drawing. Buildings can inspire and improve peoples' lives through their physical fabric, but it is the effect on people that is the important thing, not the thing itself. And the fewer things we need to deliver quality and meaning in peoples' lives, the better designers we are. Humbled by the passion, vision and commitment of the partners we work with, I find this a very creative space and time to operate, though the terms 'work' and 'architect' are an increasingly loose fit. Creative people have a great contribution to make to the changes we all need to see in Scotland's places and people through the next 20 years, and this will only be done by addressing both processes and products.

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2. www.tayport.org.uk/tag.php?id=4
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Tom Morton is Principal of Arc Architects, based in Cupar, Fife.

Food and Cities

Lecture by Carolyn Steel (review by Andrew Guest)

Carolyn Steel delivered the Royal Town Planning Institute Sir Patrick Geddes Commemorative Lecture in Edinburgh on 8 June 2011.

Her book, *Hungry City*, was published just over 3 years ago. In it Steel, an architect who is as passionate about food as she is about the form and nature of cities, spells out the intimate connections between the development of cities and the development of food, and argues that this relationship has reached a crisis point.

The book has provoked a tsunami of interest; since 2008 Steel has averaged nearly 30 appearances a year talking about the book's ideas (including 3 already in Scotland) to audiences as varied as Local Authority Caterers, University Architecture Schools, Food Business Schools, City Councils and Book Festivals, and as global as the on-going ideas conference TEDGlobal. *Hungry City* has already been translated into both Dutch and Chinese - no particular rhyme or reason here but with the Dutch being some of the most sophisticated agriculturalists in the modern world and the Chinese heading to be the hungriest civilisation of all time, perhaps not without sense.

Steel was in Edinburgh in June last year to deliver the Royal Town Planning Institute Sir Patrick Geddes Commemorative Lecture, to an audience largely of architects and planners. With a sprinkling of food activists also present, her talk prompted the question 'Are her ideas about food or about cities?' It's self-evident that food and cities are connected – cities are where the majority of

people live and, well, to live, people need food. Cities were founded when (and usually where) adequate food supplies could be secured, and food shaped the form of cities, with the main routes into the heart of the city often being the 'food routes' of animals from the hills, grain and vegetables from the fields, and fish from the ports. The markets where food was bought and sold often constituted the physical, social and spiritual centres of city. In Edinburgh all these traits of urban development are still visible. Steel describes and illustrates this complex picture clearly, even in her 'short' 50-minute lecture.

By 1905 when Patrick Geddes first drew his famous 'Valley Section' to illustrate the mutual relationship of people and places in the development of civilisation, the growing power of railways and steam-ships and ice-factories to ship fresh food from far away had already started to unpick the relationship between city-dwellers, their regional hinterland and their food. But Steel points out that human consumption had long reached beyond its locality. Rome not only needed its empire to find enough grain to feed its million inhabitants but used this empire and its naval power to supply its citizens with foodstuffs from all over the Mediterranean – plus oysters from the Firth of Forth. There's nothing new about shellfish being landed in Scotland and mostly eaten in Spain.

But what has changed? Steel is excellent on her history but, unlike many historians, she can also bring her arguments and observations through to the present day, able to analyse the true cost of a high-street hamburger as easily as that of a Roman oyster. What's new today is that we now have a food system which has both outstripped our ability to comprehend it, and left us more ignorant about and less connected to the source of our food than at any time in our history. And this has its costs. In land degradation, oil consumption and over-use of chemicals, our food system is now playing a major part in sucking dry the earth's resources and over-heating the atmosphere, without even considering what it is doing to the average income of farmers growing food. And yet for all this cost, and despite claims of the system's great efficiency and the 'cheap' food it is supposed to deliver, this is a system that creates 'food deserts' where fresh food barely reaches parts of our major cities, which has contributed to over one billion of the world's population

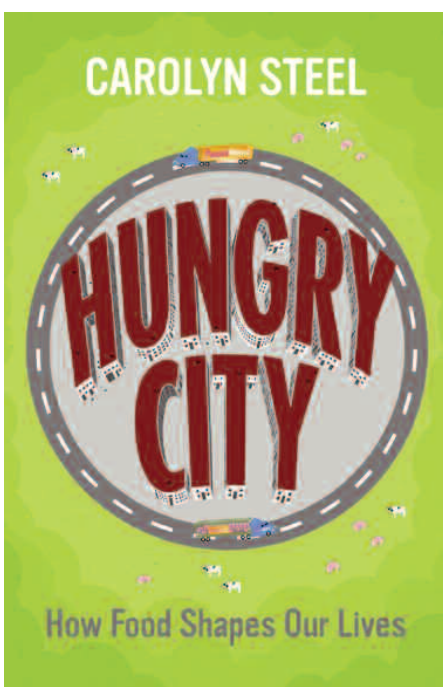


The problem of food deserts is not that there is no food to eat at all, but rather, that fresh, affordable and healthy foods are more difficult to obtain than fast food or pre-cooked meals. (Image: www.change.org)

becoming obese, and another one billion still hungry.

The reasons for this wasteful and unjust situation may be complex, but Steel points out that another significant new aspect of our food system is the degree to which food has been privatised. The public authorities (and therefore us) who, because of its importance to public health once regarded the supply of food as a vital trade, have abandoned most of their role as regulators to the market. Sounds familiar? As a result, the global growing and supply of food is now controlled by a handful of large companies, and in the UK 76% of our food reaches us through five supermarket companies. Steel points out the power this gives the largest of these – Tesco, who take one of every three pounds spent on food in the UK – to affect not only our diet but also increasingly the shape of where we live, both through their destruction of local retail market and their aspiration now to build not just stores but also houses and town centres.

“Oil consumption and over-use of chemicals in our food system is now playing a major part in sucking dry the earth's resources”



The big question is whether this system has also outstripped our ability to change it? Steel's injunction that we should 'see our cities through food' and her concept of 'sitopia' (food place) gives us a handle to begin to grasp the immensely complex issues involved – whether you look at food or at cities – and break this down into achievable ends. And this is where the many audiences Steel has attracted need to come together. The rapidly developing local food movement is beginning to create more food which is grown locally and to re-connect people with their food. Planners and architects can support this movement through planning policies that allow for access to land for growing and which encourage a diverse, not a monolithic, food retail culture, and urban development and transport systems that support that. Politicians can show leadership in defending this kind of sustainable, public urban culture from the dominance of a handful of corporate interests who have profit rather than public health or sustainability as their main motive. While this should be applied on a place-by-place basis, regional, national and

international policies are also needed to support this, with elected representatives and official bodies in-tune at all levels. But the main message is that how we live and what we eat are important, are connected, that both are threatened by a global, privatised, profit-driven monolithic culture, and that interests need to combine at all levels to combat this.

After Steel's lecture most of the audience were rightly hungry for more. Much of her passion, directness and humour can be picked up in her blog www.hungrycity-book.co.uk, which documents a continuous exchange with a variety of interested readers, and the places and people she meets on her research or speaking trips, including food networks in Holland and the USA. She also delivers an annual 6-part lecture series in the University of Cambridge. For me, the next step is to read the book.

Architects and planners can make connections with food activists on a Scotland-wide basis at Nourish (www.nourishscotland.org.uk), and on an Edinburgh level at the Edinburgh Local Food Network (www.edinburghfood.org).

Other references Steel made in her talk include:

- Peter Menzel's book *Hungry Planet* documenting in photographs what people eat in different cultures.
- The work of Growing Communities in Hackney and in particular Julie Brown's Food Zones concept
- The Urban Design Lab's New York City Regional Foodshed Initiative
- The London Development Agency's policy 'Healthy and Sustainable Food for London'
- The New York City Council's Food Works programme
- Toronto's Food Policy Council
- The ideas of Jan Willem Grievink and his concept of Food Chain Consolidation

Carolyn Steel writes regularly on food, architecture and urban design, has presented on BBC TV and was a columnist for Building Design.

Andrew Guest writes case studies, building and exhibition reviews and commentary for leading Scottish architecture websites, as well as other organizations and magazines.



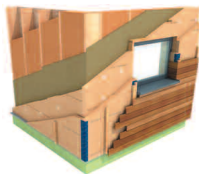
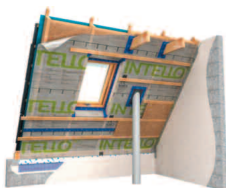
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