

The Scottish Ecological Design Association Magazine

Autumn 2013

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Are cities green?



RE-VITALISATION OF SEDA RESEARCH

It has been a tradition at SEDA for its members to either contribute or be part of advising and informing Scotland on topics and new criteria that relate to ecological and environmental matters in the built environment. That tradition had a small dip in contribution and kudos due to funding and a re-shuffling in our structure and it was of great concern to many members.

As an attempt to re-vitalise this, a Research Committee was set up which presented proposals at last May's AGM to bring SEDA research back into the limelight, by promoting research and innovation within our membership, and if possible to have the opportunity to obtain funding to produce more design guides or research papers.

The aim is to compile and disseminate research from a wide range of sources, preferably work produced by SEDA members but also to highlight (and why not, scrutinise) work by the public, communities, other professions and policy makers. One way of doing this is by bringing out new design guides, to contribute to policy and be better recognised by the Scottish Government (through debates & consultations). Also central to this will be the production of articles for magazines and journals, and collaboration in knowledge transfer. There is a drive to become partners in future European funding competitions for example EPSRC or Horizon 2020 bids.

At the conference, recognised members like Sandy Halliday proposed the creation of drop-in sessions to help people on matters related to the built environment were crucial to progress on any future research. She also suggested staging a series of 'carbon free' lectures under the ECO-MAX theme conceived by the late Howard Liddle.

Already on the agenda is a SEDA Research event in Spring 2014 and to start asking speakers from ongoing SEDA events (Annual Show & Tell, AGM) to produce written papers to build an archive of talks.

Finally, the purpose of reactivating the Research chapter of SEDA is to get all members involved and to create avenues to facilitate and obtain opportunities. Any SEDA member interested in collaborating and sharing on this topic should please contact either Julio at jbw@eh-3dstudio.com or Anna at Anna_poston@yahoo.co.uk.

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SEDA NEEDS YOU!

SEDA is incorporated as a Company Limited by Guarantee and has Charitable status. Decision-making for SEDA lies with the Directors, who meet regularly throughout the year for discussion and to plan a programme of topical and lively events to help stimulate the progress of ecological design thinking and action. Planning of these events has previously been managed by a grant-funded Development Officer. Unfortunately this funding has now lapsed and SEDA is now solely reliant upon the generosity of individuals, organisations and companies in order to achieve our objectives and contribute to running events.

To ensure we can continue to inspire and lead the way in ecological design thinking in Scotland we have created a Development Fund and need generous donations.

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Thank you.

SEDA was formed in 1991. Our primary aim is to share knowledge, skills and experience of ecological design. SEDA is a network and links those seeking information and services with those providing them.

SEDA has currently around 400 members predominantly in Scotland. Members include academics, architects, artists, builders, planners, students, ecologists, landscape designers, materials suppliers, woodworkers, and many more whose work

or interest is concerned with design for a sustainable future.

SEDA is a charity run by a Board of Directors who are elected at Annual General Meetings and who meet every second month. SEDA is made up of a series of groups, each with a separate objective.

All of these groups are run by SEDA members - if you would like to be part of a group please get in touch by emailing info@seda.uk.net

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Nick Domminney
&
Chris Stewart



EDITORIAL

Don't Greens Hate Cities?

Statistics on urban growth are numerous. The World Health Organization inform us that half the global population live in cities and by 2050 this will increase to two thirds. As measured by Wikipedia, the population of Shanghai, our biggest city, is measured as seventeen million but the United Nations estimate it closer to fourteen million, this is a difference of Ireland. While the Global Footprint Network top them all, letting us know that our current rate of global consumption is one and a half planets, while we will need five planets to survive.

The prevailing image of ecological design is one of rural tranquility and, although much of the rural is a result of human endeavor, virtually everything in a city is designed. With the now acknowledged fact that more people live in cities than anywhere else, a figure which continues to escalate; ecological designers have to set their sights on the urban.

To consider such a complex topic is beyond the capacity of this magazine, and we can only scratch the surface. This edition is arranged as a loose conversation between some of our leading urban thinkers and practitioners, each of which were asked to tackle a specific question. In the background SEDA have pondered more widely to ask, where do we want to go, how can we get there and will we do it right?

The initial exchange is kicked off by Mark Cousins, to ask where has the modern city has come from. He mixes to his thoughts a wee flavor of diversity and the urban creation myth. This is picked up by Jonathan Charley to make an uncompromising, hard, dystopian, political, challenge to the green movement in his response to "are expanding cities the future?". This is in contrast to the utopian view of the late Paulo Soleri, and Arcosanti's Jeff Stein and visiting professor David Grierson, who deliver a comeback to the question 'are new cities the answer?'. Glasgow's own Matt McKenna explains how architectural practice Dress for the Weather can get there and make existing cities more ecological, through a study of current projects. Owen Hatherley, longstanding Guardian architectural columnist, offers strong support to those more skeptical of the ecological city, discussing how we should regenerate our cities, in particular the merits of so called 'green redevelopment'

through major events, such as the London Olympics and the Glasgow Commonwealth Games.

Michael Collins is more than willing to take ecological development further, to inquire how we can make cities feed us and the capacity of such urban agriculture. Following that, it seems reasonable to ask the question how cities work and what infrastructure is needed to sustain them. Collective Architecture have insight into Glasgow's water management and services backbone, and their director Jude Barber, looks at how infrastructure can help or hinder urban society. Gaia's Chris Butters brings the debate right up to date with an outline of their 'ecocity', Tainan in southern Taiwan, setting it the context of Geddes' analysis of Place, Work and Folk. Assuming that we do actually need to analyse cities, is there such a thing as 'urban ecology' and, if so, can we live ecologically in today's cities? John Newton, of the Ecology Consultancy, echoes Chris Butters' concept of 'sustainable human habitat' in outlining the ecology of cities. Finally Pidgin Perfect's Becca Thomson takes a fresh, youthful, energetic, sideways glance at urban interventions and how people can take control of their own cities.

Cities are our future and that challenge needs a common vision. SEDA have asked some questions and been given some great answers, but they are only a start. We hope that we have begun to dispel the assumption that 'Greens hate cities' and with an escalating urban population, we can all work together to make our cities more ecological.

Chris Stewart is a director at Collective Architecture and Vice Chair of SEDA

Nick Domminney is a director at Gareth Hoskins Architects and has been a SEDA member since 1992.



This issue of the magazine has been put together by David Seel, Paul Gilligan and Sam Foster. Our sincere thanks go to guest editors Chris and Nick and to the contributors - all of whom have given their time freely and willingly - 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. [Cover image: Shakespeare Tower, Barbican, London. Reproduced with permission from Sayuki Talbot]

Where has the modern city come from?

A Diversity of Scales: Origins and developments to the modern metropolis.

Mark Cousins

Despite the transformation wrought by accelerated technological and environmental changes, we live in a period of unprecedented stability. Our cities may have grown but most have matured to facilitate urban living and represent the culmination of centuries of iterative innovation and cultural development. The architectural profession, however, is largely impotent in shaping our cities due to larger, more powerful political and financial imperatives.

The city not only offers a refuge to the disaffected but also acts as a beacon of enlightened egalitarianism. It provides a forum where disparate individuals can gather, coalesce and create. Cities, however, need a critical mass (often tied to population density and an equilibrium between supply and demand) in order to prosper. They need to evolve, avoid ossification and continually replenish the existing housing stock to ensure a healthy diversity. Politicians periodically announce bold new initiatives and promise legislative changes to help boost housing numbers but such measures carry risk and need practical implementation to avoid accusations of mere sophistry.

'Metropolis', Fritz Lang's pioneering 1927 film, depicts a privileged class living in futuristic skyscrapers but served by an oppressed underclass consigned to a Stygian underworld. Lang's fascination with machinery echoes Marinetti's obsession with technological dynamism and reflects the revolutionary spirit pervading Berlin at that time. The city's standing as a cultural dynamo is due, in part, to its legacy of revolutionary housing developments. In 1924 the government introduced new taxes to generate revenue for a massive programme of social housing. The architect and planner Martin Wagner played a pivotal role in tackling Berlin's post-World War I housing shortfall by addressing the thorny issue of finance. He devised a more sustainable form of financing and established a socially minded housing cooperative - the GEHAG. He then commissioned leading architects such as Hans Scharoun and Walter Gropius, and encouraged them to pursue a forward-thinking Modernist agenda. The city built over 135,000 flats between 1924-31, the most celebrated being Bruno Taut's

'Hufeisensiedlung' which incorporates a three-storey linear building in the shape of a giant horseshoe. Six of the city's estates were recently awarded UNESCO World Heritage status as "...exceptional examples of new urban and architectural typologies, designed in the search for improved social living conditions."

Cities exert an emotional hold on us by creating a context for the milestones in our personal lives.

Although Berlin is recognised as the quintessential Modernist metropolis, exponential population growth has spawned a plethora of so-called megacities with Tokyo (population 35+ million) having the dubious honour of being the largest. Certainly, Scotland's six cities are modest by comparison but Tokyo exudes a unique sensibility in relation to the world's other megacities. Many Japanese consider themselves as neither Asian nor Western but occupy a peculiar position, superior and separate, governed by an elite, bolstered by an innate sense of authority and resolute belief in the sacred. Japan's creation myths tell how the world once comprised little more than a primeval miasma of mud and chaos. The gods then created an extended archipelago comprising more than 6,850 islands studded with wild mountain ranges wrapped in swirling mists. Japan experiences considerable climatic variation promoting a rich biodiversity, and its 192 volcanoes ensure that the threat of seismic destruction remains potent, even today.

The Western psyche tends to promote individual consciousness, whereas the Japanese have always had an essentially pantheistic outlook, which sees the divine enshrined in nature. The immutable, therefore, can be found in rocks, trees, and even simple meadow flowers. This heightened reverence for nature, especially its transient fragility, permeates Japanese architecture. Since their defeat in World War II, the Japanese have sought to meld two conflicted approaches to life; one rooted in traditional indigenous values, the other enmeshed in Western capitalism. This fusion of East and West can be seen on a

RIGHT: Ueno-Koen Park, Tokyo
Courtesy: Tokyoezine

daily basis, even in the bustling metropolitan districts where tourists gaze at demure geishas clad in full kimono dress clutching the latest mobile phones.

Japan possesses a remarkable architectural legacy informed by a plethora of paradigm shifts in ideology, identity, culture and religion. The challenge for any outsider is to try to comprehend the underlying principles in order to appreciate its subtlety. Sadly most Westerner's understanding of Japanese architecture remains stubbornly embryonic.

Cities exert an emotional hold on us by creating a context for the milestones in our personal lives. The perennial cycle of birth, life and death is usually played out against a mercurial backdrop alternating between grand civic monuments, sweeping scenic vistas and cozy domestic interiors. In Edinburgh, for example, anyone who has undertaken the spiraling ascent of Nelson's Monument before emerging (blinking) into the sunlight cannot fail to swoon at the city's breath-taking panorama. Le Corbusier warned that: "Our world, like a charnel-house, lies strewn with the detritus of dead epochs" and yet we push forward in the hope that our cities endure into a fragile future.

Mark Cousins has combined practice in Germany and the UK, teaching in Scotland and Australia and writing for a variety of magazines and journals. He is also an RIAS Conservation Accredited Architect.



Are expanding cities the future?

The Trantorisation of planet Earth

Jonathan Charley

In Isaac Asimov's *Foundation* trilogy, an intergalactic analogy of our planet's history of imperial violence and class struggle, we encounter a completely urbanised planet called Trantor. A literal 'planetary megalopolis' with a population of forty billion, it is devoted to the administration of an empire. Large-scale agriculture has been eliminated and Trantor is entirely dependent on foodstuffs and essential supplies from other worlds. (1)

It is a vision that is rooted in Asimov's own life experience. He was born in 1920, the same year that Ford's assembly lines exceeded the production of a million cars a year, an event that heralded the motorised urbanisation that was to reshape the American landscape. As a professor of biochemistry he was at the centre of the scientific and technological revolution of the mid 20th century and as well as novels published popular science books. It is also rumoured that as a young man he participated in Marxist study groups, and that the notion of history that shapes the *Foundation* series was inspired by the concept of a 'mode of

production', a term that refers to historically hegemonic ways of organising social and economic life.

Little could Asimov have imagined when he released the book in 1952, that fifty years later we would be building cities that superficially at least have more than a passing resemblance to the city of his literary imagination. For those who have read both the trilogy and also visited one of the world's mega cities, the parallels between the two will be apparent. Similar to Trantor, cities like Sao Paulo or Shanghai appear as unending manufactured landscapes, and when viewed from the roof of a tall building on a drizzly day can evoke the same sensations experienced by Gaal Dornick, an immigrant from another planet who is gazing across Trantor for the first time:

"...he could not see the ground. It was lost in the ever-increasing complexities of man-made structures. He could see no horizon other than that of metal against sky, stretching out to almost uniform greyness, and he knew it was so over all the land-surface of the planet...There was no green to be seen; no green, no soil, no life other than man. Somewhere on the world, he realised vaguely, was the Emperor's palace, set amid one

hundred square miles of natural soil, green with trees, rainbowed with flowers." (2)

Not surprisingly, rampant and unrestrained urbanisation is a common theme in sci-fi and dystopian literature. Often combined with other tropes such as population explosion, fascistic police forces, viruses and food shortages, it is rare to find mega-cities represented as part of an optimistic future. More often than not we end up in one of Philip K Dick's 'conapts' or worse still in an "antiseptic subsurface communal living tank." (3) We might equally find ourselves marooned in one of Ballard's 'architectural atrocities' suffering from all sorts of neuroses and illnesses. In many cases ruinous urbanisation is either the cause or the result of an eco-catastrophe. There is little redemption in any of these sorts of novels, they are deeply pessimistic, and nowhere more so than in Harry Harrison's *Make Room, Make Room* that inspired the film *Soylent Green*. Written in 1966 he describes a New York that has expanded well into the interior of the American mainland, a colossal city one hundred miles long with a population of 35 million. Impossibly claustrophobic, with battles over the right to set up home on a staircase landing or in the cavity of a thick wall, the malnourished citizens suffocate each other surviving on engineered biscuits, whilst an elite live in fortified condominium.

The vulnerability and fragility of these imaginary cities can't be so easily dismissed. To a large extent they simply reflect and exaggerate many of the contradictions that have characterised the history of capitalist urbanisation. It is a pattern that was first rehearsed in nineteenth century Europe and which is now being repeated at an unprecedented scale and with mindboggling speed in Latin America, India, China and south East Asia. Whether we think that expanding cities like Mexico, Karachi or Seoul are desirable or not misses the point that they are the unavoidable consequences of a deeply rooted sequence of historical forces. As in Europe two hundred years previously it begins with successive waves of enclosures that force subsistence farmers from the land to make way for the intensification and industrialisation of agriculture. They migrate to the city, and within a generation peasant families are transformed into industrial proletarians, labouring in the factories, yards and mills of expanding cities to supply the

BELOW: 'Trantorised Earth'
Courtesy: Jonathan Charley



Expanding cities like Mexico, Karachi or Seoul.....are the unavoidable consequences of a deeply rooted sequence of historical forces

machinery and commodities an exploding urban population requires. The results are the same wherever this pattern is repeated; deeply embedded forms of uneven development and institutionalised social and spatial inequality.

Talk of arresting such urban development or making it ecologically less destructive is largely meaningless without challenging an economic ideology that prioritises free markets and defends the rights of a capitalist class to privately own strategically important land, natural resources and means of production. Given that this is the reality that we face, calls for more ecology, more sustainability and alternative green models for urban regeneration, well intentioned though they might be, are destined to remain in the realms of 'ecological utopianism'. This has more than a little in common with the fate of Utopian Socialism in the nineteenth century. It too was motivated by a critique of capitalist urbanisation but believed that its iniquities could be overcome through reason and the construction of ideal communities such as those dreamt of by St Simon, Robert Owen, Fourier and Godin. Then as now, the moral obligation to resolve poverty and safeguard the planet's future is acknowledged and then promptly ignored as soon as it impedes the circuits of capital accumulation. So whilst we can point to some exemplary schemes for green buildings and housing that employ the now familiar arsenal of passive cooling systems, recycled materials, alternative energy supplies and zero carbon footprints, they are like forlorn beacons of hope compared with the devastating social and environmental effects of de-industrialisation and speculative land and building development.

Given this, and the devastation wrought by the current crisis, it is somewhat remarkable how the global ruling class has remained wedded to the utopian idea that crisis-free capitalist production and urban development is realisable. For more than three hundred years, all the evidence underlines the fact that the economic history of capitalism, and therefore architectural and building production, has been precarious, unstable, and punctuated by recurrent crises of both an economic and political nature. It is not as if we haven't been warned about the underlying volatility of capitalism. Even sober minded economists accept that cycles of boom and slump are empirically verifiable. However,

such is the power of ideology in contemporary capitalist societies, that the dialectical opposite of its history of technological and social progress, a history of technological destruction and social violence, is represented as an aberration or a price worth paying.

So what of the alternatives? Whilst social revolutions do not guarantee progressive visions of a future built environment they can open up a quite different discourse, in which the democratically planned and socially equitable development of our cities is prioritised over the profit motives of capitalists. Even in social democratic countries there are examples of urban development that is more carefully managed and planned so as to avoid the worse excesses of environmental destruction and social inequality.

However, as long as neo-liberal ideology remains the driving force behind global economic and urban policy, the more likely a version of the Trantorisation of our planet becomes. The complete urbanisation of earth might be inconceivable, but something along the lines of a world network of mega cities in

a permanent state of crisis and class war divided by militarised agricultural zones and toxic wastelands, seems entirely plausible.

Selected references.

- 1 Asimov, Foundation (Harper Collins: London 1995) p15-17
- 2 Dick, P,K, The Penultimate Truth, (Gollancz: London, 1992), p28
3. For an introduction to anti-capitalist forms of urban development see Charley, J, *Glimmers of another world: Questions on Alternative Architectural Practice*, Architectural Research Quarterly, Cambridge University Press, Vol 12, No2, 2009.

(For other references please email magazine@seda.uk.net)

Jonathan Charley is an architect and writer, and has been a lecturer and tutor across the world. He was Project Director for Scotland at the Architecture Biennale 2012 in Venice. Alongside exhibitions and media projects, he writes on the social history of architecture and cities, most recently in *Memories of Cities: Trips and Manifestos* (2013)

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Should we be building more cities?

David Grierson and Jeff Stein

Jeff Stein and David Grierson have both been heavily involved with the development of Arcosanti, the experimental city built in Arizona under the leadership of the late Paolo Soleri, with David now based in Scotland at Strathclyde University. As a piece of living research into new ways to build settlements, using extensive self building techniques, SEDA put a number of questions to them on what they see the ways forward may be for cities, the environment, and Arcosanti.

SEDA: Should we be building more cities?

JS & DG: Yes we should. For several reasons, the most important of which is this: Do we actually imagine that *this* is it? That our current urban sprawl and pattern of property ownership and social organization is as good as it gets? That, as a civilization we are at the zenith of our understanding of city building and city living? That our growing human population is just going to add to the congestion in existing cities? Most of the world's cities were laid-out hundreds of years ago, before much of our current technology was developed, and before our building materials and human relationships changed. Cities are a product of our collective hopes and aspirations. We should be building them because we are alive. Future generations should too. And, of course, there is the issue of rising sea-levels and how that might impact the need for new cities, sited in more protected locations. We are an evolving species on a rapidly changing Earth; we delight in new experiences, in new ways to relate to each other and to our surroundings. More cities are certainly in our future.

SEDA: Why build Arcosanti when we already have so many cities?

JS & DG: For all those reasons above, and for one more, too. Cities are the largest human artifacts we have; they hold over half the world's human population. The fact that their form is – in most cases – no more than the result of market forces of the distant past is troublesome. There needs to be a place – a laboratory if you will – to experiment with urban design, to design and test patterns of inhabitation, and people willing to do so. Arcosanti is, in essence, an urban laboratory. Issues of land use, consumption, waste, carbon in the

atmosphere, building and transportation energy... these need to be confronted outside the boundaries of existing political systems, outside of business-as-usual. Arcosanti's construction is meant to address this through research and experimentation (learning by doing). At Arcosanti we have the opportunity to both propose alternatives and to test them.

SEDA: So many cities are in decline would it not be better to rebuild these? e.g. Detroit?

JS & DG: Of course, some cities are constantly renewing themselves. But this does not mean that we should automatically rebuild Detroit; there are reasons Detroit did not work as it was or where it was. The problem of urban decline that Detroit represents is particularly prevalent in the United States, where cities are a relatively new phenomenon, and have grown based on sprawl and cheap land and cheap energy. Perhaps some cities are just not in the right location anymore. If we arrive at the view that the fundamental principles that governed their development were wrong, we need to have the courage to change them; to begin again.

SEDA: Do you think that Arcosanti is a bit exclusive and not open to those less privileged?

JS & DG: No, in fact exactly the opposite is both the future goal and the case currently at Arcosanti. A layer of frugality

overlays the Arcosanti project, an attitude that more can be accomplished with less. Thus, in designing Arcosanti's buildings to work with Earth's natural cycles of sun and shade, we heat, cool and light them with the sun. In designing a community whose inhabitants do not need to own cars to successfully communicate and move about, we are making amenities available to all, without the necessity for all to have large personal incomes and privilege. Social justice prevails when a condition of equity among citizens is actually accessible by all of them. This is how Arcosanti exists already; this is its goal in future.

SEDA: Would you prefer less space to live in?

JS & DG: Yes, and so would most of the members of our generation (baby-boomers), many of whom are in the midst of downsizing the amount of space they need to live in, right now. Life can be so much greater than empty rooms and the kind of personal space that is expensive to build and takes time and energy to maintain. Maybe society, to be more coherent, needs more outdoor living space and less indoor personal space; perhaps we should blur the boundary between them, producing more quality of space than quantity. To speak in cosmic terms, life is in the thick of things. It's where the action is. The traditional European model of denser public social space is a good one to look at.

SEDA: Was it a good idea to build a city in a desert?



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*Cities are a product of our
collective hopes and aspirations.
We should be building them
because we are alive.*

JS & DG: Most definitely. Around a third of the world's deserts have occurred on Earth since 1900, mostly as a result of human activity. More than two and a half billion people live in marginal, desert landscapes. So the solutions we are exploring at Arcosanti about how to live successfully under such conditions could be immediately helpful to a third of Earth's human population. We are only beginning to realize that the sort of sprawling, energy-intensive city that is Phoenix, Arizona, designed in an American post-WWII tradition, whose urban pattern and buildings lack both durability and resilience, and whose mechanical systems are likely to be overwhelmed as the climate warms, may not have been a good idea. We are confronting a harsh desert climate to make the kind of architecture that we inhabit at Arcosanti, architecture that shades itself from high summer sun and, facing south, gathers light and heat from low winter sun; architecture that requires very little transportation energy, that is designed to save water, and to connect us with each other and our surroundings. To demonstrate that we can do this, and how to do this with minimal energy and resources, is, we believe, a really good idea.

SEDA: What do you understand by the term "ecological design?"

JS & DG: For several generations we have been creating artifacts: roads, cars, buildings, factories, houses... almost all

BELOW: Arcosanti
Courtesy: David Grierson

these things without knowing how the Earth works, without understanding quite how its various systems interact to create an ecology; a whole living, evolving system. Now that we have learned just a little about all this, we are beginning to see that much of what we have built since the industrial revolution is insufficient to fulfill our hopes or even to sustain our own species and the millions of other life forms that share the Earth with us. "Ecological design" implies the design of things that are coherent with the rest of life on Earth. At Arcosanti our intent is to make architecture connect to Earth's ecology as part of that whole living system and to allow that connection to be experienced in the spaces and places of our daily lives.

SEDA: What do you like about your favorite city or favorite part of a city?

JS: My favorite parts of several cities are much the same: intimately scaled buildings and spaces that define a multitude of real human activity. The social space of cities, where people can meet and enjoy each other and the life of the city, is the compelling urban experience to me. But the grandeur of forest or desert is equally a favorite of mine. The fact that at Arcosanti, even in its early stages, both these conditions are within our lived experience, is a powerful attraction.

DG: My favorite parts of the city are those undiscovered parts that, when I come upon them, remind me that I'm alive. Walking around Arcosanti there always seems to be a new intimate space to meet and talk, or a new vista with a view of the desert

landscape that just doesn't quit. I think the best cities reveal themselves slowly over time.

SEDA: How important is the fight against global warming and its environmental impacts?

JS & DG: Understanding global warming, and the likely role humans have played in furthering it, is perhaps the most important work of our generation. There is not really a fight to be made against it, though, at this late date. We are in its midst, and really there's no turning back. We can try to conserve energy and materials, to learn more about Earth's ecology and how to work in harmony with it so that we don't feel the constant need to armor ourselves with millions of btu's of fossil fuels. But the transformation of our civilization from one of opposition to nature to one of integration with it may take several generations. If several billion of us stopped driving our cars now, warming would still continue apace. The Earth we were born into has changed and we now need to deal with those changes, changes that seem to be far beyond our ability to control. Nevertheless, global warming is both a human-made and a natural phenomenon. Its environmental impact troubles us because it interferes with our current pattern of living on the Earth. Our built environment is both the cause and the cure for what ails us, and here we do have some control. What we do about it will determine our future impact. The Earth will adapt and survive. Whether we will (and how we will) is another matter.



Jeff Stein AIA is an architect, writer and president of Cosanti Foundation, the urban research institute founded by Paolo Soleri in the American southwest. Dr. David Grierson is Chair of the Graduate School of Engineering and Deputy Head of Architecture at the University of Strathclyde in Glasgow, Scotland. He was a member of the professional staff at Arcosanti in the 1990's. Together they have been developing a new graduate degree offering by Strathclyde, with residency at Arcosanti, focused on sustainability and design.

MY FAVOURITE CITY

What constitutes a favourite city? Perhaps a place that holds fond memories of a particular visit or one that has great aesthetic merit in terms of its architecture and civic spaces. My criterion is a bit more selective, one where you pose the question, "could I live here"?

Personally, context is as important as the city itself - an important part of its genius loci or spirit of place. For these reasons, in Europe, I have always been partial to Stockholm where the summer temperatures are consistent and pleasant enough to encourage an outdoor culture of kayaking through the archipelago and swimming and fishing in the inner city waters. In Glasgow, where I do live, I find solace in the view to the Campsie Fells; the changing play of light on them, the overnight white dusting of snow on a winter morning. I can count on the fingers of one hand those other cities that I have visited and thought, yes, this is a city for me - most of them are in the Pacific North West and include Vancouver and Seattle visited some 20 years ago. Much more recently I was in Oregon, the culmination of a trip up the western seaboard exploring the remaining old growth coast redwood forests and I can now confidently add Portland to my shortlist.

The dawn of my Portland arrival began at the mouth of the Columbia River watching half a dozen bald eagles perched stoically on timber groynes. Portland itself was only a 100 mile drive away upriver, most of it through coniferous forests - the two factors which led to its original growth; access to the Pacific and lumber. It has a wonderful hinterland; visible from downtown, snow-capped volcanoes reach 11,000 feet and its site at the

Martin Robinson
champions

Portland

confluence of the Columbia and Willamette rivers result in numerous examples of ingenious and dramatic bridge engineering. On its doorstep, Forest Park is, at five thousand acres, one of the United States largest urban forests, mostly second-growth but providing a green infrastructure awash with 70 miles of trails. It also does urban cycling better than any other major North American city having invested heavily in cycle infrastructure since 1971 when its first bike plan was conceived and this shows no sign of abating. It speaks volumes that it has a coffee shop (The Fresh Pot) which boasts 25 chairs and parking for 26 bicycles.

It is not without foundation that Portland is generally regarded as America's prominent green city with half its power coming from renewable sources and a quarter of the workforce commuting by bike, carpool or public transportation. Although these elements are part of its appeal, a favourite city is still a sum of collective impressions. I can add the wonderful residential clapboard manses which overlook the city from the hills; the largest independent bookstore in the world at Powell's which occupies a whole city block; contemporary pocket parks offering artistic and natural interest, and a thriving cultural independent music scene - all this within a walkable city core.

The industrial infrastructure of grain silos, dockyards, lumber yards and rail roads also contribute to the urban fabric and advertise the economic bedrock which lies behind the city's liberal, cultural and green credentials.

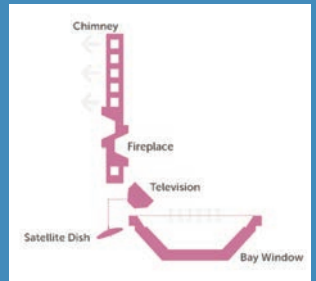
The city isn't arcadia, it has its detractions, a notorious wet climate being one of them, but it is real and this gritty side also appeals to me. Cities are ever changing palimpsests which adapt in order to survive - it's just that some cities do it more successfully than others and Portland to me is one of them doing it in a magnificent part of the world.

Martin Robinson is a Landscape Architect at Aedas Urban Design & Landscape, Glasgow



Photos courtesy of Martin Robinson

Can we make existing cities ecological?



Matt McKenna, Dress for the Weather

As a model for habitation, cities are already inherently ecological to some degree. I would propose it's in the approach to working with the city in which ecological design should focus. As designers we should relish the opportunity to work with and improve existing urban buildings and neighbourhoods; and to engage effectively through a strong understanding of the situation presented to us. To some extent this is about finding the most appropriate technical solution through an understanding of the existing fabric, but more importantly it's about really engaging with the architecture, design and users. Below are two Dress for the Weather projects that I feel, in slightly different contexts, present a strong model for engaging with the city and its buildings. Part of the Dress for the Weather ethos has always been to develop a greater understanding of the places and locations in which we work. We have recently delivered two research projects, both Glasgow-centric and both of an urban

scale, that have the recording of the city at their core.

The 'Typology Project' is a self-initiated piece of research which takes the form of a newspaper publication. Each volume deals with a different typology; with the eventual outcome being a complete record of Glasgow's building types. Its purpose is to highlight the design, prominence and character of each type with the goal of improving awareness of both the quality and potential of the cities architectural stock. The second project, delivered on behalf of energy charity South Seeds, is the Energy Snapshot Report, which received the Saltire Housing Award for Innovation 2013. The report records the current condition of South Seeds working area - Govanhill, Crosshill, Queen's Park and Strathbungo - documenting architectural design, building condition, tenure and ownership. By correlating this information and outlining the support process individual

residents can follow, we have provided South Seeds with a carbon saving masterplan on which they have built their extensive programme of energy saving alterations. Both projects are about recording the complex and varied condition of the city, and both, importantly, factor architectural design and spatial quality into the exercise.

What's great for us is to see that our initial commitment to understanding the design and character of cities is able to be adopted by groups like South Seeds to make significant carbon savings to the existing building stock. If our initial intent was to celebrate Glasgow and its buildings then the fact that our work is now encouraging continued use and occupation of the city is something of which we are very proud.

Matt McKenna is a Director of Dress for the Weather; an architecture practice based in Glasgow, and is chair of Streetland; a community arts organisation.

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How should we be regenerating our cities?

Owen Hatherley

Rather than going to more obvious green “friends” for their views on cities, SEDA thought that it would be interesting to interview a prominent pundit, with a penchant for brutalist architecture; to have the views of someone who loves cities.

Owen Hatherley is a well known writer and journalist writing mostly about architecture, politics and culture. His first book *Militant Modernism*, *The Guardian* described an “intelligent and passionately argued attempt to ‘excavate utopia’ from the ruins of modernism” and an “exhilarating manifesto for a reborn socialist modernism”. Jonathan Meades in the *New Statesman* described him as a “a very clever, velvet-gloved provocateur nostalgic for yesterday’s tomorrow, for a world made before he was born, a distant, preposterously optimistic world which, even though it still exists in scattered fragments, has had its meaning erased, its possibilities defiled” Of his most recent book *A Guide to the New Ruins of Great Britain*, Patrick Wright in *Architecture Today*, wrote: “Hatherley (undertakes) his forensic travels with a commission from *Building Design* and the example of JB Priestley’s *English Journey* in mind. His style, however, is much closer to that of William Cobbett, the radical early nineteenth century English agitator who delighted in ‘haranguing’ rather than simply lecturing audiences during the course of his *Rural Rides*. Cobbett’s allegiance was to a traditional countryside undergoing massive transformation in a period of war, rising capitalism, and expanding industrial cities, and yet he was no sappy pastoralist.”

SEDA: What’s good about cities?

OH: Environmental things, in the sense that you don’t have to drive everywhere, unlike in the countryside; aesthetic things, in that they’re things of huge and underrated intricacy and beauty; social things, in that they are examples of human beings living together in diverse and complex ways. There are cities and cities, though - all I’ve said probably applies in wildly differing degrees to London, Stockholm, Moscow, Lagos, Taipei, etc etc. But the notion that villages (what’s the other option?) are superior on any of the



above is surely not seriously tenable.

SEDA: Following London’s Olympic Games, the legacy of Glasgow’s Commonwealth Games will be a “village” of over 700 houses in one of the city’s most deprived areas. What merit, if any, do such projects have?

OH: Very little. Originally this sort of thing was justified by an increased tax base for spending on other things that councils now generally don’t do (eg council housing), now it seems to be justified either by belief that the rich living next to the poor will make them better or the notion that the poor have no right to live in potentially lucrative parts of the city at all. It’s nice to have infrastructure and parks, as there now is in Stratford, but it’s shameful that it apparently must come at the price of speculation, rent-hiking and clearance.

SEDA: Is the privatisation of public space, and the sometimes invidious social engineering by regeneration in towns over the past thirty years, a price worth paying for greener, cleaner cities?

OH: No, and partly because that’s not what entirely you’re getting. The cleaner, richer, greener East London occurred at the same time as an exurban, poor, environmentally destructive Thames Gateway, and for the same reasons.

SEDA: Why have we not seen the sorts of counter campaigns by socialists and

ABOVE: Grosvenor Street Housing
 Courtesy: scotbrut.co.uk
BELOW: Deptford market
 Courtesy: Brockleycentralblogspot

environmental activists which we might have expected to these large scale regenerations?

OH: We have, a little - campaigns against Pathfinder in the north under New Labour, campaigns against the bedroom tax now; but the problem with regeneration is it tells you it’s going to do wonderful things. Who doesn’t want their area, especially if it’s been starved of investment and infrastructure for decades, suddenly to be renovated and given various new facilities? The price, ie the influx of the affluent, either incrementally via old-style ‘hipster’ gentrification or suddenly in the Blairite brownfield blocks of flats variety of



gentrification, is not always seen, or is stealthily smuggled in - percentages of 'affordable' (ie 80% of market rent) or 'social' (ie undemocratically controlled Housing Association) housing are used as a sop and deflection mechanism. If it is opposed, it's often via conservationists' campaigns against demolishing picturesque buildings, which is very laudable but often enables councils to present themselves as saviours of 'people' against 'buildings' - cf Liverpool with the Welsh Streets, Tower Hamlets with Robin Hood Gardens, etc.

SEDA: How “green” is “brutalist” architecture and your perceived preference for “statist” environmental solutions?

OH: Brutalist Architecture isn't terribly green in its materials, though I suspect beton brut is potentially greener than concrete frames covered in zinc, trespas and wood, as is the current norm. The 'greenness' often comes via the attention to creating car-free, public, often verdant space. Brutalist ideas about city planning (juxtapositions, 'clusters', density, abundance of public space) can coexist with a more obviously 'eco' approach to buildings themselves, as in the work of Ralph Erskine or Giancarlo de Carlo. As for statist environmental solutions, I firmly believe it's ridiculous to think that a problem of this magnitude is solveable via bottom-up small-is-beautiful solutions. That doesn't mean there should be some Gosplan somewhere sorting out the problems of climate change, but there has to be some degree of large-scale co-ordination and mass-production in things like housing, retrofitting, post-carbon industrial planning and land allocation; the alternative is purely whimsical.

SEDA: What do you understand by the term “ecological design?”

OH: I don't, really. I wish there were better terms for these things - like 'sustainability' it asks more questions than it answers.

SEDA: What do you like about your favourite city or favourite part of a city?

OH: In architectural terms my favourite things are usually a matter of unashamed interactions of historical and modern

buildings, multiple topographical levels with lots of ramps and walkways, skylines - they give that sense of everything happening at once harmoniously but dramatically that makes urban architecture exciting - off the top of my head, Castle Market in Sheffield, the Barbican in London, Warsaw Central Station, among lots of others. But then there's also plenty of places I hold in quite high esteem that are just incredibly simple (even, often, inept) bits of planning but that are exciting purely because of what happens there, like Deptford High Street or the Elephant and

Castle in London.

SEDA: How important is the fight against global warming and its environmental impacts?

OH: Obviously incredibly important in every possible way. But I suspect like a lot of people I'd like to see it decoupled from ruralist lifestyle politics, which strike me as a hindrance.



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How can our cities feed us?

Testing the integration of agriculture and the city

Michael Collins

We now live in the 'urban age'; over the next century focus will be on the world's cities, in particular the vital support systems needed for the health and wellbeing of their inhabitants. Alongside the pressure for cities to provide increasing quantities of clean affordable energy the huge task of supplying them with food will become ever more important.

Much has been written about 'urban farming' within cities developing world like Havana and Mumbai, where state run and informal economies successfully harness fragmented urban development patterns to provide substantial amounts of food. Although lauded by many in the developed world as shining examples of 'green' city policy, questions remain about how food systems could exist within the planning of cities in the developed world (see Pete Richie's article on Edible Edinburgh in SEDA Magazine Spring 2013). Can we move beyond the humble allotment in its various guises, given the context of market led patterns of consumption, lifestyles, and land values from our financial systems, and the highly regulated nature of our city planning?

The concept of incorporating food production as a way to radically re-imagine 'greener' cities, and achieve greater self-reliance, has had a long history within architectural and urban design discourse. The evolution of this concept can be charted from the Enlightenment, re-

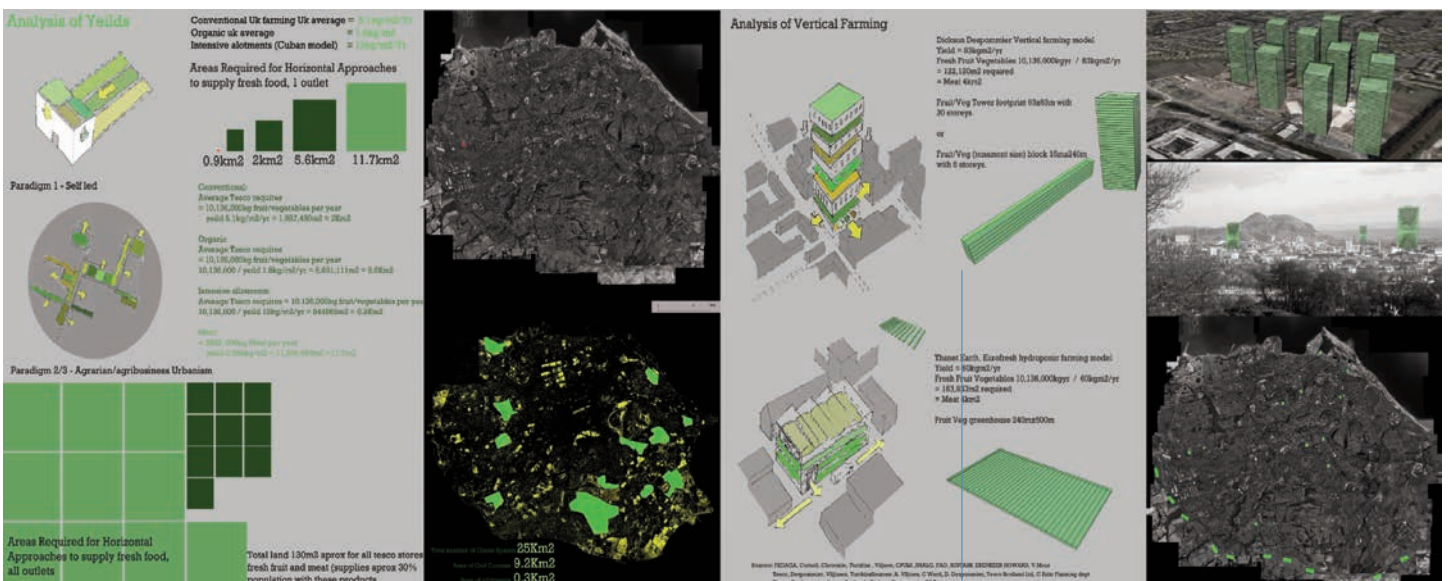
emerging and adapting itself to fashions and corresponding to moments of economic, political and environmental crisis over the last two centuries. The utopian nature of these utopian projects by architects and visionaries such as Ebenezer Howard, Le Corbusier, and recently MVRDV, demonstrate our continued unreconciled relationship between 'settlement' and the wider landscape. Recently, increased environmental literacy, looming environmental challenges and the day to day financial volatility of food prices has elevated the concept to a key theme in contemporary urban debate. Outside academic circles, 'Urban Agriculture' or 'Urban Horticulture' have moved from grass roots movements to enjoy mainstream media attention. A recent lifestyle article suggested; "something unbelievable has happened, farming has become fashionable..... but only if you're doing it in the middle of a city.

The various concepts of Urban Agriculture are in many ways diverging and contradictory in their approaches, ranging from the rudimentary 'good-life' proposed by prominent 'New Urbanists', self-sufficient futurism, or as props in the 'green' master-planner's stage set. Parallels can be drawn between these and our paradoxical and highly selective relationship to food in the developed world.

To look beyond utopian visions, this contradictory relationship to food was the starting point for a study which aimed to

visualise the implications of connecting the city with the reality of food infrastructure using data derived from current consumption patterns and city land use, and using Edinburgh as a case study. Research indicated three dominant approaches, which can be summarised as; high yield 'horizontal methods' (continuous productive urban landscapes), 'vertical farming', and smaller scale 'catalytic interventions'. Food supply to Edinburgh is dominated by a small number of large food retailers, with few direct links to producers. This study tested the physical urban implications of replacing one major food retail outlet using various methods, and where such productive surfaces could potentially be located, using data from a major UK food retailer, NASALG, CEC and the FAO.

A study of existing open land within Edinburgh illustrated that there is less than 0.4 hectares of allotment land spread across 1419 plots, in contrast to almost 9.6 hectares of land associated with golf courses. Analysis of the periphery suggests a blurred fragmentary belt of similar area coiled around the city bypass and greenbelt, resulting from Edinburgh's attempts to contain its own development, and poor peripheral planning. Data relating to the tonnes of fresh fruit, and meat supplied to an identified store, and the number of deliveries required to provide this were obtained, (which however did not take into account factors such as wastage in the supply chain). Through analysis of supply data, the total



Edinburgh has less than 0.4 hectares of allotment land spread across 1419 plots but almost 9.6 hectares of golf courses.

amount of vegetables, (10,136 tonnes per year), meat, (3360 tonnes per year), and dairy, (3360 tonnes per year) were determined. Based on average consumption patterns for the developed world, approximately 12,600 people could be supplied by this source. The single outlet studied, run by a retailer with an approximate 30-40% share in the supply of the city's food, represents roughly 3-5% of Edinburgh's food supply.

On this basis, three times the amount of land currently allocated to allotments in Edinburgh would be required to provide the fruit and vegetable needs of one retail outlet using intensive means, and more than five times more land (5.6km²) would be required if this were to be provided organically.

This would represent approximately one fifth of the total number of green areas in Edinburgh. If food were to be provided using hydroponics, based on data from vertical farming methods, a 30 storey vertical farm with a footprint of 3000m² would result. Alternatively this could be mitigated by creating instead a 6 storey tenement scale 'street' (each 15m deep by 240m long), of a similar typology to the single storey 'Thanet Earth' agribusiness model. These figures begin to visualise the sheer scale, of production required to sustain current urban consumption.

The intensive mono-cultural and industrial nature of the methods required to make any significant contribution to the cities food supply contradicts the notion that

such strategies either add to the biodiversity or public inclusivity within the city, as often illustrated in architectural renderings.

Most urban or architectural proposals incorporating Urban Agriculture focus on 'production', with the reality of complex hidden distribution and processing infrastructure critical to ensure efficient supply to meet consumer demands are largely overlooked.

So what role could food production have within our cities? Carolyn Steel, author of *Hungry City* argues tackling the demands of our western food culture, though holistic education and increased transparency of such hidden processes, is the starting point of reducing urban food stress.

Could this be an argument towards a more visible inclusion of such industrial production within the city? Despite renewed interest in being closer to the origins of our food, are today's western urbanites prepared for the realities of this, including less palatable elements such as processing facilities and abattoirs taking prominence within the city?

From this analysis, some speculative proposals were made based on Edinburgh's land use patterns, putting into use available land at the edge of the greenbelt or around the logistical belt, and temporary sites within the city resulting from recent economic stagnation. When the effects are considered, the studies questioned the merit of forming interconnected agricultural production and processing

infrastructure, as a stitching device around fragmented city peripheries. However, the intermeshing of public transport, cycle routes and open landscape could create opportunities for new spatial relationships and places for citizens to interact with their food.

Temporary allotments within the city could provide a shifting catalytic public infrastructure, reinvigorating new spaces and creating forms of educational, entrepreneurial public space. Initiatives such as SAGE (see study on pg?) are already promoting temporary allotment uses for stalled sites in Glasgow. The scale of the contemporary city and the complexities of our global economy render feeding our cities within their existing boundaries a questionable task. It could however be argued that the integration of elements of contemporary food production, and giving it greater visibility to its associated processes, could 'feed us' through an increased awareness, and give urban dwellers the ability to change such systems both as consumers and as stakeholders, and participate in shaping our urban spaces.

Michael Collins is an Associate at Oliver Chapman Architects and teaches at Edinburgh University Department of Architecture

A fuller version of this study can be found at: www.agriculturalurbanismdotco.wordpress.com

FAR LEFT: Space study for 'vertical' agricultural models to feed Edinburgh
BELOW: Temporary Vertical Allotments, Shrubhill

Images courtesy: Michael Collins



What infrastructure do our cities need?

Redefining Infrastructure

Jude Barber

Infrastructure n. The basic physical and organisational structures and facilities for the operation of a society or enterprise: the social and economic infrastructure of a country.

It seems obvious to say, but infrastructure is essential to the social, economic and physical sustainability of our villages, towns and cities. In the world of design and construction infrastructure is commonly associated with power and transport based systems such as bridges, sewers, roads, railways and airport terminals.

Scotland has a fine tradition of building world-class infrastructure like the canal network, aqueducts, hydro power stations and road and rail bridges. Nevertheless, the definition of infrastructure is much broader than 'grey' power and transport systems. It encompasses information technology, housing, ecosystems, communication networks, decision-making structures and social infrastructure such as education and health services. Sadly, our physical and social sustainability are being threatened by increasing energy costs, associated fuel poverty, an ageing population and climate change. At a time when the gap between rich and poor continues to steadily increase we are seeing more and more people denied essential services and support.

So, what might architects and built environment professionals do about such a broad and complex problem? And why is it relevant?

It is to Scotland's shame that we are the sick man and woman of Europe. In parts of Glasgow's East End male adult mortality is shockingly only 54 years (compared to the UK average of 76 years). Harry Burns, the Chief Medical Officer for Scotland, and the Glasgow Centre for Population Health have been leading highly relevant research and active work in this field. They have been reinforcing the link between population health and the physical environment stating *"There is a proven link between how we perceive our world and surroundings and the various biological responses that go on inside the body. How people feel about their physical surroundings, can impact on not just mental health and wellbeing, but also physical disease."*

Scotland can boast a strong intellectual history that links place to health and wellbeing. During the late 19th Century the philosopher and thinker Patrick Geddes made this connection stating, *"This is a green world, with animals comparatively few and small, and dependent on the leaves. By leaves we live."* Inspired by the River Tay in Scotland, and later the Ganges in India, Geddes studied life from the mountains to the water. He made the connection between labour, wellbeing and landscape and famously created the famous Valley Section, which captured the richness and diversity of landscape. This way of thinking about landscape, topography, identity and labour allies with the definition of 'infrastructure' as social, ecological and cultural. So it is with a degree of bemusement that our industry still defines 'infrastructure' as 'grey' transport and power engineering projects.

Historically, architects and engineers played a pivotal role in addressing key issues affecting society, from the provision of post-war housing to

the design of structures to aid movement and trade.

We continue to benefit from much of this via our road and rail networks, schools and hospitals. Last month the UN issued a paper stating that climate change was 95% man made. Consequently, there is no question that one of the most pressing issues facing our towns and cities is the need for holistic integration of infrastructure, people and habitats to address wider national and international issues relating to transportation, flood risk, carbon reduction, health and ecology.

Over the past 5 years Collective Architecture has been fortunate to work on a number of strategic and complex projects that marry dwellings, landscape, transport and hydrology. The first of these was the Integrated Green Infrastructure project. This set out 'visions' for four key areas in southwest Scotland with particular hydrological and ecological constraints. The project sought to transform each site through an integrated approach to water management and ecology. It redefined what we had previously understood to be 'infrastructure'. Linear green-blue pedestrian and cycle routes linked new and existing housing to schools and high streets with wetlands within parks, providing enhanced local ecology and habitat creation.

Tools like Greenspace Mapping and the Integrated Habitat Model were made available to better inform design via the Glasgow and Clyde Valley Network Partnership (1). Wetland, woodland and grassland habitats were mapped and analysed then new proposals tested within the model to establish ecological benefits and links that would be created.

The Integrated Urban Infrastructure project allowed us to see the potential of design to be a truly collaborative and interdisciplinary process providing multi-benefits for towns and local communities. Our eyes were opened to a world of ecologists, geographers and hydrologists. Fenced, kidney shaped SUDS ponds were replaced with sunken play areas to hold water in the event of a flood. Underground pipes and culverts were brought to the surface in the form of swales and water hungry landscaping. Habitat corridors took the form of cycle routes. The process allowed us to better understand the role that architecture and landscape might play within a broader ecological and sociological network.

Since our involvement in the Integrated Urban Infrastructure project we have worked with Glasgow City Council to develop a District Heating Masterplan for Glasgow's East End, a hydrological strategy for North Glasgow for Scottish Canals, and produced the Seven Lochs Wetland Park masterplan in Glasgow/North Lanarkshire for the Glasgow and Clyde Valley Green Network Partnership. Each project seeks to provide multi-benefits in terms of landscape, water management, power and ecology.

The award winning Seven Lochs Wetland Park Masterplan sets out a vision and strategic plan to create a new wetland park of national significance to the east of Glasgow within a 16.5 square kilometre area. It offers an innovative peri-urban model, with its unique combination of habitat and wildlife preservation, opportunities for recreation, and the integration of new and existing housing. As a result of its size and location, the proposed park is ideally placed to create a countryside experience for visitors from urban areas to participate in activities that engage with nature.

One of the most pressing issues facing our towns and cities is the need for holistic integration of infrastructure, people and [wildlife] habitats.

BELOW: Active landscapes
Courtesy: Collective Architecture/AECOM



The design recognises the unique character of the region and protects and enhances the existing wetland habitat. It considers the area as a whole in terms of its hydrology, biodiversity and its recreational importance. It also considers how existing habitats can be protected or enhanced through new planting, housing, park facilities and path networks, and it demonstrates how architects can draw often-competing elements such as access and habitat protection into a pleasing whole. As a result we now consider hydrology and ecology to be integral to development and new projects. Our involvement in this work has allowed our practice to broaden its view of sustainability and what this term might mean.

Our European neighbours, however, are streets ahead in this respect. Freiburg, in Germany, is an excellent built example of an established large-scale neighbourhood incorporating green infrastructure principles. Residents cycle and walk to work and school through safe and inviting landscapes and habitat corridors, which also carry their surface water and energy supplies. The Scottish Government has also published a Green Infrastructure policy, which clearly sets out an integrated approach to designing places. This policy has been applied through the Charette design process as part of the Sustainable Communities Initiative. Also, CIRIA recently set up an excellent website called Susdrain (2) which holds guidance and precedents.

Architects have a key role to play in this on-going, multi-disciplinary work. While we continue to produce buildings of quality and finesse, we surely also have a social responsibility to put our skills towards strategically addressing broader infrastructural issues. So, why are architects and designers not jumping into the world of integrated green infrastructure with two feet or fully recognising its significance? It could be said that a multi-disciplinary approach or 'shared thinking' is the antithesis of the master architect or planner with his grand visions and creations. In a sense integrated green infrastructure is 'invisible architecture'. It is a collaborative and multi-disciplinary pursuit as part of a broad team with a 'hidden' design process that cannot be attributed to one individual or organisation.

Equally, terminology such as 'SUDS' and 'ecosystem services' do not to fuel a designers' interest. Nevertheless, these two particular matters are essential elements that determine the health of our built environment. Perhaps it would assist if these terms were redefined as 'water sensitive

design' and 'ecological landscapes'. I have particularly enjoyed working alongside ecologists, planners, health professionals, landscape architects and strategic drainage engineers over the past few years, and to see the multi-benefits that collaborative working can bring if undertaken at the early stages in development. The integrated green infrastructure approach adds enormous value as it provides an important bridge between a number of disciplines, organisations and local authorities. It enables organisations to work together to avoid 'silo' mentalities, which have been known to block common sense development and cause damaging effect to local communities. Glasgow's recent M74 extension is a spectacular example of non-integrated, single-issue transport infrastructure.

Integrated green infrastructure aspires to create joyful and holistic places for the benefit of all. It asks us to take our skills and interests beyond the red line of particular sites and buildings - to look beyond walls and boundaries towards invisible hydrological cycles, the psychology of space, multi-spatial benefits and the movement of birds, animals and insects. The Glasgow and Clyde Valley Green Network Partnership and Central Scotland Green Network are leading the way in this field and have a broad resource of reports, advice and information on their websites.

Architects are well used to juggling widely diverse influences, requirements and knowledge, which may be why we can apply ourselves to cross-disciplinary working. There is often talk of the demise of architecture and an under appreciation of what we do. Instead, there has never been a more important time to apply our skills to a craft that is mindful, detailed and collaborative. Integrated green infrastructure is a multi-disciplinary approach to place that addresses health inequality, enhances ecology, supports natural hydrology, and positively affects climate change to create holistic places, which raise the spirits for the benefit of all. It doesn't sound simple or catchy. It shouldn't.

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1. www.gcvgreennetwork.gov.uk/Opportunities-Mapping.html
2. <http://www.susdrain.org>

Jude Barber is a director at Collective Architecture, Glasgow.

Is there such a thing as an ‘eco-city’?

From ecocity to sustainable habitat

Chris Butters

Although most of the world is living in cities, it still makes limited sense to talk about “sustainable cities”.

We need to be more precise with our definitions, and the often unstated paradigms underlying them. The simple reason is system boundaries; an urban unit, defined by its city limits, cannot be sustainable, in ecological, economic or community terms. Many of the blueprints advanced for ecocities in recent years, from Arcosanti to Dong Tan in China to the dreams of Gulf States, such as Masdar, only tick a few of the boxes required to achieve sustainability in the full (and only meaningful) sense of the term.

Ecology: huge efforts of geoengineering in deserts may be possible given extreme sweat capital (Arcosanti) or billions of oil dollars (Masdar), providing a high degree of ecological self sufficiency including water, renewable energy, food, and even biological diversity; but only at a cost that can never be relevant for any significant number of people or countries. And when the oil money, or the sweat capital, runs out? Human settlements have with reason always been connected to natural resources, soil, and water. To recall the words of Artur Glikson: “The only basis of planning is the ecological basis”.

Economy: cities survive and evolve thanks to functional and economic diversity. Masdar could possibly survive for a while as a financial, touristic or hi-tech hub – but what else? There is little economic basis for a new city in a desert. Even virtual

activities such as finance require people, hence inputs and outputs of matter and energy. No wonder that cities have been sited close to seas, rivers and crossroads. And being such high end projects, Masdar and other ambitious Gulf ecocities are already scaling back, if not dying on the drawing board, due to global – not local – economic downturn. There aren’t enough jet-setters to buy islands shaped like countries or financiers to open new stock exchanges. The keys to economic sustainability are diversity and resilience.

Community: this is the aspect that seems most absent in the Middle East visions, with no natural local community. Those ecocities must be populated from scratch – presumably by a rich class plus a labour class imported from other Asian countries! It is indeed, theoretically possible to create new community from nothing. But we know how difficult that is.

What these visions lack is a holistic view; of human and natural habitat understood as an indivisible whole. No isolated community can be self sufficient, but on the level of a region or microregion a large degree of sustainability can be attained. Some goods and services, such as information, are independent of geography and distance, but sustainability does imply maximum local self sufficiency in food, energy and most basic goods. Not only to reduce transport, but equally for economic, social and management reasons. This does not imply isolationism; there is ample room for a degree of specialization in cities and communities – as in natural habitats.

Pioneering ideas in a sustainable direction were Ebenezer Howard’s Garden Cities, and Lewis Mumford’s regional or watershed planning (such as the TVA); genuinely holistic spatial concepts that thoughtfully embraced ecology, economy and community. Or to use the terms of Patrick Geddes: Place, Work and Folk. Unhappily, the modernist approach as in the New Towns was the opposite, with specialized spatial zoning; whereas one of the absolute keywords that has emerged for sustainable settlements is mixed use.

Some useful part-solutions

There are very interesting recent projects that point the way. Most are at the level of

urban neighbourhoods. In Europe these include Vauban in Freiburg, Sudstadt in Tuebingen, Culemborg in Holland, Malmo in Sweden, Kronsberg in Hannover (and, rather feebly, Millennium Village in London). As well as the unique regeneration of the Fairfield area in Perth, for which my colleagues in GAIA Scotland won a World Habitat Award.

All of these are characterised by attention to the whole, ecology, economy and community. As well as good degrees of citizen participation for, as stated in Agenda 21, there is no sustainability without user involvement. Solutions are integrated, with a strong focus on people, not a one sided preoccupation with ecotechnology as “the saviour”. Most of these to date are at a scale of several thousand people. Vauban is my favourite; a diverse, ecological, low rise green neighbourhood, socially vibrant, with 15 years experience.

Another very positive vision is the ecovillages movement. This is now worldwide; some of these are very ideological and most are rural, but others are urban and comprise pretty “normal” people with a modern lifestyle. They have renewable energy, quite a lot of organic food production, local workplaces and a strong sense of community; and a generally far lower level of consumption. They give very significant results. Ecocommunities such as Hjortshoj in Denmark (illustrated here) as well as Findhorn in Scotland have been shown to have an ecological footprint that is only about one third of the national average! This despite having all modern facilities. They are thus a real pointer to a sustainable future. But these too are at a small scale.

What about the big picture?

In addition to these good examples, organizations such as ICLEI and Transition Towns are taking useful steps. But our major sustainability challenge by far is not green neighbourhoods; it is to fundamentally restructure thousands of existing cities. Will we ever be able to do this – let alone at the rate that the climate agenda may require? Unlikely without dictators or ecofascist governments? One of the biggest obstacles to urban sustainability is the car. This is not just about fuel use but to enable compact cities



“Most American cities are planned on the basis of cheap gasoline forever”

Clark Bullar

without vast areas given over to traffic, with liveable, child friendly streets and healthy, noise free spaces. Only very few cities (Freiburg, Stockholm, Hasselt) have succeeded in reversing the trend and reducing car traffic. In Vauban it is not that people own fewer cars; it is that they use them much less, thanks to excellent pedestrian facilities and public transport and the proximity of the workplaces and shops.

Sustainability is also about choosing the *appropriate* scale for solutions. For example, urban planning has not been integrated with energy planning. Renewables-based district heating (or cooling) makes more sense than trying to make each building self sufficient in energy. The same applies to ecological waste water management. This again is about seeing system and subsystem boundaries in a holistic way. The primary scale of action must be regional, roughly speaking, to include cities and their hinterland. As well as synergies with neighbouring cities. This applies not only to the ecotechnology, but equally to economic resilience and to community. An example – fairly unique I think – is the Master Plan for an Ecocity we in GAIA International developed in Taiwan. Though as suggested above, I would prefer to avoid the spatially limiting word “city” and use the term “sustainable habitat”.

Perhaps sustainability is too much by city people, for city people? The rural world is still our basis for food, water and energy as well as natural resources, biodiversity, waste treatment, fresh air, and recreation. Sustainable development can offer new life and economic opportunities to the rural world. Partly because all these activities connected to resource flows – in particular energy, water, wastes and materials flows – are becoming increasingly important, and hence revalorized economically.

In 2004-2007 GAIA International was commissioned to develop a master plan for a new Ecocity in southern Taiwan. The proposals give a new dimension to the idea of sustainable cities, being perhaps the first concept for integration of a city and its rural surroundings. This offers fascinating synergy effects. It also addresses the rural poor – the source of migration to city slums. Synergy between rural and urban



subsystems includes design of compact mixed space, sustainable water and waste cycles, biodiversity, food production and renewable energy.

We redefined the boundaries for the new city, broadening the whole project so as to include the surrounding areas. In this way many of the resource flows could be both optimised and integrated – think large scale permaculture. The approach is first of all passive: the layout is based on bioclimatic principles. High priority is placed on energy efficiency, reduced traffic, water recycling features and green corridors. These passive design strategies address the demand side first, reducing resource needs, before the stage of selecting supply side technologies.

For example green corridors reaching into the city are not only for recreational or aesthetic reasons but fulfil specific microclimatic functions. Similarly, the orientation and geometry of streets and buildings is not aesthetic design but relates to solar orientation, shade, local wind directions and the need (in that hot climate) for an urban ventilation strategy – thus providing an improved microclimate and reducing energy needs. In this way climate and ecology take their rightful place as key generators of urban form.

The city is zoned into four mixed use areas of different character and density in order to integrate workplaces as well as to illustrate that there is no single answer regarding sustainable typologies, which here range from dense urban blocks to low density garden suburbs, and rural villages.

The energy dimension is important. Tainan county comprises intensively farmed land plus large areas of less productive land devoted to a struggling sugar cane industry. These latter are ideal for growing biofuels since this will hardly

ABOVE: Ecocity Tainan:
Integration of city and countryside:
Master Plan project by GAIA International including Joachim Eble, Dr Varis Bokalders and Chris Butters, with EDS Design Services, Archilife Foundation and Tainan County government.

LEFT: Vauban, Germany

Courtesy: Chris Butters

displace food production. They could quite literally become the city's petrol station. With solar, wind energy and biofuels, as well as waste recycling, farmers can also obtain vital new sources of income. Our conceptual models for Ecocity Tainan build not least on the pioneering ideas of Scotland's famous biologist and planner Patrick Geddes, whose holistic planning predated today's mantra of Ecology-Economy-Community by 100 years.

The master plan was developed in workshops and multidisciplinary design sessions. It was developed further in cooperation with Joachim Eble's office in Tübingen, Germany. True to the Asian Tiger spirit, the city has been taking shape at breakneck speed. Many of our proposals are being implemented, others not.

The Tainan concept, even if only partly implemented, puts discussion about compact cities in a broader perspective. Above all it offers a vision where the countryside – neglected and often dying – regains status as an essential part of human settlements. The GAIA International Master Plan thus underscores the positive synergies that can be achieved only through urban-rural integration – suggesting a broader approach to sustainable human habitat.

Chris Butters is a founding member of Gaia International and is a Postgraduate course director at the University of Oslo

MY FAVOURITE CITY

Photo courtesy of Moray Royles

Moray Royles advocates

Edinburgh

Cities are fundamentally based around people's movement, interactions and sensory stimulation. For me, Edinburgh possesses a heady blend of all. My urban experiences continue to grow and this nurtures, informs and invigorates me in equal measure. My view is influenced by European examples of urban living (mostly Italian).

Whilst Nanni Moretti filmed Rome from his Vespa, I enjoy absorbing Edinburgh by bike. The city has the benefit of there always being a landmark point of reference because of the topography, such that it is easy to navigate and explore on two wheels.

Edinburgh has evolved in harmony with its landscape, not overwhelming it and contained by it – a microcosm of the country. In addition to the materials, surfaces, colour and light, there is a network of experiential stimulæ throughout the urban mix that makes it such a favoured place to be:

- **Coast** - life along the shoreline from Cramond to Portobello
- **Sea** - The historic port of Leith; a route for trade and people movement, crossing the Forth
- **Water** - The Union Canal, lochs, rivers; Almond, North Esk, Water of Leith
- **Hills** - that give public vantage points of the city skyline and horizon of the surrounding landscape- from Castle Rock, Arthur's Seat, Blackford and Calton Hills.
- **Parks** - amongst the dense urbanity are The Meadows, Bruntsfield & Leith Links (with dual use as urban golf courses) and most strikingly at Holyrood Park where it is possible to find yourself in a mountainous idyll within the city that surrounds it.
- **Paths** - including a cycling network on disused railway lines
- **Rituals** - The One O'Clock Gun, Beltane, The Festival, seasonal markets, fireworks and Hogmanay bells
- **Culture** - Galleries, museums, theatres, cinemas, libraries, studios

- **Enlightenment** - The diaspora of students and staff attending the universities and enlivening the population
- **Proximity** - most places in the city remain within a reasonable pedal or walk
- **Familiarity** - the village effect of recognising people and the ease of meeting friends
- **Smell** - the lingering aroma of malted barley, chips with sauce and more recently, a growing waft of arabica coffee and pastry, since the redevelopment of many breweries.

City Architecture Office is located in two exhilarating cities; Edinburgh and London. As well as the internet, transport infrastructure supports our communications. A folding bike and a train are the perfect means to cover short and long distances. By these modes, the journey between our offices is an inspiring experience.

The descent into diesel fumed Waverley station, boarding a train, then pedalling off into the human intensity and noise of Kings Cross and central London is equalled by the return leg: speeding north, then ascending the Waverley ramp to emerge into breezy air and the concentrated vista of the Old Town, Castle, Galleries and New Town. It is a potent moment of arrival matching that of stepping out from Santa Lucia Station onto the Grand Canal in Venice.

Edinburgh is experienced in different ways and at many levels by each inhabitant. My vision of the future holds opportunities for a vibrant international capital: as well as trams and a new estuarine crossing, there could be an urban rail system, high speed rail links with Glasgow and Europe, a cycle friendly, green city with local hubs and piazzas that embraces high density living and sustains high value working.

There are always new things to be discovered in Auld Reekie, and if you can master cycling here, you could cope with it anywhere- allez grimpeurs!

Moray Royles is Principal at City Architecture Office, Edinburgh (CiAO)

Is there such a thing as ‘urban ecology’?

John Newton

What on earth is urban ecology? It's certainly a much-abused term and appears to mean anything from the trendy street scene, to descriptions of what is growing on city roofs and walls. Coming from a plant, animal and ecosystems background I tend to see it more in the latter terms, although as a resident of Brixton, South London, I can also appreciate the former view! Maybe the two views meet in the middle? Certainly a massive challenge for the 21st Century is how can we make our ever larger and more urban cities pleasant and ecologically sustainable, and exciting places to live, work and play.

This is where the connection with the plants and animals that normally shape our understanding of ecology plays a critical role.

The principles of ecology that apply in a rural area apply in a city – plants require light, nutrients and water to survive, animals are influenced by habitat and places to breed and shelter. But in the urban environment these are often formed accidentally as a result of a hiatus in development, as a lost corner plot or an open space where the prime purpose is recreation. Even the built form plays its part. Peregrine falcons nesting on the roofs of tower blocks instead of cliff faces, black redstarts adopting the canyon of the inner city as opposed to the arid natural forms elsewhere in Europe, or the rare lichens, mosses and ferns that crop up on walls and monuments in some of the old church yards.

These plants and animals all play their part in the city, regional and UK ecosystems, and are of interest in their own right to many people living in the urban environment. However, perhaps more relevant are the urban ecosystems that not only help attract and support this wide range of interesting flora and fauna but also play an important part in sustaining the quality of life for human inhabitants.

Only now, with climate change threatening, are we starting to value the role these ecosystems play. The UK National Ecosystem Assessment suggests that if the UK's ecosystems were properly

protected and enhanced they could add an extra £30 billion to the UK economy. Neglect and loss of ecosystem services may cost as much as £20 billion to the economy per year (1). These ecosystem services include those provided by open spaces in absorbing rainfall, reedbeds in cleaning up our waterways, masterplans that allow cooler air to be funnelled through to city centres, waterways' in cooling the city, parks and other open spaces acting as city air conditioners – for free and no energy consumption! In a sense this is all about using natural process to manage natural events, something which to a large extent we have lost in designing our urban environments

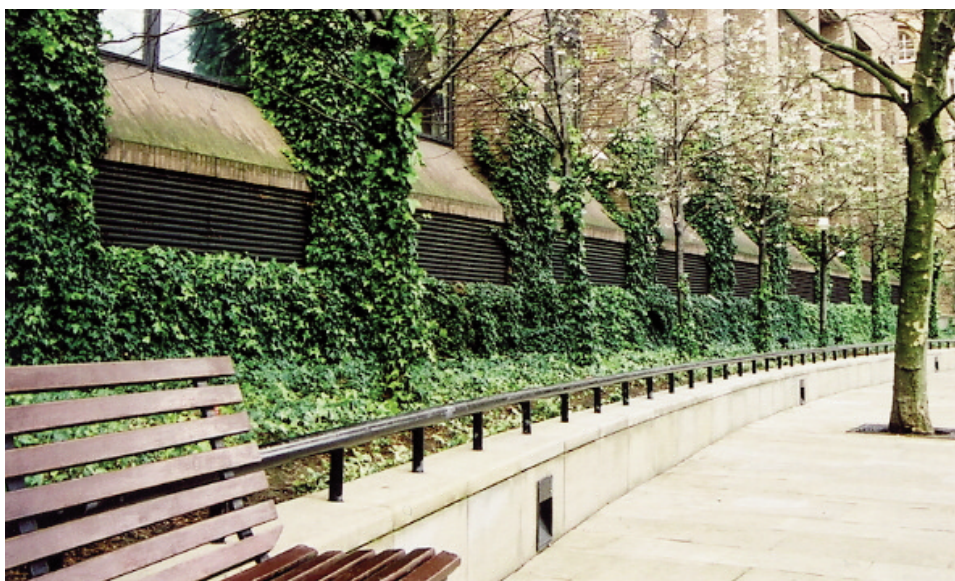
These natural processes make living in the city bearable – but sadly are only often really valued when there is a threat to remove them. When that happens not only is there a direct impact felt by people just through their loss (witness the recent events in Taksim Square, Istanbul) but overall the city environment loses out and costs to keep the city in good condition increase. By planning with natural habitats in mind (whether they be parks and open spaces, waterways, brownfield site, pocket parks or green roof and walls) and planning strategically, we not only help conserve and enhance wildlife in the city, but make life more bearable.

Green walls and roofs are a growing trend, but there are much larger opportunities to create real green infrastructure. Recently we were worked

with Better Bankside Business Improvement District to undertake a Green Infrastructure Audit (2). This mapped the potential there is in the Bankside area (London SE1) to retrofit green roofs on buildings in the area. It is estimated that an area equivalent to over 10 football pitches could be greened in this way. This audit has prompted a range of diverse parties including local government, corporations and third sector groups to sit down together to discuss what can be done jointly to kick start the creation of more green infrastructure within the confines of what already exists. One small initiative has been to retrofit a green roof to a café in Flat Iron Square. More challenging are the acres of flat roof on office buildings, but as the need to have sustainability policies creeps on to the agenda of the law firms, accountants and management consultants, so the demand for green roofs, walls and other features also gathers momentum. My company has worked with two universities in the heart of London who are keen to demonstrate that biodiversity and ecosystem services are as much a part of their sustainability agenda as are materials, energy and water use.

Whilst there can be biodiversity gains on fitting green roofs and walls, the other environmental benefits may be even more compelling – ameliorated storm run-off, cleaned up air and water, insulation and

BELOW: Planting on office buildings, London
Courtesy: The Ecology Consultancy





LEFT: Tall Thrift in a churchyard
 Courtesy: Alex Prendergast

protection of building structures, contribution to city cooling and aesthetic contribution to the visual environment of the neighbourhood. At the street level, SUDS features like rain gardens, contribute in similar ways but are perhaps an even more obvious reminder to city dwellers of the contribution that nature makes to our daily lives; indeed, that as humans we are very much a biological entity that benefits from maintaining healthy ecosystems, of which we are very much a part.

This summer we have been running a Citizen Science project for the Greater London Authority recording all the wildlife inhabiting the Piet Udolf designed gardens in Potters Fields, London, close to County Hall. The site has been designed as an aesthetic contribution rather than a wildlife habitat, but even here, three species of bumble bee and a number of bird and butterfly species have been recorded. The hope is that the employees from the GLA, and other local businesses, will get involved and continue to record, and enjoy, the wildlife they encounter in their local patch.

So, the answer to the question 'Is there an urban ecology?' is yes, most definitely and there is much more to it than a corporate green roof. Conserving wildlife in cities is not just about plants and animals it's also very much about making life in the city more bearable and enjoyable and creating natural ecosystems that provide cost effective benefits as well as additional wildlife habitat. So, let's start to value and promote natural ecosystems when designing urban areas and the buildings and infrastructure that sits within them. And at the same time why not start taking binoculars, a hand lens, or a camera to work, and see for yourself what's on your doorstep?

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How can people take control of their cities?

Becca Thomas

Architects and urban designers across Europe may have noticed that in 2007 we reached the end of a period of unsustainable growth. The days of the property boom and cheap credit, which sustained this type of urbanism, are now well and truly over. This is a depressing thought, but recession has brought with it a renewed interest and growth of different ways of thinking and creating our cities, ways of improving and building neighbourhoods which rely on less.

Across the UK we are seeing collectives, community interest companies, and even housing associations being proactive in actuating projects themselves with an informal DIY approach, mixing placemaking and placeshaking to promote socially sustainable and engaged urban spaces. Placeshaking, a term coined by Dan Thompson of the Empty Shops Network in his TEDx Bedford talk (1), covers a range of urban interventions, encouraging collaborations and practical experimentation in our cities. The idea of placeshaking is for people to be 'everyday radicals' by facilitating the most basic of human desires: social interaction, and thereby introducing joy into our social spaces.

Building socially sustainable places relies on architecture and environments which make us smile, which engage and encourage the acts of gathering and conversation. Driven by economic and urban crisis, the trends towards openness and ownership: community led, open source, and co-creation; have not escaped the architectural profession. New approaches are redefining the role of an architect and forcing us to think creatively about the way we work.

"Many shops are closing and many more will in the next year... change is good, and change does not mean the end... It's time we had something different. We deserve better. Imagination and creativity will win... making shops that fulfill a useful social function, bring a benefit to our towns beyond mere selling."
Dan Thompson (2)

One of the most visible problems in the urban realm has been the inexorable rise in derelict land and empty shops throughout cities and communities. It is estimated that a staggering 1 in 8 are currently empty and up to a fifth of these are predicted to never be used for retail purposes again.

As Dan Thompson says, imagination and creativity will win: these derelict spaces offer a unique opportunity for participatory urbanism, helping to support and grow socially sustainable approaches to the urban renewal process, giving communities and designers a clear role in activating their environments. There is a new generation of architects, urbanists and designers emerging out of, and in response to, the latest recession. Innovation and an ability to do things differently is what makes these practices so potentially powerful, and in the process they are rediscovering the value of community, the strength in empowering people, the richness of collaboration, and an authenticity in quality, fun socially sustainable design.

"At a time of economic difficulty, it is encouraging to see new innovative young practices springing up. Moreover, it is

encouraging to see that these new practices are exploring new ways of working - with other disciplines such as artists; as social enterprises; by being mobile and proactive. It is also clear to me that the new emerging practices have been very adept at engaging with communities and use social media to reach beyond the conventional client base for architectural services. Establishing this as a central part of your business model, alongside a positive 'can do' attitude, is crucial for generating work in the current climate."

Ian Gilzean, Chief Architect for Scotland.

Since forming in 2011 Pidgin Perfect have been working towards a new way of thinking about architecture. Our aim is to make a real difference by giving people a sense of ownership over projects in their communities. One key theme in our practice has been the research and production of temporal, haptic projects within derelict and vacant spaces.

Working with The Scottish Government, Architecture and Place Division, and Glasgow City Council's Stalled Spaces Initiative, we have been developing INstalled, a national programme for temporary and community-led reuse of derelict and vacant land.



ABOVE: Concrete Garden Harvest
Courtesy: Pidgin Perfect

This project looks to pop up champions from across the UK including: empty shops initiatives like 'We Are Pop Up' in Brighton and 'Revolutionary Arts' in Worthing; and the growing number of 'Transition Towns' across the UK, who particularly encourage low impact living and food growing; to investigate how we can encourage a collaborative and sustainable programme.

This research took us to Helsinki, the World Design Capital 2012, to experiment with stalled spaces, collaborating with participants from the European Architecture Students Assembly and local think tank Demos Helsinki. Based at a disused power plant and cargo port in Eastern Helsinki, which has been rethought as a cultural centre for the city, we experienced an ongoing experiment in the reuse of empty space for social gain. Encouraging festivals,

“The true purpose of architecture is to help make human existence meaningful”

Keith Bradley (4)

informal use and street culture ‘Kalasatama Temporary’ is a concept developed by the city council, but its light touch has helped support community collectives and activist groups to fully embrace the opportunities of this space and together they have created a vibrant sustainable space for joyful social interaction throughout the year.

Helsinki is a city which clearly promotes social uses for its empty spaces, and whilst there we discovered some of the cities most successful urban entrepreneurs: community gardens and cafe on a railway turntable in Pasila; bike festivals, terrace farms and creative workspace ventures in derelict warehouses in Jatkasaari; and, We Love Helsinki encouraging people to take over their city.

This also included meeting Tuomas Toivonen, an architect and well known rapper in Finland (3) he is also one half of NOW, an architecture practice dedicated to new ways of creating in the city. NOW could easily be viewed as ‘indie’, in the sense that Tuomas, and partner Nene Tsuboi, often act independently from clients and act as community entrepreneurs, taking all the necessary risks, including financially, to build and make their world more interesting and enjoyable. Recently completed is their Public Sauna which will be run by Tuomas and Nene, where they will do everything from cleaning towels to heating ovens and selling tickets.

Having seen how exciting a socially engaged urban realm can be, we returned home, keen to test our theories about participatory urbanism. Collaborating with Glasgow Film and local dance companies we designed and produced a pop up outdoor screening on the embankment of the River Clyde as part of Glasgow Film Festival 2013. The key aim of the project was to produce an interactive screening of “Girl Walk // All Day”, a 90 dynamic minute short film music video set in New York City. Held on a freezing evening in early February the event began with a flash mob like ‘Dance Walk’ which danced its way through the city from

BELOW: Girl Walk, New York, 2013
Courtesy: Stuart Crawford



Glasgow Film Theatre to the pop up cinema site gathering a public audience along the way. Throughout the screening local dance organisations performed choreographed interactive dance routines accompanying the energy of Girl Walk // All Day and encouraging audience participation. The dramatic transformation of the redundant and grey stalled space site into an inspiring and engaging performance theatre for one night only brought a new energy and audience, changing viewers perception of the purposes and potential uses for the site.

The temporary reuse of derelict and vacant land in our cities has created a more proactive and ecological approach to the urban realm. Individuals, creative practices and communities are using placeshaking methods to engage directly with the built environment; being more efficient by demanding more of the least used areas in it. This is as visible in Glasgow’s many community gardens, which have sprung up in gap sites across the city and champion the production and celebration of locally grown food, as it is in the large scale redevelopment of Helsinki’s ports as cultural spaces.

There is no straightforward road map towards a socially sustainable future of the urban realm, but by taking unique opportunities people are succeeding in placeshaking urban environments for the better. Evidently, if people continue to empower themselves to make a difference and have fun, anything is possible.

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Becca Thomas is a founder of Pidgin Perfect.

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SEDA REVIEWS

Rolf Roscher - Concrete Garden
ERZ Studio

ERZ

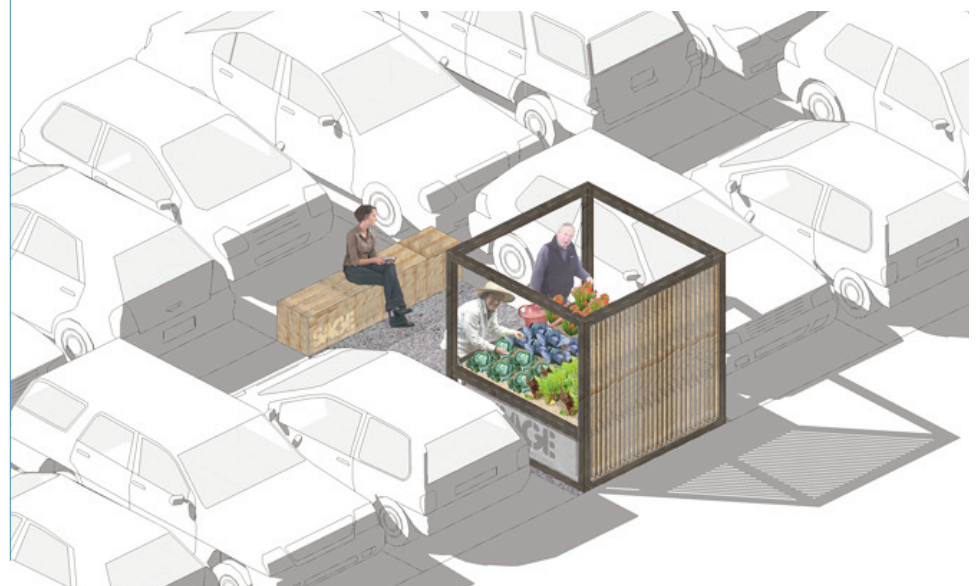
were commissioned by the Glasgow and Clyde Valley Green Network Partnership in 2009 to undertake a strategic study focused on urban food growing in the Glasgow Metropolitan Region. The study was based on a comprehensive analysis of the position at that time, informed by extensive consultation and research. Why was there so little growing happening? What were the barriers to groups getting growing projects off the ground? An innovative strategy was developed focused on generating a massive step change in local food growing activity. One strand of the strategy was to bring derelict and vacant land in core urban areas into use for growing on a temporary (and where possible permanent) basis. ERZ designed a modular system for creating growing spaces on brownfield sites. This strand of the strategy has been moved forward and through the combined efforts of a number of agencies 5 growing projects have been created and are currently in active use, these include growing spaces in Possil, Shettleston



and Greyfriars in the Merchant City. Two more spaces are shortly to be implemented and will be ready for the groups to start growing in 2014.

Funding was sourced for a project officer to co-ordinate, deliver and secure ongoing funding for a stand alone organisation (offering community support, assisting in co-ordination of delivery and horticultural support to groups). Funding ended after 2 years. As a practice, we are however continuing to help deliver growing spaces in line with the aims of the strategy.

ERZ are a landscape and urban design firm based in Glasgow



TOP RIGHT: Possil garden layout
BOTTOM RIGHT: Merchant City futures,
SAGE unit
All images courtesy of ERZ Studio

Jonathan Charley: *Memories of Cities*
Review by Barnabus Calder

MEMORIES OF CITIES TRIPS AND MANIFESTOS

'Designing for Health and
Wellbeing' SEDA Conference 2013
Review by Dave Seel



Memories of Cities: Trips and Manifestos is a collection of writing by Jonathan Charley – the latest outcome of the serendipitous process which he reports as taking him from a building site in 1975 as a scaffolder's mate to an architectural writer, teacher, curator, and photographer who has influenced, challenged and excited generations of students and readers.

Memories of Cities employs Charley's vast sweep of cultural and theoretical reference, handled with his usual confidence and clarity. It brings together nine essays, reworking each and adding new introductions to become a single text much more coherent in its message and its voice than is sometimes the case with collections of articles. Under an appropriately red cover, Charley's political understanding of the built environment is the consistent subject of the book: whether it is commenting on contemporary developments, historical episodes or fictional utopias it is always fundamentally about social and political injustices – particularly those brought about by capitalism – and their architectural manifestations.

Charley declares himself 'not an historian so much as someone who writes about history', and accordingly breaks the academic convention of single-voiced, apparently impartial writing. These essays are narrated in a range of styles and voices including (chapter 4) an imagined journalist living in 1920s and '30s USSR, and (chapter 1) a dialogue with an imaginary student, each question and answer prefaced by an extract from a series of diaries and texts Charley wrote during or inspired by visits to Moscow from 1984 onwards. Often using the historic present, many chapters conjure up the smells, sights and sense of urgency of the moments he recreates, bringing vividness to well-known episodes as well as those he unearths from obscurity. My next visit to the Jardin de Luxembourg will be uneasily haunted by the spreading lake of insurgents' blood which led to its temporary closure in 1848.

The centre of gravity of the book is C19 and early C20 Europe, with the grandiose lawcourts of Glasgow, Liverpool and Brussels being placed in harsh juxtaposition with the slave-labour which financed them (chapter 2), and (chapter 3) a tour of Paris during and immediately after the Commune, illustrated with a series of fascinating contemporary postcards depicting the ruins of buildings and monuments destroyed for their political associations. The Soviet Union, a major research specialisation of Charley's, recurs repeatedly, including mentions of his repeat visits to the collapsing Narkomfin building and Russokov Club: 'like visiting a terminally ill relative, regularly checking up on the state of health of these two "memories of the future" has long since become an obligatory ritual.' The chapter which starts with these two ends with an astonishing picture of a recent revivalist block modelled closely on Stalin's socialist realist extravaganzas.

Charley's photographs illustrate most chapters, his preferred long focal lengths compressing urban contrasts into the same close juxtapositions as his text – the speculative housing block behind a hoarding branded 'UTOPIA' or the slums crushed-in under a raised motorway. The tight, strong compositions have a beauty to them which often belies their disturbing or uncomfortable subjects, but in this opposition between medium and message they share a tendency with the text: the content is uncomfortable and thought-provoking, but the writing is consistently engaging, exciting and readable.

Memories of Cities ought to be read well beyond architectural academia, and is written with sufficient clarity and force to grip anyone who has an interest in the world around them.

Back in May, SEDA assembled at the Camphill Community at Newton Dee outside Aberdeen, with the newly rebuilt Phoenix Hall by Camphill Architect the venue to discuss the ways design can address the health of users, and a forum for discussing SEDA's activities, led by new Chair, Matt Bridgestock.

The gathering was also an opportunity to reflect on the legacy of SEDA founder member Howard Liddell, who died in February. Long-term associate Chris Butters started the conference with a talk 'From Passivhaus to Healthy House', questioning the emerging proscribed technology-led mainstream approach to the environmental design of buildings being set by Building Standards. He presented a compelling argument for a more holistic approach using more natural materials and processes, to encompass broader considerations of physical and social health.

Nicola Watson of Maggie's Centres gave an outline of the philosophy behind the well-known cancer support buildings, designed by high profile architects. Outlining the upcoming Maggie's Aberdeen by Snøhetta, she presented a clear case for how a positive environment and can make a real difference to the most vulnerable, as they try to come to terms with life threatening conditions. With the design of the buildings' exteriors completely at the architects' discretion, and freedom given in designing to the internal requirements, it demonstrates how similarly supportive responses can come through wildly differing styles, through a good client and well thought out brief, and a team focused on what really matters to the building users.

Following the award of the Krystyna Johnson Award (see following page), Anna Poston and Julio Bros-Williamson outlined their plans for developing future research through SEDA (see his appeal for proposals on pg2). Sandy Halliday's heartfelt record and tribute to Howard, as a man and as an architect, gave everyone plenty of food for thought on the principles behind the organisation, and what we should be doing with it.

Following Chris Butters exposition of the Patrick Geddes' views on the health of society, a key source for much of this edition's ideas on cities, there were tours of varying local projects, starting with the Camphill buildings, led by Simon Beckett of the community. In Aberdeen we were given a thorough tour of the new SEPA HQ by Keppie Design, which seemed to embody the debate Chris raised, where the plant room seemed the best functioning generous space, maybe illustrating how getting a BREEAM Excellent rating delivers some material improvements, but with less attention to quality or long term performance. Other more socially oriented projects visited included the Wood End Barn Arts Centre in Banchory (cracking food and music), and Genevieve Jones own house, part of her efforts in helping organise the really enjoyable event, with Mary Kelly.

Alongside the election of new board members and Chair, the co-incident AGM focussed on organising for the future and a range of activities that the members want to promote. Paul Barham stepped down as chair from the board, as did former-chair Robin Baker, both of whom were copiously thanked for the services to SEDA, and new members stepped up into their places. The resurgence of social activities like Green Drinks was seen as a promising development, alongside growing links to other organisations, like the SUST Materials Library. Such things are vital if we are to live up to Howard's mission: to get out, challenge the way things are and to make things happen.

SEDA DOES ...

For details of all upcoming events go to the 'Events' page on the SEDA website.

SEDA Green Drinks Glasgow

Talk by Matthew Petticrew,
structural engineer, Elliot & Co.
25th July 2013

In July Matthew Petticrew of Elliot and Co structural engineers was invited to speak to SEDA members and a selection of interested others in Glasgow. Entertainingly, he covered engineering breakthroughs in understanding, to the reliance of modern practice on safety factors, and his views on how engineers and building design should be...

Doing More with Less

"Modern scientific analysis frees us from a rigid dependence on experience, but it does not invent ideas. The craftsmen-engineers of the past were constrained by the need to extend their experience in small steps, while modern scientific-engineers are often constrained by the limitations, and occasional absurdities, of codified design. It follows that doing more with less relies on the curiosity of engineers and their desire to explore new ideas and to always ask why and how?

Those with responsibility for recommending and appointing engineers must facilitate this process; the lowest common denominator is highly unlikely to produce the next Brunelleschi or Candela."

The chat over sociable drinks followed, and more will come in the near future in the West.

BELOW: SEDA KJ Award winner Claire O'Neil's primary school
Courtesy: Claire O'Neil

BOTTOM RIGHT:
Green Drinks Edinburgh, September
Courtesy: Matt Bridgestock

Krystyna Johnson Award 2013

Lighthouse, Glasgow
1st November

SEDA were delighted to re-launch this award in 2012, which was set up by Jim Johnson in memory of his wife Krystyna - both inaugural SEDA members - to encourage second year architecture students to bring ecological thought to their work from the outset. Each of the five Scottish Schools of Architecture promoted one project in their curriculum for consideration, with one winner announced from each School as well as an overall winner for the whole competition. They were chosen not only for their ecological approach but their aim to produce an object of beauty.

Winners from the five Scottish schools then had their projects presented in the ongoing exhibition at The Lighthouse in Glasgow, running until 28 November.

Overall winner: Claire O'Neil, University of Dundee (Image: below)
Individual school winners: Ren Yu P'ng, Mackintosh School of Architecture; Archie Cantwell, ESALA; Niklavs Krievs, Strathclyde School of Architecture; Jan Hajek, Scott Sutherland School of Architecture

The project briefs selected for 2014 are also described in the Lighthouse exhibition with Sheffield University as this year's annual guest and Melbourne School of Architecture joining the fray in 2015.

SEDA Green Drinks Edinburgh

Talk by Bruce Newlands,
Founder of MAKLab, Glasgow
12 September 2013

After the continued success of the SEDA Green Drinks in Glasgow, it was the right time to reinstate an East coast equivalent, with the prime purpose of attracting speakers and an audience who would not normally attend in Glasgow, and to also attract current and new members.

This inaugural talk, by Bruce Newlands of MAKLab, was held at Ryan's Bar in Edinburgh city centre; where attendees and the speaker enjoyed a 'drink-&-chat' and discussion over the topic that evening. Bruce's talk focused on his great achievements in the creation of MAKLab - the first open access digital fabrication studio in Scotland and located in The Lighthouse in Glasgow. The success of this studio / workshop derives from giving motivated people the opportunity to fabricate designs that in the past were only able to be done in expensive workshops or universities or colleges with restricted access. Bruce mentioned that -*"it is an open access studio that simply requires an annual membership and in return you are able to use all equipment, and get free training and advice."*

There were interesting questions and discussions around the various topics that Bruce presented, where keen members were interested in commercialization and expansion of the MAKLab idea, as well as ways in which innovation can develop in the future of Scottish built form. The evening ended with some slides from Bruce's current projects around Scotland, particularly the work he has completed and has on site at the BRE Ravenscraig Innovation Park in Motherwell and also products under development with the use of natural fibres for insulation purposes.



Next Green Drinks event: 28th November Debate 'Don't Greens Hate Cities?' jointly with the Urban Design Group
From 5.45 at the Lighthouse Glasgow, followed by drinks, please come and join in with a guest panel.

MATT ON THE BACK

“If you haven’t grasped it yet, SEDA is getting vocal”

Matt Bridgestock

Previous magazines have highlighted the increasing need for SEDA as the sustainability agenda becomes more mainstream. With so many new ideas, new processes and new products, the need to sift through these and make informed decisions becomes even more relevant.

Reinvigorated over the summer, this edition of the magazine drops through your door in one of SEDA’s busiest events season. There are no excuses to rant privately about the views contained within – we want to meet you, hear your views and perhaps, together, take a small step towards achieving a more balanced, ecological and equitable society.

Our last magazine issue on natural capital prompted a great deal of debate and we fueled this with the monthly Green Drinks event in Glasgow – inviting people to join us and investigate the issues further. Jonny Hughes and Rolf Roscher both proved man enough for the job with lively debates that went on late into the evening. These evenings are very revealing, what needs to change, what needs to be done, who should be involved?

Even with consensus on what we want to achieve, it is clear that the route to get there is complicated and fraught with issues. Collaborative working is needed, but where else do diverse interests such as architects, politicians, engineers, ecologists, product designers and residents come together to debate the issues?

With the world’s population becoming increasingly urbanised – more than 50% of the population live in cities – we need to find new and more ecological ways of living close together. This issue brings together a range

of people and views to debate the issue, younger practitioners, journalists and more experienced commentators and tutors of the next generation. We are kicking off this debate in Glasgow with a panel session of SEDA and Urban Design Group members. It promises to be a great night.

Ideas for future cities are also neatly presented in the Krystyna Johnston Award Exhibition running at The Lighthouse in Glasgow. We invited Architects’ Journal Sustainability Editor Hattie Hartman to give the keynote address at the exhibition opening. The urban theme will continue after Christmas with speakers such as Glasgow Cycling Czar Frank McAveety talking about how do you turn Glasgow into a velo city and perhaps a bigger issue, will people vote for it?

In Edinburgh, our Green Drinks events are taking a cue from the successful SEDA conference in Aberdeenshire and looking at developing new health, ecological materials and products. The first session with Bruce Newlands went from Scottish timber to insulation via 3D printing, recycling textiles and open source housing. Guest Editor Chris Stewart was next up, who will be followed by Peter Wilson of Napier’s Wood Studio in January, and no doubt will keep the ideas flowing until closing time. This year culminates with Show & Tell in Edinburgh – members’ projects, views and thoughts from the year: we hope you will all join us.

Linking these debates together are a series of visits to urban and rural



Photo: Andy Bridgestock

buildings which demonstrate how these ideas can be put into practice and what individuals, professionals and clients do at the small scale to effect change. The threads of ecology, new materials and collaboration are neatly summed up in these beautiful projects. Looking forward, we are teaming up with the Association of Environmentally Conscious Buildings (AECB) for the PedalHaus tour next spring, so dust off your push bike for these visits to Passivhaus projects.

Looking further ahead, we are debating the theme and location of next year’s conference and how SEDA can be involved in the Year of Architecture 2016. We would be delighted to hear from people who want to lend a hand with these events. We are also looking to expand the Green Drinks events beyond their current central belt focus – fancy putting one on in your local pub? Get in touch we would love to hear from you.

Finally, if you haven’t grasped it yet, SEDA is getting vocal this year, how can you be involved?

Matt Bridgestock succeeded Paul Barham as Chair of SEDA in May this year. As well as being a director at John Gilbert Architects, and Certified Passivhaus Designer, he is also a trustee of Skirmishes Ltd, a charity delivering voluntary assistance to communities wishing to improve their built & natural environments.



Photo: Matt Bridgestock