Autumn 2023

SEDA

Scottish Ecological Design Association

Borrowed from the Future: An Ecological Blueprint

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Autumn 2023

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's membership comprises a large number of people involved, and with an interest in design, principally in Scotland. Members include academics, architects, artists, builders, planners, students, ecologists, landscape designers, materials suppliers, woodworkers, and many more whose work or interest involves design for a sustainable future.

SEDA is a charity and is run by a Board of Directors, who are elected at Annual General Meetings. The Board is advised by a voluntary Steering Group which meets 8 times a year for discussion and for planning the activities of the Association. All members are welcome to take part in these meetings. SEDA registered as a Company Limited by Guarantee in February 2011.

A SEDA membership is a great way to support ecological design in Scotland. As a member you will receive the SEDA Magazine for free, get discounted tickets to SEDA events, and have the opportunity to connect with a wide network of talented designers.

Editorial team

Shravya Dayaneni, Viktoria Szilvas, Doug Tullie, Nick Domminney

With thanks to all our contributors, sponsors, and supporters.

What do you think of this SEDA magazine? Do you have any disagreements or something useful to add to the issues covered? Do you have an idea for an article? Drop us an email!

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Cover image: Regenerative Micro Environment; Shravya Dayaneni

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Image:
Pioneers from Bridport Cohousing in Dorset sharing a picnic

Borrowed from the Future: An Ecological Blueprint

Shravya Dayaneni

This edition is inspired by "The best way to predict the future is to design it." - Buckminster Fuller. Authors and thought leaders in this issue are tackling the most complex issues of our time. Among these are food systems, built environments, fashion, and active travel.

Beginning with **'Nature's Abundance'** by Dr Deborah Long discusses how to rebuild lost nature. Bringing **Active Travel to life:** One of the most passionate organizations, Cycling Scotland presents 'pedals and policies' with an inspiring case study. Reviewing **Eco-conscious Fashion**: A ray of hope can be found in the work of social enterprises amongst communities. Exploring the concept of **"Foundational Flourishing of the Table"**: emphasizing the importance of reconnecting with the more-than-human world by Gabby Morris.

As well as offering people **a more humane and equitable way to live**; David Somervell, the host for the **co-housing event**, comments on the opportunity. In the quest for sustainable built environments, a number of innovations were envisioned. But it is just as important to make them more accessible. I brought you all, **the tool** I developed during my recent research, in the hope that we **can make decision-making more ecological from ground up**. Bobby Jewel's reflections on his experience within the built environment will help us **avoid falling prey to greenwashing**.

It was just a few days ago that the SEDA Conference for 2023 concluded. This was an in-depth examination of retrofitting practicalities titled 'Progressing Retrofit'. Following Sandy Halliday's overview of the conference, some critical aspects are covered by some of our conference speakers and their experiences. As we wrap up, we reflect on the future "What do we do next?" by Magdalena Blazusiak and "Make Do and Mend" by Richard Atkins.

This year's Krystyna Johnson Award shows, once again, the best of our architecture schools' year 2 students. The awards' sponsor and judge, Jim Johnson, described the entries as *"an inspiration to both staff and students"*. The finalists explored a wide range of topics, and we've put together a few of their project overviews to take you through the possibilities.

According to Tom Morton, SEDA's recent engagement with the Scottish Government highlights the importance of focusing on both technical and cultural developments in the construction industry in the wake of COP26.

Additionally, it's an exciting time for the relaunch of Kerr Macgregor's Award by our SEDA Solar group. This award recognizes outstanding contributions to Solar energy, and we've covered what the sponsors had to say.

Under our SEDA Land's section, Gail Halvorsen reports on the events "Bio Caledonia - A Farming Evolution" and "Scottish Rural Housing: Lack of is crippling businesses". We also present upcoming events so you can get involved with SEDA and design the future we want.

I hope you enjoy this edition as much as our Magazine team did. In our upcoming editions, we're considering a new section: the 'SEDA Encyclopedia'. We invite expert contributions and creative ideas to bring this section to life.

SEDA Magazine is committed to covering the association's activities comprehensively. It may happen, however, that we unintentionally skipped over a project, or a topic of urgency, or didn't include content of interest to you. I would appreciate any feedback you can provide at magazine@seda.uk.net so that we can improve the magazine and ensure it aligns with readers' interests.

As your editor, I'll celebrate aspirations, showcase impactful stories, and highlight evolving ecological breakthroughs, reflecting the diverse world of ecological design. I continue to look forward to bringing you the best of SEDA with our magazine team.

It is with great pleasure that we acknowledge the sponsorship of our 2023 Conference by Sheep Wool Insulation. ■

Building Resilience through Nature's Abundance and Ecology

Dr Deborah Long, Scottish Environment LINK

Designing in nature's resilience

Nature's abundance in Scotland is vast. But it is dissolving. The State of Nature[1] assessment in 2019 found that 11% of species in Scotland are at threat of extinction. This is happening in a country renowned across the world for our natural landscapes, our vibrant seas and our amazing wildlife. The next State of Nature assessment will be published in 2023 and its' messages haven't changed. Species are still at risk of extinction, habitats are diminished and fragmented. This reflects the ongoing and relentless erosion of diversity across Scotland. With that erosion of diversity, we lose our resilience to change.

And change is monumental at the moment. This summer of 2023 we have witnessed catastrophic wildfires across the world, including in Scotland. We are witnessing heatwaves that are hotter and more intense than ever recorded; falling ice volumes in Antarctica and widescale species migration further north or further uphill both on land and at sea. The planet is sending us a clear signal: we need to get our act together and turn around our way of living. We need to consume as if our lives depend on it. Which, of course, they do.

This means emitting less carbon, storing more carbon, using fewer raw natural resources and embedding resource use into a circular economy. But we also need to do more for nature: if we continue to lose our species, simplifying our ecosystems, then at some point, and we do not know where that point is, they will cease functioning. They will stop providing us with food, clean water, and fertile soils.

While there are many things we could do here in Scotland, there are a few which would have significant, widescale and impactful results. Of these, halting carbon emissions and halting species and habitat loss is key. But also key is building in resilience across natural landscapes, across seascapes and across urban landscapes. This is where deliberative design comes in. There is little point joining up random pieces of semi-natural habitats or protecting tiny populations of species that cannot breed and survive into the long term. They will eventually die or fade away. We are at a stage now where we need a designed approach that rebuilds resilience by reconnecting nature, recharging its abundance and ensuring ecological processes can work across the artificial barriers we've put in their way.

An example: Scotland, and the UK, has one of the most nature depleted and fragmented landscapes in the world. Our Biodiversity Intactness Index, which measures biodiversity loss[2], is in the bottom 15% in EU countries and in the bottom 12% worldwide[3]. Despite our international reputation for landscapes and wildlife, it's not doing well.

Scotland's deer forests are without a tree, grasslands survive in pockets and can come and go with the vagaries of agricultural support schemes, hedgerows are gappy and discontinuous. One of the simplest concepts and most impactful thing we could do is design and implement nature networks[4]. This isn't about planting more hedgerows or trees (although that would be good too), it's about mapping what we still have, understanding the ecological processes those habitats and species need to survive and then rebuilding and reconnecting those ecological processes. It could mean removing deer and herbivore pressure to enable the natural regeneration of native trees and shrubs. Mar Lodge and Glen Feshie provide fantastic examples of this approach. It could be encouraging and even planting trees along rivers, especially in the uplands, to shade water so fish can reproduce and survive to adulthood. In urban areas, it could be linking gardens and green spaces together with hedgehog highways, contiguous tree cover and sequential planting to provide year round food sources for birds and invertebrates.

That all requires a design approach. For woodlands for example, the work of Hutton Institute on native woodland potential[5] enables us to see what a designed future looks like, where we know what still survives, where to encourage regeneration, where to plant trees and where to protect open habitats.

We then need to know how to connect what we still have. Not necessarily in a physical sense but in an ecological sense. For example, twinflower, an iconic plant of Scotland's pinewoods is pollinated by small flies and hoverflies, which can only fly short distances[6]. Twinflower patches that are too far apart become genetically impoverished, their seed productivity declines and their resilience to future change is diminished. But as long as twinflower or other pollinator food

Images:
Bottom left, Twinflower
Bottom right, Glen Feshie

plants are within flying distance, resilience is rebuilt, the genetic basis of each population is strengthened and their chance of survival into the future is increased. That means we need to make sure different twinflower patches are within the flying capability of its pollinators.

This principle of design is badly needed across our rural and marine environments to rebuild nature's resilience. We need to embed effective ecologically coherent design and require it through planning regulation and guidance as well as remove barriers to nature restoration by funding coordinated restoration across large areas. Without it, we will fail to protect what we have and future generations will inherit an even more impoverished landscape, seas and wildlife.

[1] https://www.scotlink.org/publication/state-of-nature/

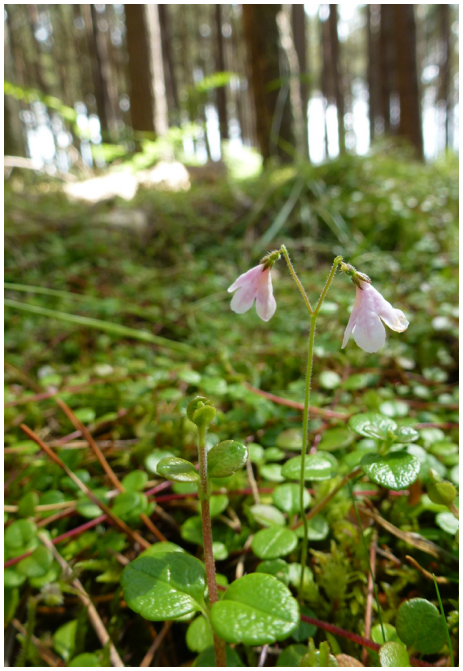
[2] https://www.nhm.ac.uk/our-science/data/biodiversity-indicators/what-is-the-biodiversity-intactness-index.html

[3] https://spice-spotlight-scot/2021/06/04/how-does-scotlands-biodiversity-measure-up/

[4] https://www.scotlink.org/link-campaigns/nature-networks-matter/

[5] https://www.hutton.ac.uk/learning/exploringscotland/soils-and-sustainability/increasing-biodiversity

[6] https://cairngorms-co-uk/caring-future/cairngorms-nature/twin-flower/



Pedals and Policies: Shaping Resilient Communities and Steering Towards Sustainability

Christopher Walker, Cycling Scotland

Introduction

Cycling Scotland is the national cycling organisation. Working with others, we get more people cycling, more safely and easily in a better environment. As Scotland strives towards net zero, the role of sustainable transport is becoming increasingly important in meeting our sustainability targets. When 65% of all journeys in Scotland are under 5km, this shows the importance of using active and sustainable transport for short journeys. Improving access to sustainable transport at a community level has the potential to have a lasting impact on mental and physical health, the air we breathe, congestion issues, and the local economy.

In a world where the impacts of climate change are becoming increasingly visible, reducing emissions in one of our most polluting sectors is more important than ever. In recent years, we have seen the introduction of low emission zones (LEZ) in cities across the country. With city centres facing high levels of pollution, this is shaping the way for a more sustainable future and whilst electric and low emissions vehicles can play a role in reducing emissions, an even more crucial consideration is improving access to active travel and sustainable public transport.

Policy context

Changing how we travel is one key part of the climate change solution: we need to make it easier for people to cycle, walk, wheel for short journeys, access e-bikes for longer or hillier routes, and improve connections with public transport for longer journeys still. Scotland's Active Travel Framework sets out how we can achieve this, putting people and communities at the heart of the solution. The 2030 Vision for Active Travel highlights this: "Scotland's communities are shaped around people, with walking or cycling the most popular choice for shorter everyday journeys".

Looking further into this in a policy context, Fairer Duty Scotland places a legal duty on public bodies to consider how they can reduce inequalities of outcomes caused by socio-economic disadvantage, when making strategic decisions. Communities across Scotland experience transport poverty, and this legal duty means that socio-economic disadvantages will come into play when developing things like Local Transport Strategies. Having a consideration for this and adopting the sustainable travel hierarchy in decision-making has the potential to build resilience and make communities safer and more accessible.

Case study

A case study that shows the amazing role that sustainable transport can play in building resilient communities is the work completed by Climate Action Strathaven (CAS). They are a charitable organisation based in a small town in South Lanarkshire, who developed their own bike repair hub in the community. This now provides affordable repair services to the community, as well as affordable access to bikes through their refurbishment scheme. CAS also developed an e-bike hire scheme, providing further opportunities for everyday cycling. This project was jointly funded by the Energy Saving Trust and Cycling Scotland to access a dedicated fleet which includes e-bikes, an e-cargo bike, step through e-bikes and e-trikes, bike maintenance equipment, and cycle training sessions.

In addition to improving access to bikes, CAS also developed and launched their own bus service in October 2022. As well as connecting the community to nearby towns, residents of Strathaven now have a regular bus service into Glasgow, a service that hasn't been there for over 30 years. With over 28,000 tickets issued in six months, it's clear that this project is a big success. It highlights many of the benefits and opportunities with sustainable transport: reducing transport poverty, reducing carbon emissions, increased employability through better transport links, improved physical and mental health, and reduced isolation through joint up working and community empowerment.

Making changes

Fear of road traffic is the number one reason why more people don't cycle. Sadly, serious cycling injuries have been increasing over the last fifteen years. Every week in Scotland, four people cycling suffer serious, potentially life-changing injuries, usually from a collision with a

Image:
Winter Cycling, Cycling Scotland

vehicle. Through education and training, campaigning for improved infrastructure, and improving access to active and sustainable travel, communities have the potential to provide viable alternatives to cars, meaning reduced traffic levels, improved air quality, and safer streets.

Whilst access to sustainable transport is essential for all communities, those in rural populations are more likely to experience difficulties with it. The car dependent nature of more rural communities stems from a lack of access to viable alternatives like reliable public transport, and safe infrastructure for active travel. If people don't have any viable alternative, then their options are often limited to a car. This has a large impact on those that can't access to a vehicle due to financial barriers. As well as being reliable, public transport should easily integrate with cycling. Having suitable storage solutions on buses and trains can allow for multi-modal journeys, and further improve access to sustainable transport. This is why initiatives like the one delivered by Climate Action Strathaven are so important. Having these alternative options available to the community can address these impacts and mean that anyone can have easy access to services, employability, education, and community involvement.

When looking at resilient communities, it's clear that putting people at the heart of decisions is essential. When designing spaces, if we focus on people making active journeys and reliable public transport and rather than individuals in cars, there is an opportunity to build safer, more productive, and more enjoyable communities. It is important to create dedicated spaces to socialise, create links with the surrounding community, and have easy access to local services. This can reduce inequalities and create a sense of community with space to engage, learn, share, and build.

Conclusion

As we face ongoing challenges with inflation and a cost-of-living crisis, building resilient communities is more important than ever. Addressing inequalities, improving access to services, boosting the local economy, and improving physical and mental health, are all becoming increasingly prominent in strategic decision making. Sustainable transport is playing a key role in this, and the future holds some exciting opportunities for communities across the country. ■

Weaving Sustainability into Fashion: The Role of Eco-conscious Clothing Consumption in Fostering Resilient Communities

Emma Randall, Glasgow School of Art

The Current Environment of Consumption

In a society where a "want it now, need it now" mindset is ever prevalent, industries that provide quick and cheap services and products are booming. The fashion industry is no exception, as what we know to be "fast fashion" has begun to dominate sectors such as the garment industry. Fast fashion is a term that was coined by Zara in the late 1980s and describes clothing designed with the intention of having only a short lifespan and a fast turnover. Alongside contributing to increased carbon emissions, the fashion industry is also responsible for immense pollution, water wastage, and the emergence of microplastics in the ocean.

As the population notices the detrimental effects on the environment, eco-conscious individuals have turned to shopping sustainably in a myriad of ways. Whether it be buying second hand at a charity shop or supporting an independent business focused on ethical materials and labour practices, this shift in consumerism has begun to offer some reprieve in the rapid consumption of clothing.

Glasgow's Relationship to Sustainability

Glasgow is a city that thrives on a culture of second-hand and sustainable shopping with no lack of charity and vintage shops. Different streets within Glasgow present as microcosms of their broader community through their second-hand stores. Great Western Road in Glasgow's West End is teaming with vintage stores selling pieces that reflect the individualism and youth of the students that dominate the area; Victoria Road in Govanhill reflects its culturally diverse community with a plethora of charity shops stocking pre-loved clothing from its residents, reflecting their backgrounds. Second-hand shopping has become a popular social activity as well; you will often find groups of friends in shops working together to find a specific piece or leisurely sifting through for something that catches their eye. Second-hand shopping has started to become a hot topic on social media, and with this increased interest, shops have begun to raise prices – in the name of supply and demand, as sales increase, the prices do as well. The insatiable excitement of the "treasure hunt" has led to charity and second-hand shops becoming an entrepreneurial haven for resellers, which potentially pushes out members of the community who rely on access to quality, affordable clothing. When someone described as an average consumer purchases in mass quantities from charity shops, they run the risk of taking away from the demographic of income deprived individuals these shops strive to serve.

Finding Solutions Through Mending

This can in-turn lead to these demographics being pushed towards fast fashion to find affordable and quality pieces. However, this has been a topic of conversation in the past two to three years, and there is a heightened recognition around this issue. In response to alleviating some of the pressure put onto charity shops, the practice of mending has seen a bit of a surge. Mending, and visible mending in particular, is allowing people to take their existing clothing and rework and repair them to create the same unique and individualistic feeling they achieve from second-hand shopping. Mending practices can range from upcycling and reworking to patching and repairing. Rags to Riches in Glasgow is a social enterprise that aims to help provide education and workshops around upcycling with a lot of their attendees being part of Govanhill's refugee communities. Brands such as Second Cashmere and Bawn, who are both also Glasgow based, centre around providing sustainability through selling products. Bawn focuses on sustainable textiles and haberdashery while Second Cashmere breathes new life into damaged cashmere goods with visible mending techniques.

The range of sustainable and second-hand organisations and businesses available in Glasgow have allowed pockets of its communities to come together and promote eco-consciousness through clothing. The buying and donating systemic cycle in Glasgow has created a circular economy that buzzes throughout the city by way of individual and communal fashion. ■

Images:
Vintage clothes store, Glasgow; Emma Randall
Visible mending; Emma Randall

Foundational Flourishing of the Table: A Communion with the More-Than-Human

Gabby Morris

We often revel in the romanticised ideal of a community dining table - brimming with fresh produce, laughter echoing, and a connection deeply felt by all present. But if we peel back the layers of this picture, our view needs to expand beyond humans. The real foundation of the sustenance that adorns our table lies in the intricate tapestry of the soil - the more-than-human.

"You are what your food eats"[1], this profound statement draws attention to the truth that the food quality on our plates is intrinsically linked to soil health. This web of connections is crucial to understanding how the regenerative future of our food systems should be sculpted.

Regenerative and organic labels on our food are commendable and crucial. They showcase an approach to agriculture that respects the Earth. Yet, they do not encompass the entirety of the narrative. The badge of true sustainability in our food system will not be earned merely through labels but through fostering community connections. Imagine a world where local produce is not just a preference but a culture. Such a revolution is what our planet aches for - it moves us from mere consumption to genuine communion.

Following the ethos of regenerative and organic agriculture, the concept of community emerges as a potent seed capable of reshaping our food systems. Particularly in regions like Scotland, with its rich heritage and profound connection to the land, the community takes on an even more significant role. It's not merely about geographically bound groups of individuals; it's about weaving a tapestry of shared values, traditions, and aspirations that underpin a sustainable food culture.

Scotland's unique geography and climate have delivered a diverse range of produce, nourishing generations with seasonal and regional specialties.[2] Drawing upon this legacy, envision a Scotland where every town and village fervently supports its local farmers, every meal narrates a story of the land, and seasons dictate the menu. This isn't about reverting to the past but reimagining a future where eating local isn't just sustainable but profoundly enriching. Such a rejuvenation of local allegiance to food and its sources can create a Future Scottish Food culture where culinary traditions coalesce with sustainable practices, creating a legacy for generations.

In this envisioned future, food becomes the glue that binds communities together. Shared meals turn into shared stories, and collective efforts in supporting local produce engender collective pride. Such community-driven food systems will ensure that everyone has access to nutritious and fresh produce regardless of socioeconomic status. It cultivates physical health and a sense of belonging and interconnectedness.

Food stands tall as a shared endeavour at every human culture's core. Regardless of language, race, or geography, sharing food is synonymous with bonding, celebration, and commiseration. Food becomes the linchpin when we speak of systemic change, of a healthier and more regenerative future. It is sustenance and the most elemental form of social adhesive.

Agriculture's heart lies in the farm, but its soul rests in its more-than-human nature. A research visit to a farm a few years ago offered a striking contrast between organic and industrialised farming. The farmer, displaying two clods of Earth — one from an organic field and another from a previously industrial field — remarked,

"Industrial farming is simply a life support machine, where the soil is drip-fed to stay alive. Organic farming is living with soil as a living thing and nurturing it like our animals." [3]

Upon examination, the soil from the industrial field was short-rooted, compacted, and devoid of life. In contrast, the organic soil was thrice as tall, aerated, and bustling with life. The stark difference was a testament to the philosophy of each farming approach, making it clear where genuine nourishment originates. A tangible demonstration that reinforces the regenerative belief that *"agriculture is always a more-than-human endeavour"*[4].

Every grain we consume and every vegetable we savour is a culmination of an intricate dance between nature, soil, water, sunlight, and the myriad microscopic life

Image:
Two Soils, Gabby Morris

that calls the soil home. Acknowledging this complex nexus shifts our perspective from mere farming to nurturing, from exploitation to coexistence.

For me this aligns with Donati's concept of "Conviviality."[5] It is not merely the joy of shared meals but a deeply rooted societal ideal that stresses harmonious coexistence. The flourishing table is not just about the abundance of food but the joy of shared experiences. It extends the boundaries of the community to include every stakeholder, every cog in the wheel that makes the act of eating possible and, indeed, joyful.

But what if we pushed these boundaries even further? What if our conviviality, our community, wasn't just about humans? What if the soil, with its bustling life, was a part of this community? Viewing soil not just as a scientific medium for growth but as a life form in its entirety offers a tantalisingly hopeful perspective.

The more-than-human perspective expands the horizons of how we envision our food systems. It's not just about sustainable growth but recognising and respecting the symbiotic relationships that make our food possible. As Campbell suggests, imagining a world where soil is a valued stakeholder could create *"a better food world more thinkable."*[6]

In many ways, the table is a microcosm of the world. It showcases diversity, sustenance, bonds, and an intricate balance. By celebrating the more-than-human, by weaving it into the very fabric of our community ethos, we pave the way for a food system that is regenerative in the truest sense - one that heals, nurtures, and connects.

As we gather around our dining tables, let's not just be thankful for the bounty. Let's raise a toast to the more-than-human, to the soil and its teeming life, for they are the silent guests at every meal, the unsung heroes that nourish us. For in their well-being lies the key to a flourishing table and, by extension, a flourishing world. ■

[1] Montgomery, D.R. and Biklé, A. (2022). What Your Food Ate: How to Heal Our Land and Reclaim Our Health. W. W. Norton & Company.

[2] Brown, C. (2010). Broths to Bannocks. Waverley Books Limited.

[3] Quote from the author's research interview (C, Buchanan-Smith) in-person interview 2022.

[4] Donati, K "'Herding is his favourite thing in the world': convivial world-making on a multispecies farm." Journal of Rural Studies 66 (2019): 119–129.

[5] ibid

[6] Stock, P.V., Carolan, M. and Rosin, C. (2015). Food Utopias. Routledge.

Tomorrow, Today: Community-led Homes & Cooperative Living: The Future of Resilience and Sustainability

David Somervell, Cohousing Scotland Trustee

Nearly forty people participated in a Community Meal hosted by Cohousing Scotland as part of the Architecture Fringe in June 2023. We packed into Architype's Offices in the Old Assembly Room in Leith to hear presentations on "Why Community Led Homes - and especially Cooperative processes - offer so much; and How the principles and practices have worked to create resilient low impact living affordable communities". Some fascinating pointers emerged from the eight stories shared about Cohousing.

While architects like Kathryn McCamant and Charles Durrett - who popularised the concept in their 1980s book *Cohousing: A Contemporary Approach to Housing Ourselves* - spread the the Danish model for Cohousing, the basic premise is that Cohousing is an intentional community created by residents where members co-create and manage the dwellings and often share resources; and that creates neighbourly support by design and helps address the isolation many people experience today.

Five basic principles

Cohousing communities are formed on five principles:

1. Co-designed with the members of the community – who help design new buildings or renovations to old ones; shared outside space for gardens, children's' play, parties and food growing often feature

2. Private homes plus a Common House – with cooking and dining, meeting and play areas, laundry and guest rooms / and smaller homes as members can use the common facilities

3. Usually between 10 to 40 households with a design encouraging social interaction while keeping private cars to the periphery and the Common House at the centre or entrance

4. Resident control of all decision making – development and maintenance, finance, gardens etc – often using consensus decision making / active consent, with adults making the decisions and regularly contributing a few hours work / week

5. Inclusive and part of a diverse wider community, with open membership; groups often host neighbourhood activities in the shared space and Common House.

We heard how these approaches have worked in some early examples in England - where an entrepreneurial pioneer took an initiative like at Springhill (2003) - and that a new wave has been supported down south under the banner of Community Led Homes. However, the Scottish Government focus on achieving targets of 110,000 "affordable" homes by 2032 - mostly delivered by the big for-profit housing developers - means that smaller community-led approaches are counter-cultural and very challenging in Scotland.

We considered different forms of Community Led and Cooperative Housing (CLaCH) and explored how these options might be established as a middle way between social housing and housing built for profit.

... toward resilient communities

Central to each group forming to try and create a Cohousing community are several themes which all contribute to adaptable, resilient designs with low embodied energy and very low running costs. While some are specifically established as 'Seniors Cohousing', others seek an intergenerational approach. They nearly all are very keen to ensure clear boundaries combined with open shared facilities that encourage interaction between neighbours.

The big challenge facing most aspiring groups is to find a suitable site. There is so much pressure on land for housing and developers hold options on so many edge of town fields as well as gap sites. Local authorities are required to provide affordable and social housing themselves, so are reluctant to release land to a group even if there is a prospect for mixed tenure. Without access to land groups have often met for years trying to keep the vision alive only to eventually give up in face of the obstacles.

Some support required

What has worked in England is that Community Led Homes - a partnership

Images:
All: Springhill Cohousing Devlopment, Gloucestershire; Architype

between the Confederation of Co-operative Housing, Locality, the National Community Land Trust Network and UK Cohousing Network - persuaded the Treasury to allocate £300 million to Community Led Homes. Regional CLH Hubs were established with training provided for specialist advisers, feasibility study grants offered plus capital contributions to approved projects. Over five years or so from 2016, this supported dozens of initiatives - from a few homes to rent on the edge of a village to full-blown Cohousing projects. This has encouraged a whole load of voluntary action to advocate for affordable homes where "the market" was not providing them.

The Scottish Government in 2016 announced a £25 million fund for Rural and Island communities seeking to establish affordable homes for rent or for sale - where a Rural Housing Burden is placed on them ensuring they remain "affordable" in perpetuity. It still has not been all spent despite the efforts of Communities Housing Trust and South of Scotland Community Housing. This August a further £1 million was announced with support from the Nationwide Foundation and on 13 October the Remote, Rural and Islands Housing: Action Plan was published. Something to be studied carefully? But where is the support for community led initiatives in urban areas?

Cohousing Scotland advocates for plurality of housing provision to unblock the obstacles which have caused Clachan Cohousing to follow Pennington Seniors Cohousing groups - both in Glasgow - to give up despite years of patient engagement with Glasgow City Council and other authorities. Plans are afoot for a conference in 2024 to make the case for initial funding. We hope it will enable us to discuss the Action Plan along with Your Buildings Your Future - A Guide to Commissioning Sustainable Architecture for Community Organisations published by John Gilbert Architects on 31 July. ■

Image:
Springhill Cohousing Devlopment, Gloucestershire; Architype

Useful contacts and links

Two sets of quick-fire Pecha Kucha contributions explored the case for community led homes in urban context as well as rural with a convivial meal as a break between them. The session included presentations from:

- Jonathon Hines, Architype on Springhill Cohousing (2004) https://bit.ly/springhillcoho
- Sam Foster, ex Rural Housing Scotland now Arc Architects
- Lorenzo Martinico, Edinburgh Student Housing Cooperative
- Scott McAulay, Architype and Anthropocene Architecture School https://bit.ly/anthropocenearch
- Harry Whitmore, South of Scotland Community Housing
- Malcolm Fraser, Fraser Livingstone Architects [SLIDES https://bit.ly/malcolmcoho]
- Ellie Burroughs, Imagine If Collective
- Jan Woolley, CHOISS - Cohousing in Southern Scotland
- with clips from Yorspace, York, Bridport Cohousing & Threshold Cohousing, Dorset.

This event built on the work done by Cohousing Scotland over the last two years:

- CLaCH Manifesto,
- CLaCH Roundtable October 2021 and the
- Five Roadshows May/June 2022.

Many thanks to Architype Architects for co-hosting!

Cohousing Scotland - a registered charity SC038745 https://www.cohousing.scot

Email: info@cohousing.scot

Want to be kept in touch?

Join Cohousing Scotland now!

https://bit.ly/joincohousingscot

Image:
(fig 1) Prototyped; Shravya Dayaneni

If these 'jars' were 'buildings' (artefact) designed with various design philosophies

'Bio-Reflective Design Paradigms'

The artefacts intend to demonstrate, "as bio-reflection increases, there is a corresponding decrease in effort and waste, along with an increase in sustainability (for all life forms)".

'Aesthetic Micro-environment'
Mono-cultural, Generates waste and integrates no ecology = A lot of manual effort

'Biophilic Micro-environment'
Perma-cultural, has some waste and integrates some ecology = Some manual effort

'Regenerative Micro-environment'
Bio-diverse, has no waste and thrives = Naturally integrated operations and services, no effort

Buildings are our Built Habitats; they can Embody Resilience and Resourcefulness if Collectively Envisioned

Shravya Dayaneni, Designer

An Academic Research Project for the Advanced Research Centre (ARC) of the University of Glasgow under the Glasgow School of Art and in association with the Centre for Sustainable Solutions of the University of Glasgow and GALLANT, by Shravya Dayaneni. Supervisor: Simon Beeson

Context & Issue(s)

As cities grapple with socio-ecological challenges ranging from decline in people's health to planetary health, the need for sustainable, resilient communities has never been more pressing. But what if, instead of merely sustaining where we live, we aim to regenerate it? This article highlights a comprehensive project intervention, through a collaboration with 'the Advanced Research Centre (ARC)' of the University of Glasgow. It aims to address the need for us to redesign buildings as microdiverse environments that must solve all of their own needs and remain economically viable. In response, the project proposes to respond to social, economic and environmental challenges, by augmenting 'conventional retrofit project development' with a 'systemic approach' grounded firmly in 'regenerative design philosophy'. The systemic approach ought to seamlessly integrate science, technology, fiscal prudence, and biomimicry to facilitate regeneration in built environments.

Regenerative Design; A holistic 'Bio-reflective Design Paradigm'

Regenerative design is not a contemporary trend; instead, the roots of this approach can be traced back to pioneering thinkers like Bill Reed, who in his work with 'Regenesis' set the stage for a transformative approach to design that goes beyond mere sustainability to foster a flourishing coexistence between human systems and natural ecology (Reed, 2007). Conventional views often perceive regenerative design goals as impractical or utopian. This project dispels such notions by marrying financial viability, environmental efficiency, and social well-being. It aims to reintroduce the principle of interdependence into modern structures, a concept illustrated by Martin Avila (2022) in his book 'Designing for Interdependence - A Poetics of Relating'. Inspired by Bill Caplan's "Buildings Are for People - Human Ecological Design" (2016) has been invaluable in focusing attention on the human experience and in recognizing challenges as opportunities for creativity, rather than obstacles. Overall, human-ecological design emphasizes collaboration, and how people and their environment are connected. It's about creating a relationship between people, their environment, and the structures created by them, and how they all interact to create a system that works for everyone. Illustrating this design philosophy, the artefact created as part of the project is shown in Fig 1 which illustrates three variations in 'bio-reflective design paradigms'. As a result of the amount of nature-inspired design that goes into each of these, the term 'bio-reflective' is coined. It refers to the amount of maintenance for each setup and sustainability for all of its life forms.

The Participatory Approach: Why Stakeholder Involvement is Crucial?

Given the complexity of real-world challenges which face any regenerative design project, a participatory approach(Sanders and Stappers 2008; Binder et al. 2011) involving diverse stakeholders ensures that it stays grounded and effective. For a long-term commitment to 'ecological democracy' as defined by Hester, R.T. (2006) and sustainable practices, it was important to delve deep into participatory methodologies, crafting a simulator tool utilizing ARC's occupants' motivations and socio-cultural relationships of ARC's users with the building and using Hogg's 'Social-Identity Theory' (2006) as an opportunity to drive eco-responsible practices in our conventional built-environments informing qualitative analysis part of the project.

A Versatile Tool: The Eco-systematic and Bio-mimetic Simulator

Developed through design synthesis, this tool serves as a practical guide for understanding the wider ecological and social implications of built environments. It employs two decks. The first deck is a curated set of cards containing innovative ecological concepts applied to service interventions that are titled "eco-systematic innovations deck". The deck was thoroughly researched and colour-coded for different user personas, alongside another deck titled 'bio-mimetic library'. This deck comprises various ecological visual inspirations, including but

not limited to 'images of waste bins with different nomenclature, material options'. Another component of this tool consists of a canvas that allows stakeholders to curate the project while also adding notes, and listing success criteria, challenges, and evaluative measures.

The tool allows the co-creation of convergent solutions for any given scenario, and enables stakeholders to:

1. Navigate Opportunities: Investigate practical avenues for embedding ecosystem services within built frameworks and aligning human structures with ecosystems.

2. Maximize Benefits: Forge integrative solutions that cater to both human and non-human species, all the while respecting financial limitations, to establish a model of regeneration.

3. Visualize Possibilities: Employ design thinking to facilitate the visualization of ecological integration and civic innovation to drive informed choices for all stakeholders' management.

Stakeholders included university estate management, ARC building management, facilities management, funders, ARC users-occupants, and ARC visitors.

Toward a New Standard in Building Design

This project aims to lay down a blueprint for future developments in institutional architecture. Our buildings can either continue to be part of the problem or can become part of the solution. This project and tool is a first attempt, and further work will be needed to enable it to transfer to other settings beyond Scotland. The project lays the groundwork for similar endeavours across the globe. By providing an organisational tool which considers ecological, social, and economic dimensions as a unified entity, the goal is to lead the change in creating a new "regenerative" standard for our built habitats.

The future of this project will include rigorous testing of the 'Eco-systematic and Bio-mimetic Simulator' tool, refinement based on stakeholder feedback, and eventually adapting it for broader applications. With looming climate crises and depleting resources, it is a hope to offer a roadmap for finding the best solutions possible and for building resilient, nurturing, and sustainable communities for the future.

Based on stakeholder meetings with experts the project intended to set forth measurable objectives and Key Performance Indicators (KPIs) that can be evaluated in two years' time.

By providing an initial comprehensive framework for the project development teams in the form of the tool, the project can help leverage and ensure that all design decisions are both time-efficient and ecologically regenerative.

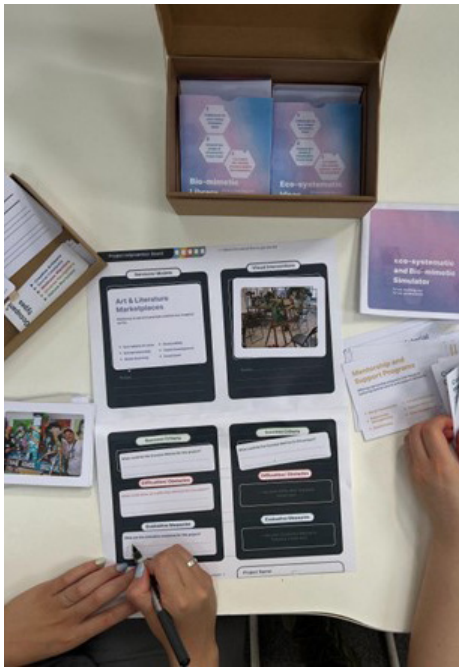
Acknowledgements

A special thanks to all the stakeholders, including *the Centre for Sustainable Solutions, the University of Glasgow, the GALLANT project, ARC Building Management and the Glasgow School of Art* for their invaluable insights, collaboration and ongoing commitment to Responsible Development, and particularly to Simon Beeson and Dr Michael Pierre Johnson for guiding the project. ■

Links:

The Project Documentation can be found here: https://bit.ly/ProjectDocument_Co-creatingRegenerativeBuildings

User Engagement Research Synthesis and Demo Tool (Digital Version) here: https://bit.ly/ResearchSynthesis_DemoTool



Seeing through Greenwashing

Bobby Jewell, Architects Climate Action Network (ACAN) Scotland

At a talk for Architecture Fringe earlier this year I broke down different types of greenwashing in architecture. Something that, even in a climate crisis, is still implemented, (mis)used and present in our industry:

At the most egregious end of the scale is the kind of greenwashing that really is telling the audience **'F*** You'**. Take The Line/NEOM project in Saudi Arabia, this ridiculous megastructure claims to be a 'revolution in urban living' taking greenwashing to unashamed new heights with shiny forest-filled renders, a huge marketing budget and exhibition at the Venice Architecture Biennale (where journalists were banned from visiting). The claims on the sleek website that the linear city will have 'no carbon emissions' and a 'reduced infrastructure footprint' are obviously totally nonsense but it's the comments by the dinosaur starchitects designing and defending it that really are insulting. With Sir Peter Cook, almost glibly, punching down at younger architects: "they're a bit scared" he says. A vacuous statement that ignores the very real climate and ethical concerns about The Line.

You are lying to yourself greenwashing

The issue this creates is that when the worst polluters in the profession are getting away with it, it makes their peers and other Directors excuse or, even justify business and usual approaches. The **'You are lying to yourself greenwashing'** done by practice Directors at international studios defending the sustainability of airport expansions, such as Grimshaw or even universally admired Grafton Architects, somewhat suspiciously, defending the sustainability of their concrete-intensive Kingston University campus after it won the RIBA Stirling Prize[5].

You are lying to me greenwashing

The greenwashing continues, with **'You are lying to me greenwashing'** where comms and PR professionals like myself can twist and mislead the public to provide a better outcome for stakeholders. Sunny looking hoardings and branding of new developments but so are branding and marketing strategies: take Landsec's recently unveiled 'Mobility Hub' in Manchester - which is actually just a car park or Glasgow's "first Net Zero office" which fails to mention that it's net zero operational only.

There's also the greenwashing of **events, and conferences,** arguably good for professional culture but not the planet. There's international star-studded and politician-filled affairs like COP or sleaze riddled MIPIM with its sustainability credentials of EDI and electric shuttle buses though no restrictions on deals signed there. Closer to home Glasgow City Council led a retrofit conference earlier this year, despite ignoring the calls from Wyndford Residents Union to retrofit their homes in the face of eviction and demolition.

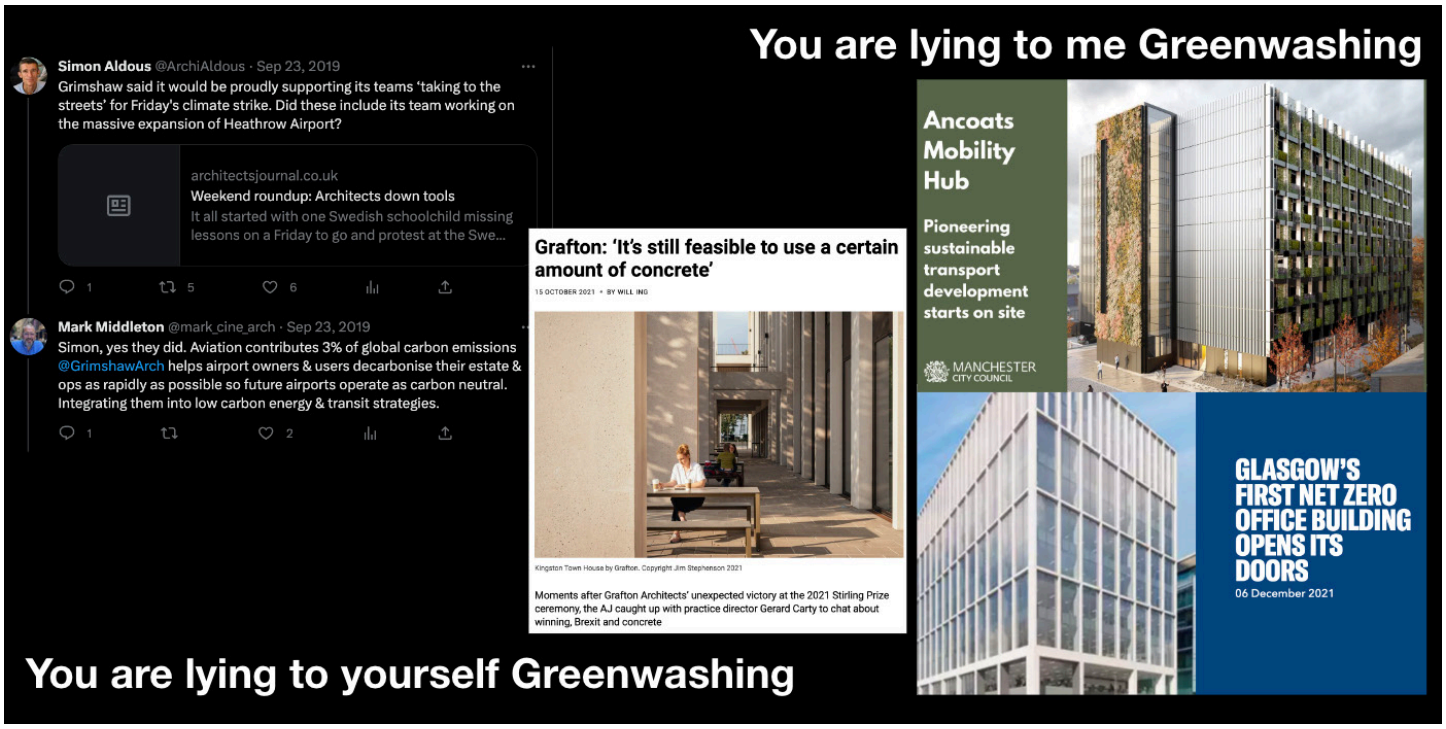
Greenwashing also creates confusion when **good ideas go wrong**. Take the Green Homes Grants rolled out by this Tory government late last year. This was done in a hapless fashion, potentially on purpose, causing more harm than good and definitely confusion for the general public on retrofit and insulation.

These issues are just some of the ways in which greenwashing permeates the built environment industry but ultimately this greenwashing is absolutely nothing compared to the damaging and astoundingly-evil lies told to us by the fossil fuel industry over the past 50 years. To quote Richard Wiles, head of Center for Climate Integrity "Climate change is not a tragedy – it's a crime that's been forced upon [people] by the oil companies, who knew their products were going to do this and went ahead and lied about it anyway". Even the term "climate change" is itself a form of greenwashing, with the term used by the Bush administration to lessen the changing global climate and its destruction.

This has a knock-on effect of an erosion of trust where good action is not supported, activists are questioned at grass roots levels but polluters are able to continue unabated and insulated from criticism.

So where does that leave us with greenwashing when the status quo (and profit margins) are so hard to let go of? Well sometimes sticks can be just as useful as carrots:

Image:
Forms of greenwashing; Bobby Jewell



Regulating Greenwashing

From trade to the national press, journalists are looking for activists, campaigners, especially from professional bodies to counter greenwashing claims. With social media aiding campaigners like Save Nour in Brixton successful targeting developers and Just Stop Oil's continued protests gaining international exposure. On the regulatory side, in a bid to clamp down on greenwashing, the Financial Conduct Authority (FCA) proposed in 2022 a package of new measures including investment product sustainability labels and restrictions on how terms like 'ESG', 'green' or 'sustainable' can be used. Though the body has only flexed it's muscles with a warning to banks about "sustainable loans" that it's openly challenging businesses is a welcome change from complete silence.

In July of 2023, the M&S store in Oxford Street, London was saved from demolition after dubious 'carbon benefits' proposed by architects Pilbrow & Partners were collectively debunked.It was a hard-won case and only could not have been achieved without months of hard campaigning and collaboration by several organisations, sharing knowledge and promoting the cause across events, social media, press and consultations. Ultimately the real success was that campaigners focused on making the case that demolition was wrong, and highlighting the greenwashing of the proposed new build.

And that collective focus is going to be needed to save more buildings and create the cultural shift needed in the architecture, design and construction - one that sees through greenwashing from bad actors at the top and works towards a better built environment for all. ■

Progressing Retrofit: Designing for Human Factors: Health, Comfort & Affordability

Sandy Halliday

Introduction

The organising committee was largely drawn from the Retrofit Group established In 2022 to assist members to link with those with shared interests.

The subtitle emerged from an enthusiasm from the members for a focus on delivering human needs rather than looking to external impacts. If we can meet our needs, might we be better equipped to consider sufficiency within the global picture? A parallel desire for a hands-on practical element initially focussed on project visits but retrofit projects of course tend to be inaccessible due to building works, or occupancy. So, when initial agreement on a modern theatre was withdrawn we enthusiastically embraced a shortlist of central Glasgow venues that might offer in-situ retrofit case study opportunity. We offered the Piping Centre SEDA's expertise and an outcome report addressing retrofit that would be compliant with the buildings' Conservation Status. They were agreeable. We had our hands-on venue.

The structure aimed to address human factors, practicalities and policy with speakers largely drawn from the contacts and knowledge of the committee and keynotes:- Bill Bordass, Paul Sweeney MSP and Roger Curtis HES providing contextual, political and cultural value.. In an age where people seem increasingly polarised and deaf to other opinion we enjoyed the experience of listening to a range of opinions with respect in A Socratic dialogue – To Make or to Mend? facilitated by the conservator Ellie Sweetnam. We welcomed the KJ Award shortlisted students following Workshop 4: Getting Your Hands Dirty in the hope that it inspired their enthusiasm for working with their hands. The final Workshop was an opportunity to address the Piping Centre and for others to bring their own projects (a good variety from repurposing of a navel base to urban tenements and rural cottages) and discuss how they might begin to retrofit them to meet affordability, comfort and health criteria. ■

Grants and Other Financing Options for Household Energy Improvements

Mike Teall, Snugg Energy

I was delighted to be invited to SEDA's Annual Conference, hosted at the suitably impressive National Piping Centre in Glasgow and focussed this year on retrofit. It's always interesting to share what we're doing at Snugg, especially with such a well-informed audience. So I was as much looking to learn from those present as I hoped they were interested in our story.

The UK's Climate Change Committee estimates that retrofitting our homes to the level required to achieve net zero will cost a staggering £250bn. This money will need to come from a combination of individual savings, government grants and, increasingly, private-sector finance.

The cost of living crisis has created a depressing reality that homeowners desperately need to improve their homes' energy efficiency but are running out of savings to do anything about it. Paybacks have improved as a result of increased energy costs, but capital costs have increased through labour shortages and the broader inflationary environment.

So grants are becoming increasingly important but are devilishly hard to understand and obtain. The recently launched Great British Insulation scheme provides funding for Scottish homes in council tax bands A-E (the vast majority of homes) and will complement the existing grants and loans available through Home Energy Scotland, as well as the ECO4 scheme (typically for people on benefits). Awareness of all this, though is terrible. In recent Snugg research, 94% of people said they were not confident in where to look for such a grant.

Banks are starting to wake up to this challenge, not least because emissions from homes in their mortgage portfolio represent a considerable proportion of their Scope 3 financed emissions. It's also an opportunity to lend more money at a time when mortgage sales volumes are generally heading in the other direction. Banks like Lloyds and Barclays offer their customers cashback for doing this, and many banks offer discounted green mortgages to those with efficient homes. The Department of Energy Security and Net Zero (DESNZ) is currently running a £24m Green Home Finance Accelerator to encourage innovation and collaboration from banks, installers and tech firms in this space. We can, therefore, expect a lot more in the near future.

Snugg was founded at the end of 2021 with the purpose of making energy-efficient homes simple and affordable for everyone. We're partnering with banks and utility firms to build a digital platform that will, we hope, achieve that.

If you'd like to try it out please use this link http://bit.ly/Snugg_Seda2023 ■

Place Based Approach to Retrofit

Alix M Davies, Place Workstream - Scottish Futures Trust

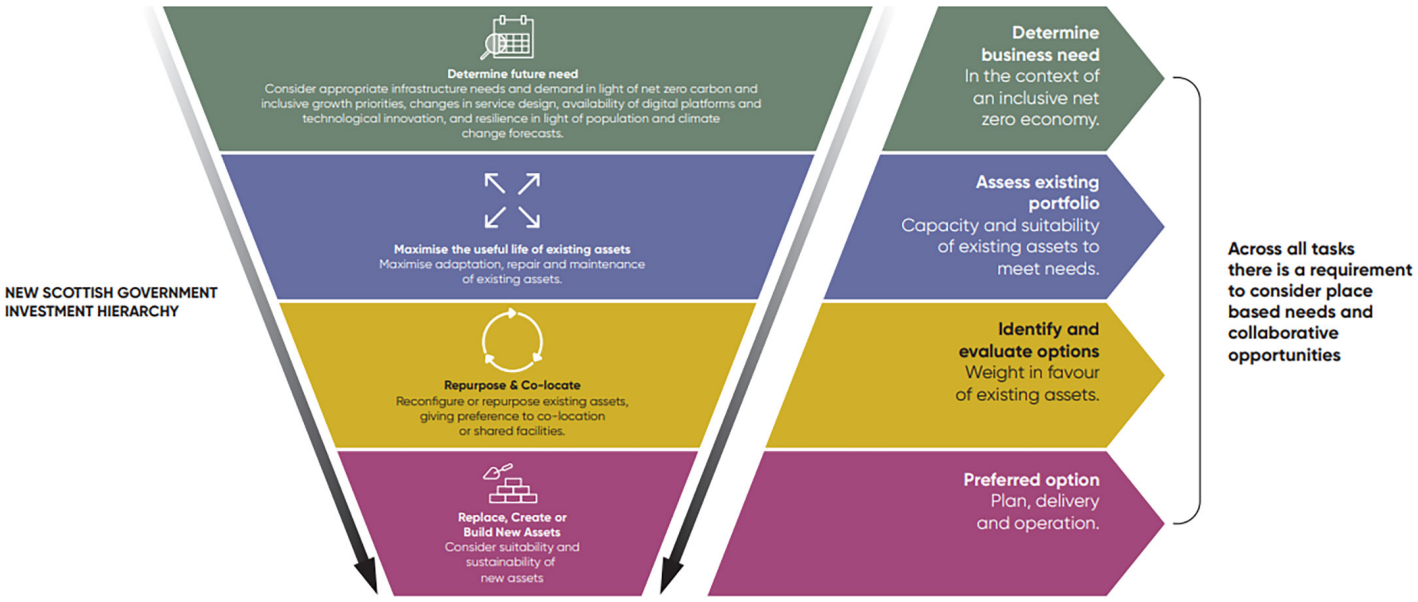
It was a great pleasure to contribute to the SEDA conference and be in such good company.

The buildings and infrastructure we choose to invest in today will shape the way we live and experience the world for decades to come. My work leading the Place element of the Net Zero Public Sector Building Standard is really about making the right decisions at the right stages with the right people - to ensure we avoid spending small emissions budget (and our money) on the wrong things, and enable us to prioritise retrofitting the right things, in the right places, that serve community needs now and in the future.

The Standard itself is made up of six interrelated objectives. Objectives 2-6 focus on carbon counting, management and product quality from construction onward. However my focus at the conference was on Objective One: the place-based requirements of the standard, which are principally concerned with decision-making pre-investment. I explained how the process we have developed at the Scottish Futures Trust helps you strategically assess your project or portfolio to establish future long-term need and suitability, considering wider social, economic and environmental factors, to ensure that all investments provide maximum impact to users and value for money.

I explored the Scottish Government's Infrastructure Investment Hierarchy as a useful tool to support decision-making on which buildings are most needed and suitable for service delivery long term - and therefore should be the focus for early transition strategies. Alongside this, I highlighted how place-based considerations are essential for a building to be net zero. However technically excellent a building is in its construction methods, if it's really far away from its end users, without good green transport options, building in long-term car dependency; if there is another existing building that is more suitable; or if the service we look to provide in that building isn't needed, the building shouldn't be the focus for initial investment and transition.

Do reach out or learn more about our work and the tools that can support better decision-making, prioritisation and outcome delivery through the Scottish Future's Trust's 'Place Guide'; 'Asset Strategy Guide' and of course the 'Net Zero Public Sector Building Standard'. ■



Re-Inventing the Wheel: Adventures in Avoiding Expanding Foam

Elliot Payne, Balbougie Steading

Image:
SEDA Conference 2023, Piping Centre; Shravya Dayaneni

The SEDA conference achieved a great breadth of conversation. The opportunity to listen to speakers from politics, policy, charity, business and design under the context of 'Progressing Retrofit' provided me with much to think about.

I think that it is in the bifurcation of the knowledge of seemingly disparate entities, for instance Energy Action Scotland and Historic Environment Scotland, that goals and how to achieve them become clearer. The curation of the speakers was very well managed in this regard. I feel SEDA champions the holistic nature of design that is key to imagining and delivering sustainable communities.

In my presentation, I was very happy to answer Scott McAulay's call for more honesty and feedback into what was working and not working in our projects by presenting the series of challenges my own project had served up for me in the past year. It was a pleasure to then discuss this with members and other conference attendees during the breaks and over lunch.

Since moving to Scotland from London last year I am very happy to note that SEDA feels a better home to discuss my concerns and contemplate solutions than I have encountered in my past 13 years of practice, I look forward to the next conference and maybe even present some more mistakes. ■

Appropriate Retrofit of Traditional and Listed Buildings

Roger Curtis, Historic Environment Scotland

The annual conference in September was a busy and well-attended event with excellent attendance and contributions. The theme for the day was set with a thought-provoking keynote from Bill, where many retrofit assumptions were questioned, and the value of the existing built environment was emphasised. Much of this chimed with my own angle on buildings and allowed me to develop a few thoughts and themes from the day.

It was reassuring to know that on a technical level SEDA members are more confident with the technical issues of retrofit and renovation. The principle I follow in thermal upgrade for traditionally constructed buildings is to aim for vapour open and capillary active materials where possible. This likewise applies in many new built options where members will have experience. Adding in factors of material choices to include those of low embodied carbon and toxicity, as well as safe and organic disposal, routes us back to a more natural and sustainable supply chain; one that the remains of existed in Scotland within living memory. Rebuilding that will be difficult in the face of large suppliers, well meant quality standards that exclude new entrants to the market, and an industry that sticks rigidly to the processes and techniques of the post war period prevent adoption, or readoption of more sustainable techniques and materials.

To my mind, in broad terms a key part of sustainability is about the retention of existing resources, and the minimisation of the extraction of new ones – keep using what you have got. As stated many times over the day, this means a presumption against demolition. While the recent NPF4 has that at a strategic level, getting it adopted at local planning level might be a challenge. The practice of building conservation scores highly as route to minimise demolition and maximise retention and re-use, as well as retained buildings contributing factors to society of craft in its creation, sense of place and cultural values. As these factors cannot be priced in the current economic model, existing buildings and settlements, historic or otherwise, always fall short in competition for survival against interests where values and motivations are more often purely financial. Most members will agree that the current economic and operational model of construction delivery is not working, and gives poor outcomes for clients, communities, contractors themselves and the environment. Even the tax regime, specifically VAT, is heavily focussed on the creation of new structures, guided it was said by a desire to maximise GDP, a metric that at its heart assumes limitless resources, space and energy; members know that in a closed system that is problematic.

A concluding theme of the day was social justice and how the necessary changes in scale, practice and funding to reduce carbon emissions are to be achieved. Most were in agreement that top-down initiatives do not work, and area, or even street-based approaches are the best way of delivering retrofit at scale. ■

Reflections: What do we do next?

Magdalena Blazusiak, co-host - SEDA Conference 2023

When asked to write a reflection of the SEDA Annual conference on Progressing Retrofit for Healthy People and Communities, I never anticipated how difficult it will be to put into words the atmosphere of unspoken solidarity, understanding, hope and humbleness of the people I met at the National Piping Centre in Glasgow.

The opening talk by Bill Bordass advocating for **sufficiency over efficiency** and working **with the people**, addressing their needs, served by the expertise of the designers, resonated with many and formed the underlying essence of the Conference. Bill's calm and confident voice of reason didn't feel like a lecture, but like a reflection we could all too often relate to.

It was a real pleasure to hear the new SEDA Chair Glo Lo talk about her own experiences and how the science of **building physics** can be used to create **comfortable, adaptable environments** for people to **thrive**.

This led onto the discussion of **placemaking** as the key aspect of creating resilient communities. Alix Medlin-Davies described Scottish Futures Trust's method of assessing the hierarchy of the investment recognising the **complexity** of the project structure and determination of the future need of the communities. One can't have a truly net zero building that is not fit for purpose in both function and location alike.

Chris Carus and Matt Clubb highlighted the good and the bad of the standards that could serve the people and **safeguard** their interest, with an emphasis of the **collective community action** supported by the retrofit networks.

Roger Curtis followed with the statement of **'not letting the perfect be the enemy of the good'**. Roger's engaging talk on conservative retrofit of historic buildings highlighted how low-tech interventions can last longer.

In anticipation of Paul Sweeney's talk we all wondered how **political** the discourse will become. Not surprisingly, Paul talked about the **common values** and the deep believe that Glasgow can deliver successful, **community focused retrofit** programmes. He concluded with a series of questions on how to scale up the retrofit action and build institutional capacity utilising local knowledge and resources.

It was joyful and entertaining to witness delightful energy of Ellie Sweetnam offering structure to the Socratic Dialogue. Taking unexpected turns from David Black's **VAT 'madness'**, Scott McAulay's pledge of reversing the **culture of un-care**, Catherine Cosgrove's point on the understanding of **complexity** and **timeline** of the interventions, Roger's and Alix's concern whether our actions help people **live well**, Richard Atkins' proactive and dynamic model promoting **adaptive reuse** and Chris Morgan's emphasis on the **reduction of waste** in support of circularity and perhaps most controversial suggestion that it is easy to make older buildings more energy efficient than new build. The lively exchange of opinions ended in a conclusion of the problem rooted in the lack of empathy, lack of understanding of the buildings and communities, that can be overcome by the promotion of interventions maximised towards public health and social value.

We laughed and learned from the skilful storytelling of the personal journeys from Andrew McQuatt, Lisa Pasquale, Elliot Payne and Jonathan Ratter, offering insight into their understanding of the retrofit process, **common sense approach** and learning through observation to determine their own level of comfort.

Effective summary of **grants** from Mike Teall, followed by striking images of **fuel poverty** in Scotland and the recognition of **unsupportive systems** described by Kate Cunningham and Scott Restrick.

The atmosphere of care and support lingered through the conversations with the student finalists of **the KJ Award**, who embraced the day and engaged in lively conversations on their projects, aspirations and hopes in the architectural education.

Seeing people from **diverse backgrounds and professions** all gathered together to support collective action towards the common goal filled me with hope. Now that we were about to go back to our daily lives we were all asking the all important question – **what do we do next?**

Reflections: Make Do and Mend

Richard Atkins, Chartered Architect

This year's SEDA Conference theme was retrofit, with a great line up of speakers focusing on; the conservation of buildings, net zero CO2(e) emissions, the cost of energy, the circular economy, social impacts, and the generation of construction & demolition waste.

Bill Bordass opened by speaking about 'sufficiency'. A notion that has been lost as nations industrialised. As Bill reminded us, it is perhaps best explained by Jevon's Paradox. Which, put simply is that the benefit of improving the efficient use of a resource, while it reduces its demand per application, is outweighed by its newfound affordability. As a result, overall demand increases.

Naturally, this got me thinking.

What do we mean by retrofit? What is it we are aiming to sustain? What are the consequences of retrofit versus the alternatives?

The primary driver for an intervention in the built environment might be to address CO2(e) emissions (the current touch paper for the environment), and social, or financial concerns. Every intervention in the built environment requires inputs; money, labour, and materials, as well as creating waste. The balance between these depends very much on just what that intervention is.

I think there is a need for us to be more rigorous in how we class, in environmental terms, those interventions and I suggest the following categories: demolition, maintenance, retrofit (verb - add a component or accessory, to something that did not have it when manufactured), refurbishment, alterations, extensions, conversions, replacement, or new build.

As a simple thought experiment, I invite you to think of a positive and a negative example of each. Now think of the inputs, specifically the environmental impact of new materials and waste arisings. For example: the benign impact of sheep's wool or hemp insulation, versus the landfilling of laminated chipboard kitchen units. Or the embodied CO2(e) emissions of concrete, versus the reuse of parquet flooring.

I hope this illustrates for you, as it did for me, the nuance and complexity of being part of an industry, which sees itself, by definition, as 'building' (verb – the action or trade of constructing something).

And here is the dichotomy. There are few opportunities to retrofit, which do not stray into 'stripping out' (a subset of demolition) or refurbishment (which necessitates stripping out). The environmental positive of retrofit is the improved performance, of useful, socially, and financially valued buildings. But like any intervention, the negative is the environmental footprint of the new components and materials together with the limitations on the usefulness of any waste arisings. It is not the footprint left by what already exists and may be lost.

Wherever possible, retrofit must build on making do and mending. ■

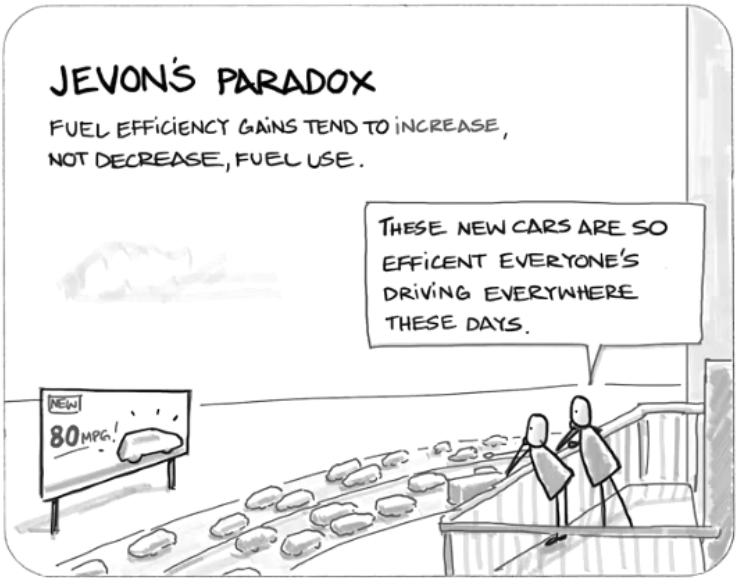


Image:
Previous; Jevon's Paradox; Sketchplanations

Krystyna Johnson Award '23

Jim Johnson, Krystyna Johnson Trust

Once again we had an excellent short list of entries for the annual Krystyna Johnson awards, and the students, one selected from each of the 5 Schools of architecture in Scotland, presented their projects at the recent SEDA conference 'Progressing Retrofit'. The projects comprised two libraries, a social housing scheme, an RSPB wetland centre and an artists' living/working complex in in the centre of Paris.

While all demonstrated an understanding of sustainable construction, there was a range of additional explorations: a France wide survey of materials to be used to construct the artists' complex to reduce the contribution of transport costs to the embodied energy, a search for new natural materials such as seaweed, some new terminology such as "Komboredi", meaning the calming effect of sunlight filtered through foliage, and the Gaelic word "naidair" which translates as nature but without any distinction between natural and human environments. It is good to see students exploring such wider issues – we need to develop new approaches given the environmental crisis we are in.

One disappointment was that none of the projects involved work to existing buildings, although one scheme did partly incorporate a contiguous existing structure but without any study of its fabric or how it could be reused. An opportunity missed. Whilst understanding that the Krystyna Johnson award has to fit within the schools' second-year syllabuses, surely it's time to move towards conversion, rehab and retrofit given our concern with embodied energy. In 1979 the architect Terry Farrell questioned whether we really need any more new buildings, and demonstrated his beliefs in developments like his 1980s renovation and repurposing of a whole city block near Covent Garden. Some 35 years ago I advised Oxford Brookes University to set up a course on building conversion and repair; has that happened in other schools of architecture? Correct me if I'm wrong, but I fear that few schools have followed that example. Hence my despair at the slow pace of the professional and governmental response to our collapsing environment.

This is the first time we have been able to video the students' presentations. Do please look at them at, https://youtu.be/jvap7Knhofg.

The video will be used to explain the KJ Award to the schools and the next cohort of students. We hope it will be an inspiration to both staff and students. It was also very pleasing to see this year's students' positive response to attending the conference – the award winner, Rona Bisset, welcomed the chance to learn more about SEDA, so perhaps we should start a student membership class to draw on their enthusiasm and energy. Another nice touch was that last year's winner, Jonathan Lynn, introduced the students and chaired their session.

All in all, another very successful Krystyna Johnson Award event, with the added bonus that it is recorded for posterity on a video which can be used to encourage future entrants. Many thanks to all concerned in the organisation of the event. ■

Image:
Collective.24 Render; Winner - Rona Bisset

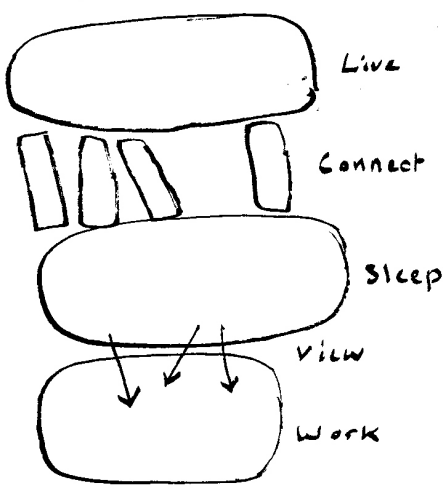
Reviving and Nurturing: Strategies for Sustaining an Artist Community – Collective.24

Rona Bisset, ESALA [KJA '23 Winner]

Collective 24 in Belleville, Northeast Paris, won the Krystyna Johnson Award for remarkable contribution to the revitalisation of a declining artist community focusing on social and community values. The historical background of the site played a crucial role; it helped understand the communities impacted by gentrification. This resulted in artists taking up residence in abandoned factories that were repurposed into art squats. Consequently, these conditions led to numerous protests within Paris as they were characterised as unsafe, isolating, and unsustainable for living conditions. Belleville, in particular, suffered a loss of its artistic identity as a consequence of these changes. Recognising this context, efforts were concentrated on providing improved-quality, affordable, energy-efficient housing and nurturing a sustainable social environment for both temporary and permanent artistic residents.

The initial concept for this project was centred around creating a flexible social connection space for a community. The case study of Oderberger Str.56 (BAR Architekten, Berlin, 2008) helped inform the design principles for the project. The project emphasised adaptable social sustainability through flexible spaces that could evolve to meet the changing needs of residents. The use of Cross-Laminated Timber (CLT) facilitated flexibility, removing the complexity of moving homes, in turn creating a longer life span for the building and its residents. The building itself promoted social sustainability through internal urbanism and offering essential resources for living and socialising. This approach influenced the development of Collective.24's schedule of areas, keeping the work, living and sleeping spaces separate, with the idea of co-living. While the proposal promotes internal urbanism, it also considers external social factors beyond the immediate site. The deliberate design choice of limiting natural light within the co-living apartments during the evening hours encourages residents to explore and connect with the community within a 15-minute city perimeter. The concept of the 15-minute city, a Parisian initiative aimed at reducing carbon emissions, played a crucial role in shaping this project. The urban development concept addresses climate change issues and helps support physical well-being and the local economy and tackle the concerns of loneliness and isolation.

These strategies curated the design process, culminating in Collective.24's proposal, which offers a space to observe, create and connect with like-minded individuals. The studio space is inclusive, serving the whole art community, providing an array of mediums and workshops, reviving interaction with the residents of Belleville and serving as a vibrant hub for the Artist collective "Ateliers d'Artistes de Belleville". In pursuit of a socially sustainable, responsible design, binding passive strategies alongside the thermal mass properties of CLT; effectively reduces energy costs of heating and ventilation. Strategically placed offsets were added to the window design to invite natural light while mitigating excessive heat during the summer months. Conversely, during Winter, the design optimises the entry of heat and sunlight. However, when the CLT requires heat dissipation, the innovative window design enables effective cross-ventilation through the space to vents, ensuring a sustainable, comfortable micro-environment. These strategies crafted a proposal for a sustainable, energy-efficient space for creativity to grow, therefore reviving and nurturing the artist community in the heart of Belleville, Paris. ■



Parti diagram; Rona Bisset

Within the Earth: A Material Investigation of the Bo'ness Library

Ailsa Hutton, Glasgow School of Art [KJA '23 Finalist]

When I started studying architecture, I had no idea what motivated or excited me. For many of our projects, tutors at the University encouraged us to start thinking about materials and their carbon footprints, which is where my interest in sustainable design began. From then on, my project focus was led by sustainability and researching different aspects of environmental design. Therefore, when I was introduced to the Krystyna Johnson Award, I saw it as a good opportunity to develop my awareness and knowledge on sustainable design.

I thoroughly enjoyed working on my project of the Bo'ness Library and this was partly because I was given the opportunity to have creative freedom and focus on the ecological aspects of the building's adaptation. I have always been interested in humanity's impact on the environment and furthermore what I can do to reduce negative impacts. I gained so much from this experience, especially at the SEDA conference, because it was great to be surrounded by like-minded people, sharing thoughts and research, and most importantly discussing architectural sustainability with passion and intention. The conference really opened my mind, and I am able to start viewing sustainable design as a realistic path for my architecture career because it allowed me to see the amount of people dedicated to this cause and overall gave me a lot of hope. From my experience, these conferences are really important, especially for young people, as I think we are surrounded by hopeless expectations towards our futures and careers due to the looming climate crisis, whereas these conferences help promote hope and education to create a brighter future.

Overall, the experience has shown me how important it is to continuously praise and support individual's design research, giving people a platform to share education and first-hand experiences. Personally, I gained a lot of confidence being a part of this experience and I hope to continue to grow and develop my love for sustainable design. It meant so much to me to be recognised in this field of architecture and I feel as though I have already learnt so much from SEDA.

Performance space; Ailsa Hutton

G2G Social Housing - (from) Granite to Green

Marco Antonio Paz Garcia, Robert Gordon University [KJA '23 Finalist]

Being a finalist for the Krystyna Johnson Award at the 2023 SEDA Conference meant a lot. Having the chance to compete against the best Universities in Scotland and representing Robert Gordon University was a privilege.

It was amazing to see other students' ideas, design strategies and approaches to sustainable and ecological architecture. It truly shows that Scottish Architecture schools are going through major changes in how to inculcate sustainable design into the early learning stages that we, as students, undergo. Allowing us to be involved in these sorts of activities enables our capacity to design better and more following the problems of today's environment and society.

I think it is imperative to point out that 'sustainable design' is no longer enough. We must accept that a lot of the climate issues of today could be easily attributed to poor architectural design decisions in the past. We need to be restorative, even regenerative, so we can give back to nature and collectively make a positive impact on the fragile environment.

There is a big challenge in how to change the regulatory system. It takes too long for regenerative materials to be approved and tested in actual buildings. We end up using 30 or even 100 years-old materials. It is a complicated path, but we should all aim to make small changes, especially to enlighten those sceptical about the performance of new green solutions.

The Conference offered great insight into different departments involved in the construction industry, from the Council to small particulars trying to make a change. Data and proof from field professionals with tons of experience showed the difficulty of dealing with constraints but that a change is certainly possible. It also offered to be part of the change we want to see in the industry.

I also would like to commend other participating finalists, and hopefully, we can serve as an example for other 2nd years to be motivated to give their best and participate in future KJA Competitions. Not forgetting that just by participating you will become a member of the Scottish Ecological Design Association for a year, and get to network and learn from specialists and renowned architects. ■

Project Marco A Paz; Joe Inman


Aerial - Project Marco A Paz; Joe Inman


Eye level view; Marco Paz

A Climate for Change in Scottish Construction

Tom Morton

In the 22 months since COP26, all hope of limiting global temperature increase to 1.5 degrees has disappeared, and frustration at the pace of progress has grown.

Later this year, the Scottish Government is due to publish its Just Transition Plan for Buildings and Construction, alongside ones for Agriculture & Land and Transport. SEDA has been engaging with the government since COP26, latterly through the Scottish Government's Climate Policy Exchange Network, which many participants have found to be a rather underwhelming experience.

Clearly, Scotland's plan to get this sector to net zero is a hugely important piece for work. Over the next 22 years, 40% of our carbon emission reductions need to come from this sector, 332,250 jobs need to be upskilled, and an annual investment of £17 billion needs to be re-targeted.

The Just part of the Transition is key here. Net Zero climate targets can only be successfully delivered if the construction system undergoes a fundamental change, whereby it also delivers gender equality, ends fuel poverty, empowers shared agency, and eradicates physical and mental health inequalities among construction workers and building occupants.

That is, only by combining technical change and culture change can we successfully address climate change. And we all know that heads are harder to change than buildings.

It is important to recognise that the reason our construction sector lags behind the delivery of decarbonisation by other sectors, such as Energy and Transport, is because it is more complex, has greater bureaucratic and commercial inertia to overcome, and holds less political will and civic agency.

SEDA recently submitted a 13-page commentary on the Scottish Government's Discussion Paper, addressing many issues that will be key to achieving an effective and efficient change process. Here's are a few highlights:

- It would be counterproductive and wasteful to rush into a mass retrofit programme fitting high embodied carbon and unhealthy materials in poor quality inequitable processes. An integrated sequenced process of materials transition, skills training and quality control needs to be planned on an accelerating timescale to achieve the 2045 target.

- We have to include all construction - so non-domestic buildings, infrastructure, landscape, and maintenance, as well as carbon emissions and other environmental impacts incurred overseas.

- Government procurement is a key route to signalling and triggering a change in the commercial sector, one that requires a clear and strong procurement focus. Similarly, to build our future workforce, achieving gender equality should start immediately with 50% requirements for current cohorts of funded apprentices.

- We must develop a clear projection of climate impacts, especially on coastal communities and a financial and spatial plan for relocating of people and businesses.

This is not just a technical change process in buildings and materials, it is a culture change. We need to look in the mirror and accept that ours is the Destruction industry, one that is systematically destroying our future. If it is to transform into a positive force for our thriving future, then we need to build fewer buildings better and share agency across all stakeholders.

That shared agency needs to start with the process of change itself. For the process to be efficient and effective (not to mention Just), it needs to be developed through a co-creative process involving people from all across the sector coming together to discuss the challenges and share their experience of shared solutions, facing hard decisions in a way that enables political and financial action with broad sector endorsement.

Over the coming months, SEDA will be working with other sector stakeholders towards such a strategy. ■

You can read the Scottish Government's Discussion Paper at https://www.gov.scot/publications/transition-built-environment-construction-sector-discussion-paper/

Kerr Macgregor Award for Solar Innovation: Sponsors' Statements

Colin Porteous

Introductory statement by Gloria Lo Chair of SEDA and past Chair of SEDA Solar

We are excited to see the relaunch of this award that commemorates Kerr, a marvellous man full of ideas. Kerr was vital in educating and championing the use of solar in northern latitudes; it is important to continue that legacy, for this clean, free and abundant source of energy to be harnessed in the face of climate emergency.

Colin Porteous, Emeritus Professor of Architectural Science, The Glasgow School of Art

As an architect (since 1966), my interest in energy-efficient design moved from practice to in-depth research as a mature student in 1981; the following year joining the Scottish Solar Energy Group (SSEG) and becoming active in the wider international solar community. A mechanical engineer at Napier in Edinburgh, Kerr MacGregor, had founded SSEG circa 1980 and wowed delegates at the 1981 International Solar Energy Congress in Brighton by showing that "North is best" (i.e. northern latitudes) for solar displacement of space heating; by 1984 he launched the first of a long-running biennial series of 'North Sun' international conferences, leading also to a parallel series of Eurosun conferences, after 1998.

I came to know Kerr well as a friend and colleague over the years, both in terms of organising numerous events and in securing cooperation between our respective institutions – Napier University for Kerr, Mackintosh School of Architecture in my case. For example, the 1987 'Heatfest' community-led ideas competition to solar-retrofit homes suffering from acute fuel poverty led to a partly European-funded 'Solar Demonstration Project', with bespoke solar air collectors designed by Kerr complementing passive solar features. This led in turn to the founding of the Mackintosh Environmental Architecture Research Unit (MEARU) in late 1993, a year after the notable Rio Earth Summit. By 2005 I had authored a book with Kerr, 'Solar Architecture in Cool Climates', which relied heavily on SSEG activities for source material. Six years later, Kerr's sudden death came as a blow to all who knew him in the solar firmament.

Paradoxically, as active SSEG membership dwindled in the ensuing years while solar commerce accelerated, SEDA has offered a strategic new home as SEDA Solar for a tangible continuation of what Kerr began. I had helped to organise the first memorial award for Kerr (specifically emphasising solar innovation) within the Scottish Renewables annual awards in 2013, followed by several for students at annual solar conferences in Edinburgh – hence the desire by SEDA Solar to continue this tribute, and hence the reason for my personal sponsorship.

Images:
Overleaf, left; John, Colin & Kerr; Colin Porteous
Overleaf, right; George meets the Queen; Colin Porteous
Left; Grand Designs House of the Year; AES Solar
Right; House at the end of the rainbow...; EBS

George Goudsmit, Managing Director, AES Solar Ltd

AES Solar are an award-winning solar specialist company based in the northeast of Scotland. Established in 1979, we are the oldest manufacturer of flat-plate solar thermal collectors in Western Europe. We have since become the leading solar experts in Scotland and further afield. In 2019, we were awarded one of the top business awards in the country, The Queen's Awards for Enterprise (now known as The King's Awards for Enterprise), recognising our efforts and commitment to sustainable development.

AES Solar have an excellent long-standing reputation in the solar thermal market and still manufactures our solar thermal collector, the AES Luminary, at our head office in Forres to this date. We have adapted to the changes in the market, including predicting the popularity of solar photovoltaics (PV). We now have extensive experience in the design, supply, and installation of solar PV and battery storage systems. Our customers range from small-scale domestic to commercial clients throughout the UK. Examples of our notable projects to date include a landmark solar PV installed on Edinburgh Castle, a solar thermal system for Balmoral Royal Estate, and the installation of an off-grid system on the property that went on to win Channel 4 Grand Designs: House of the Year.

AES Solar is sponsoring the competition due to the significant relationship between Kerr MacGregor and AES Solar Managing Director George Goudsmit. Kerr was George's second introduction to the world of renewables - the first being AES Solar founder Lyle Schnadt, who Kerr assisted in creating the now-renowned AES Solar thermal panel. Kerr regularly enjoyed trips to the AES Solar office, where his enthusiasm for solar thermal resulted in test projects on the roof. His other solar achievements include instigating the formation of the Scottish Solar Energy Group (SSEG) and the solar demonstration vehicle SOLAR ONE. He would welcome any opportunity to drive to schools and other interested groups to demonstrate the van, filled with solar gadgetry, including his most popular gadget, a kettle, where many a cup of tea was drunk!

Kerr was an inventor, a great storyteller, always on the lookout for something new, and always available to help and to teach, and we are delighted to sponsor this award in his honour.

Bethany Bolton, Ecology Building Society

Ecology Building Society exists to tackle climate change through our impact-led lending. Ecology Building Society is widely recognised as a sustainable finance pioneer, lending to businesses and community groups for sustainability as well as our established position as a leading 'green mortgage' provider.

Ecology Building Society is proud to support the Kerr Macgregor Award for Solar Innovation as we want to celebrate and support the innovators and forerunners who lay the foundations for the future. We anticipate that entrants for this award will share our vision and values, as they both impress and inspire us.

Images:
Left; Boiler room for retail centre; Luths Services
Right; Lochgelly High School - roofing; Forster Group

Dan Gates, Principal Engineer, Lùths Services

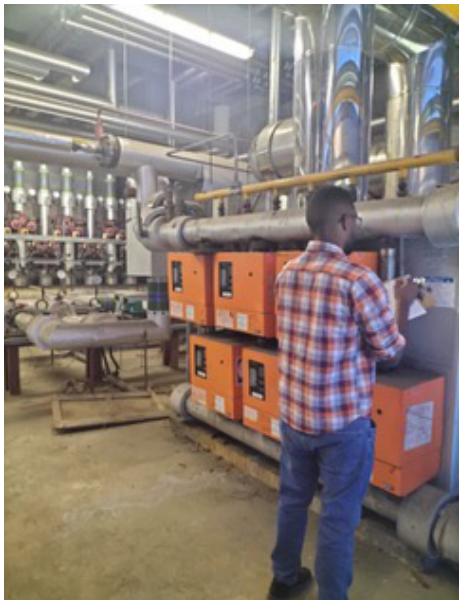
Lùths are delighted to sponsor The Kerr MacGregor Innovation Award. We first met Kerr nearly 20 years ago, and his enthusiasm for both innovation and the passion which made the case for solar energy still inspires us to do the work we do today to move Scotland and beyond toward a more sustainable future. Solar energy is abundant, clean and low cost and the innovators of today are pushing the boundaries of technology to make sure we all benefit from this form of energy, and we commend all your work.

John Forster, Chair of Forster Group

With solar set to influence our energy transition in Scotland more than ever before, the Kerr McGregor Award for Solar Innovation returns to the fore, and Forster are delighted to recognise the energy and passion that drives our solar innovators.

Forster Group is an award-winning, innovative business offering a unique approach to the advanced integration of solar and roofing, which supports the wider net-zero goals and drives down energy costs for consumers. The Forster Group was a key partner in the flagship UKRI-funded Advanced Industrialised Methods for the Construction of Homes (AIMCH) project.

John Forster is Chair of the Forster Group he founded over 30 years ago. John was the Founding Chair of Solar Energy Scotland, he championed Scottish Foundation Apprenticeships and helped found the Construction Scotland Innovation Centre, now BE-ST, chairing its Governance Board from 2018-2021.



Images:
Left; Glenalmond Street; John Gilbert Architects
Right; East Whins Housing; John Gilbert Architects

John Gilbert ARCHITECTS

Matt Bridgestock, Managing Director, John Gilbert Architects

John Gilbert Architects have a long association with the Kerr MacGregor Award, the Solar movement in Scotland and SEDA, we are delighted to support this award. Kerr was a well-known face to the office and, with John, we took that influence and tried to bring innovation and ideas into our projects – e.g. 1 - Glenalmond Street – solar social housing completed in 1999; 2 - Findhorn Solar – solar housing completed in 2013; 3 – Bankhall Street, Urban solar design; 4 – Fenella Street, Urban solar social housing completed 2020.

Matt is managing director of John Gilbert Architects, an innovative and award-winning company based in Glasgow. Matt has substantial experience in the delivery of sustainable buildings, he and his team have worked on a number of small and larger scale co-housing and community-led housing schemes. Matt has led the practice for more than 12 years and has developed a number of ambitious partnerships to deliver low carbon sustainable places, including Passivhoos, Hab-Lab and Sussed Sustainability. Matt is a Passivhaus designer and certifier of design (Section 6), He is on the Passivhaus Trust Technical Panel and is vice Chair of the PHT Scotland regional group. He is a former chair of the Scottish Ecological Design Association and holds advanced accreditation by the RIAS for Sustainable Design.

Concluding Comment

The SEDA Solar organisational team for the Kerr MacGregor Award for Solar Innovation hope that the above statements by the six sponsors may help to inspire a number of SEDA's members and other practitioners, researchers or students active in this field; they may read the SEDA Magazine or be otherwise aware of the Award through their practice, institution, press releases and so forth, enough to think of entering – 'nothing ventured, nothing gained', possibly embodying Kerr's spirit of lateral thinking with economy of means and ends!

For more information please visit SEDA Solar Kerr MacGregor Award.

For enquiry please contact solar@seda.uk.net

A Farming Revolution

Gail Halvorsen

When I was walking down the burn that crosses Bamff Estate in north-east Perthshire in the pouring rain looking for beavers, dressed like Christopher Robin with a gigantic umbrella and Wellington boots, I had no idea that my host would spark one of the most impassioned contributions to the SEDA Land event at GO Falkland the following day.

The company hosted at Bamff House that evening was as international as the beavers that were reintroduced from Norway, Poland and Bavaria. There was a French film crew sheltering under the dripping trees and a Transylvanian songwriter. However, we never saw the beavers because they, unlike us, have more sense than to come out in the rain.

GO Falkland was the first ever outreach event of Groundswell – the regenerative farming conference that's been held annually at Lannock Manor Farm in Hertfordshire since 2016. Groundswell is a place for anyone interested in food production or the environment to learn about the theory and practical applications of Conservation Agriculture or regenerative systems, including no-till, cover crops and re-introducing livestock into the arable rotation, with a view to improving soil health. It started with a few hundred attendees and has grown into the largest regenerative farming gathering in the UK, attracting over 7,000 this year.

Although Falkland did not reach those numbers, there was a real buzz at the event. A wide variety of people interested in the land and food production enjoyed a full day of talks, exhibits, food and culture in glorious sunshine.

"I don't think I've ever seen so many smiling farmers," said Ninian Stuart, organiser of GO Falkland and steward of Falkland estate – the beautiful and bucolic setting for the event on the 1st of July.

SEDA Land ran one of the events in the main tent – "Bio-Caledonia" – a conversation about the Scottish Government's ambitious new strategy to halt biodiversity loss by 2030 and reverse it by 2045, goals that will require transformational change. As agriculture uses 70 per cent and forestry 20 per cent of land in Scotland, farmers, foresters and land managers will need to fully integrate new biodiversity management into their existing approaches. The science is clear – all farming systems must become regenerative.

Davy McCracken, professor of agricultural ecology at the SRUC, who sits on the Scottish Government's Scottish Biodiversity Advisory Group, set out the context of the biodiversity crisis and, along with a panel of farmers, foresters and a landscape planner (see poster for full list) covered how the new targets can be met on the ground, both from biodiversity perspective and to help land managers make appropriate changes.

The debate afterwards was dominated by two themes – 'share versus spare' and how to bring sceptical farmers on board.

Johnnie Balfour, owner of the neighbouring Balbirnie Home Farms, suggested landowners who are already farming regeneratively should open their doors and show people firsthand how it is done. He also said we need to dispel the myth that intensive farming is more profitable. After the initial two to three-year conversion period, regenerative farming produces healthier soils which in turn produce higher-yielding crops and higher incomes.

I was surprised at the emotions generated by the "share versus spare" argument – a hotly debated subject amongst landowners at present. It was Sophie Ramsay, my host at Bamff, and poet, who gave a powerful and emotional plea for more integrated land management and the realisation that landowners need an income.

"Land sharing" is land management which attempts to meet both agricultural and conservation needs within the same area. This includes reducing pesticide and fertiliser use and retaining habitat features such as trees, hedges and ponds. "Land sparing", on the other hand, involves measures to sustainably increase yields on some areas of agricultural land, allowing other areas of land to be set aside and protected for nature conservation such as SSSIs.

When Moteh Parrot sang "A Song To Insects" about the declining number of insects hitting our car windscreens, one senior researcher in the audience was reduced to tears.

SEDA Land also had a stall in the exhibitors' tent at GO Falkland, and there was a stream of inquisitive people passing, showing an interest in the only stand not directly related to farming. Ably manned by Geoff Squire, formerly of the James Hutton Institute, and architect and SEDA member Elliot Payne. Our new banners were marooned in a depot in Southampton, but my Blue Peter-style boards made out of cornflake packets and Sellotape did the job.

Increasingly, Scotland's farmers and land managers are turning away from the post-war, intensive farming consensus, which has had, and indeed continues to have, such disastrous consequences for soil health, groundwater purity and biodiversity across rural Scotland. Events like the original Groundswell in Hertfordshire, and Groundswell Outreach in Fife, are already playing a critical part in this movement. There is no question that, from the evidence at Falkland, there is a groundswell movement to change things.

Images:
GO Falkland 2023; Gail Halvorsen

Rural Housing: Lack of is Crippling Businesses

Gail Halvorsen

The train pulled into the small station of Dunkeld alongside an abandoned station building. I arrived in rural Perthshire for the Rural Housing Scotland Conference 2023.

The walk to the Dunkeld House Hotel was longer than I expected – 2 miles – but well worth it. First over the elegant Thomas Telford Bridge where toll riots took place against the toll charged by the 4th Duke of Atholl to recoup the costs of construction. Then along Bishop's Walk beside the river Tay, planted by the 4th or 'Planter Duke' in the 19th century in the grounds of Dunkeld House.

The informal chat before the dinner was possibly the highlight of the event, as is so often the case, especially since I had only met most of the people remotely before, from the shoulders up. I was surprised how difficult it was to recognise someone when faced with their whole body.

The next morning, I recrossed Dunkeld Bridge, which had been carrying traffic since it opened in 1809. to the Birnam Arts and Conference Centre. I remember this well from the SEDA visit in about 2005 when a SEDA member, Robin Baker, of Robin Baker Architects, who converted and extended the original Victorian building, showed us around. It still looks wonderful and is obviously a very popular community venue.

The day started with an Irish double-act from Jake Ryan of the Irish Government and Stephen Carolan of the Western Development Commission. They described the broadband hub network which was recently rolled out across rural Ireland. The project was impressive, with over 300 hubs located in anything from shared community rooms to large enterprises, supporting remote workers and acting as incubators for startups. The network has revitalised many rural areas including remote islands and was the envy of everyone in the room. The project has naturally had generous financial support from the EU.

This was followed by an overview of Highlands and Islands employment opportunities, economic prosperity and housing availability from Morven Fancey, from Highlands and Islands Enterprise. Many businesses including salmon fishing, wind farms, the Sutherland spaceport and the Cromarty Firth Freeport are setting up or expanding in this area with no shortage of jobs but, due to a lack of housing, finding it difficult to attract the necessary workforce.

Cabinet Secretary for Housing, Shona Robison, made a brief appearance before dashing to an STV interview. It was good of her to attend the conference, but many felt that her time might have been better spent answering questions rather than giving us a party political speech.

There were two breakout workshops during the day. In each case I selected the least architectural – both were about energy. Power Circle is a social enterprise that helps social housing providers and social enterprises choose and manage the most appropriate smart, low-carbon energy system and helps steer them through a myriad of obstacles. As Power Circle's project development manager Kenneth Easson said, they are energy type agnostic which, given the changing views on energy sources and different needs of different buildings, is probably very sensible. My second workshop was given by Gillian Campbell from the Existing Homes Alliance. Gillian described ways in which the Scottish Government might help rural communities move to zero-emissions heating. In her case, it was a fabric-first proposal.

The lesson from these workshops was that we need more time to do things properly. At present, the Scottish Government seems to have a knee-jerk reaction to addressing climate change ricocheting from one topic to another. Little time seems to be devoted to the overall effect of how these policies interrelate. We were told that builders will need to be trained quickly to implement the retrofits needed.

However, I highlighted my experience of being called to a rural house west of Edinburgh that had been retrofitted with a grant from the energy company obligation (ECO3) scheme. But the approved builders had done a "cowboy" job using an impermeable membrane inside a Georgian stone cottage. I was appalled, especially given that the client was trying to do the right thing. Everything had to be ripped out again. It is examples like this that demonstrate that

Images:
Left: USCA Community Housing; Johnny Barrington
Right: Rural Housing Scotland Conference 2023; Gail Halvorsen

these things should not be rushed. There is the potential for large-scale job creation throughout Scotland but the tradespeople must be trained properly and, if necessary, experts consulted who understand the complexities of thermodynamics involved in the retrofitting of existing buildings.

The other common theme was that one size does not fit all, not only in relation to retrofitting homes but also in the creation of new homes. Each case has to be looked at individually. Mass housing is not the answer to sustainable rural communities.

However, where the two workshops differed was that Power Circle advocated installing a renewable heat system first, whereas the Existing Homes Alliance advocated fabric (insulation, double-glazing and draft-proofing) first. I have always supported fabric first approach but Kevin has a point – it would be prohibitively expensive to retrofit every home to the standard we would like. The cost of retrofitting all social housing in the UK to zero carbon standards is currently on track to hit £104 billion, according to Inside Housing. Given that the social housing sector is approximately 23% of total housing, we will need at least £450bn – nearly three times the gross domestic product of Scotland (£162bn in 2020). Is this realistic? One delegate said there is a magic money pool when needed (think the banking bailouts of 2007-9 and the furlough and other support schemes of 2020-22) and we should be pushing the government to find one.

This conundrum – installing renewable energy, or retrofitting first – is just the sort of debate I do not hear coming from either the UK or Scottish Governments. Discussions like this need to be had at the government level with proper research and consideration of all factors – existing labour force, the training required, loads on the electricity grid, etc. The Rural Housing Scotland conference provided a relaxed and stimulating forum to debate these sorts of issues.

I can't end without talking about lunch at the Birnam Centre – a wonderful spread, with copious numbers of salads and homemade bakes, all of which were irresistible. The plates were piled high – more time for that face-to-face chatting we have so missed. Thanks to Rural Housing Scotland for a very stimulating day. ■

Thoughts from the Chair...

Catherine Cosgrove, SEDA Chairperson

This is my last column as SEDA Chair and, looking back over the last three years, this has been quite a challenging time. Who could have predicted that a global lockdown would happen? But maybe we needed a global disrupter that large to highlight how frantic our lives have become. With so many people now working from home, even for part of their week, all sorts of ingrained "business as usual" habits have changed. So there is less commuting, less business travel, less overcrowded workspaces, less need for car parking. All these have a positive environmental impact. At the same time, we have more appreciation of the spaces around us and of how close nature is to us, which maybe we hadn't noticed when we were busy rushing from A to B.

In terms of SEDA, a lot of this is what we've been campaigning for since we were founded over thirty years ago. The difference now is that people have experienced what the benefit is to them by slowing down and becoming more in tune with the natural world, rather than fearing what they might have to give up. But the bigger picture is that far more change is coming our way as a result of global warming. How this will impact our day to day lives is hard to tell but SEDA will be at the forefront of sharing how our experience of doing things differently can help mitigate these impacts and be more attuned to our environment.

More recently, COP26 had a big impact on me. To get SEDA into the conference took a lot of planning. Having the UN accept SEDA as an official non-governmental organisation attendee was a highlight, especially as the UK Government had turned us down.

Attending the conference was memorable in many ways. It was by far the largest environmental conference that I have attended. There were so many interesting and relevant presentations and discussions that, even now, I'm still thinking about them. What was disappointing was the presence of oil companies and the focus on unproven technologies to solve all of our problems. With COP 28 being held in Dubai, it is unlikely that we'll see any significant global climate change agreements coming any time soon.

More than anything I believe that change begins at home, that we can make a hundred small changes that together can make a significant difference. That was the main message that came out from the recent Howard Liddell seminar presentation by Satish Kumar, co-founder of the Schumacher College and someone who has been at the heart of social change for decades. His talk was inspiring and his simple message, Gandhi's "Be the change you want to see", could easily refer to SEDA and our work.

Four years ago I was asked to consider becoming SEDA Chair. After a lot of thought and discussions with those close to me, I said yes. I haven't regretted that for one second. It's been an amazing journey and one that started with that very simple first step. SEDA can only exist with the help and support of our members. For any of you reading this and thinking maybe you'd like to get more involved then take the first step. Make that one change and it will make a difference. You'll be working along with interesting and committed people who all share the same environmental goals. I'm looking forward to SEDA's future. Working together, who knows what we can achieve.