



IABSE
British Group

Henderson 2021
Responding to Change

Introduction

Since 1975 the British Group of IABSE have held a colloquium every summer for about 25 invited participants. The purpose of the event is to exchange views on a theme of topical importance to the built environment. Each participant is invited to make a short presentation to trigger constructive discussion. Traditionally, the event took place over two-days in the relaxed surroundings of Christ's College in Cambridge, however, due to the COVID 19 Pandemic the 2021 event was held online.

The theme discussed in 2021 was "Responding to Change".

Responding to Change

Tom Osborne, Knight Architects

These are tumultuous times. The pandemic has caused our lives, and our cities to change beyond measure. This change began as a short-term reaction to a global crisis but is quickly evolving into something more permanent. Perhaps we have now returned to normality, but what is this 'new normal' – what do we like about it? What would we change?

If everything was working perfectly before, it would be madness to not simply revert to it as soon as we are able. However, truth be told, it was far from perfect, perhaps even 'broken' in many respects. People have found positives in this radical shift which they may be reluctant to relinquish. Better work/life balance, increased flexibility, no commute to name but a few. And so, the step-change instigated by the pandemic may become permanent not through medical necessity, but through a collective desire for better lives.

Jan Gehl wrote "First life, then spaces, then buildings." It seems like our lives have just changed, and so now too must our built environment. As designers, we need to recognise that we are at a 'tipping point' where that which worked in the past may no longer work in the future - we have new challenges ahead of us and we will require new solutions.

We are presented with a relatively blank canvas, which for engineers and architects is a frightening thing - we rely on constraints to produce design, and on precedent to tell us what works. But this absence of certainty offers us a rare and unique opportunity to rethink our ways of working.

How can our profession not only rally, but refresh? How can we use this moment to create a step-change in our approach to sustainability? How can we build leaner, more agile, longer-lasting structures? How can we release our grip on concrete and steel? How can we design our infrastructure around people, not cars? This pandemic has generated a lot of questions that we should answer with clear-eyes and open minds.

Never let a good crisis go to waste.

Foreword

The online nature of the event contrasted starkly with the colloquium's long-standing background of being a small, residential gathering in one of the UK's most historic seats of learning. It was a clear reminder to all participants that things had indeed changed. The event itself became an exemplar for the discussion topic; representing a microcosm of the wider issues we were brought together to discuss.

There were, of course, pros and cons. For those who had attended a previous colloquium, the lack of informal discussion was clearly missed, yet, the online format made it much simpler to gather together experts from around the globe, many of which would not have made the trip to Cambridge. Furthermore, it became evident how significantly our diaries have all changed, with the fast-paced, rather fragmented world of online-meetings making the prospect of a two-day online workshop implausible, even laughable. How quickly we forget. Communication too, was different. Not necessarily worse, but perhaps less free flowing, the online forum creating a speaker/audience arrangement rather than a place suited to free discussion and welcomed interruptions.

In addition to the themes relating to the built environment, this challenge of a 'change in communication' was highlighted as particularly relevant to the Henderson itself. The online shift has been happening slowly over many years, but was propelled into a position of normality by the pandemic. We all settled-in quickly to our new home in Microsoft Teams; any port in a storm. But the ease and attractiveness of being able to meet anyone, anywhere, instantly gave rise to many more meetings than we had before. Now that we have taken our masks off, and cars begin to refill our streets, it is all too easy to forget how different our communication and working techniques once were, and it is clear that this component of the Change is going to be here to stay in some form. I think that many over-simplify the issue to one of 'remote working', but it is not only where we work that causes the communication challenge, but how we work. It might be the biggest change to happen to our industry since CAD took over from drafting tables, or e-mail took over from phone calls.

In order to properly bookend the discussion, it is only fitting that this dissemination event is the antithesis of the online colloquium. As we continue to experience and refine both environments, we will start to understand the relative benefits of each. So please, have a drink, chat to someone new, relax - none of you are 'on mute'.

Summary

Thank you to all the presenters, who brought together a wonderfully diverse, yet complimentary set of views on the subject. Please note that Copyright remains vested in the individual authors. References can be found via the QR codes:

Pippa Gibbs-Joubert, Copper Consultancy

Raising the Stakes



Pippa kicked-off the day with a call to improve our engagement with stakeholders, and public awareness of the built environment. Referencing Copper's "Public attitudes to net zero and infrastructure" study, Pippa highlighted that not only are we increasingly compartmentalised within our industry, but our industry itself is disconnected from the people it serves. She recognised that whilst there is strong support or renewables, Net Zero itself is not a driving factor amongst the public. Pippa recommended that we move away from a 'one size fits all' approach to consultation, in favour of tailored options which enable local people to engage in their own terms, and become advocates of investment.

Key Response: We must engage more

Nick Francis, Imagine Engineering

The Paradox of Disciplines



Nick's presentation broke the screen-sharing mould with a very thoughtful series of 'props'. He used them to explain Herbert Simon's theory of 'bounded rationality', which suggests that people's decision-making is limited by their individual cognitive or social circumstances. The theme of "silos" was introduced, which became a central topic to much of the discussion. We act within our own boxes/silos, and only through improved communication can we make rational decisions that are based on other peoples' experience and skill sets, for the good of all. This is the only way to avoid Forster-Lloyd's "Tragedy of the Commons" which theorises that without social or legal structures, individuals with free access to resources will primarily act in their own self-interest, and deplete resources to the detriment of all. He concluded by highlighting how online working and the pandemic have made our 'silo's' more separate, more evident, and we should be seek to ensure that communication between these silos remains strong, to allow our industry to grow holistically.

Key Response: Thinking outside the box begins with recognising there is not box

Catherine Ramsden, Useful Studio

Let's Leapfrog Convention: Capitalising on change and cooperating to challenge convention.



Catherine spoke about our responsibility as built environment professionals to 'design for change'. To recognise the unique and influential position we are in to shape and instigate a more sustainable built environment through our work. Catherine referenced the Strategic Development Goals, (SDGs) which provide a common language for engagement, without requiring specialist knowledge. Catherine introduced us to the SDG action manager, explaining how it is a powerful tool to take action, track progress and achieve transformative infrastructure. It is our collective responsibility to use such tools in order to organise and align ourselves as an industry, which is important, as 'strength exists in numbers'.

Key Response: We must focus our efforts on the areas that bring the biggest rewards

Gbenga Oludotun, WSP

Carbon, Collaboration and Construction



Gbenga's presentation focused on re-defining 'value' in the built environment. It resonated with that of Darren's, as both pointed towards the urgent challenge of properly assessing and monitoring carbon targets – what data we use, and how we use being of critical importance. Referencing the CIH Value Toolkit Overview, he broke value down into 'natural capital' (our stock of renewable and non-renewable resources) 'produced capital' (man-made goods and assets) 'social capital' (networks of shared understanding) and 'human capital' (our knowledge and skills). Gbenga recognised that our clients also play a crucial role in the re-definition of value; from the briefs that are written, to the way tenders are scored. There is a significant misalignment between what is needed, and what client briefs are asking for that we should aim to re-align through advocacy. We have a responsibility as designers, but there is also a need for government pressures, and better leadership to enable and implement systemic change. Those who fail to learn from history are doomed to repeat it.

Key Response: We need to re-define value for the built environment

Gavin Thompson, Buro Happold

Hospital of the Future



Simon used his work on the 'hospital of the future' as a vehicle to suggest how we might think-differently regarding our infrastructure in the future. He outlined the need for a 'shift to human scale' and also a 'shift from centralisation' as two key responses to the pandemic, mapping how inner-city travel, city streets and workplaces have changed pre/during/post pandemic. Gavin spoke about 'platform vs applications' as an analogy for our cities and their uses, and suggested that perhaps our platforms need re-imagining, questioning if it is even still fit for purpose. Gavin concluded by reminding us that, historically the biggest advances in technology often emerge where change is most difficult.

Key Response: How 'sticky' is Covid? We must design for adaptability.

Ali Cheshmehzangi, Nottingham University China

Health-Sustainability-Peace Nexus



Ali set out the arrangement of the Health-Sustainability-Peace Nexus; a series of interrelated components needed to create 'positive peace' as outlined in his recent book, "Urban Health, Sustainability, and Peace in the Day the World Stopped". Contributory factors ranged from an Equitable Distribution of Resources, through to a High Level of Human Capital and the Free Flow of Information – topics which resonated well with other presentations. Ali spoke about the 'smart city' vs the 'resilient city' and explained these relative to his six key sustainability dimensions: Physical (urban density/resilience/critical infrastructure) Environmental (Functioning government/essential operations/resource efficiency) Economic (healthy business/low corruption/resilient supply chain) Social (information sharing/human capital/public life) Institutional (Public rights/good relations/public networks) Technical (technology availability/asset management/smart platforms).

Key Response: We must change 'the city in need' to 'the city we need'

Bless Yee, Handel Architects

'Together Alone'



Bless Yee presented our artwork 'Together Alone'. A response to social-distancing, the piece beautifully summarised many of the key themes of the colloquium. Yee's drawing cuts a section through hexagonal pods that encapsulate our inhabited spaces. The hexagonal shape represents our self-proclaimed strength and efficiency around our designs, the same efficiency that circulated the virus with rapid speed. The hexagonal framework is deforming under the pressure of an evolving reconciliation for how we cope with the virus in our daily lives. Our pods are juxtaposed against one another revealing that we are closer 'together' than we think, and that we must act 'together' for the future.

Key Response: Our behaviours are a product of our surroundings, but our surroundings are also a product of our behaviours.

Tom Perry LDA Design

Designing for the Planet: Planning for Net Zero and Nature Recovery



Tom outlined how our urban landscapes have historically developed around the car. He highlighted the unique and perhaps brief opportunity we are now presented with the change that, to create new public realm which attracts people back to using their cities in more sustainable ways. The public realm acts as a framework for activity, life and commerce, and we are in a unique position to shape that framework. He referenced the Royal Town Planning Institute's paper 'Cracking The Code' which outlines how design codes can contribute to net-zero, and aid nature's recovery. Tom called for us to 'master nature', and to reject the premise that nature brings risk, to create more resilient landscapes and more sustainable, attractive urban centres.

Key Response: Let's shift away from post 1930 vehicle landscapes.

Darren White, KPMG

The Importance of Data



Looking at both the climate emergency and the circular economy, Darren emphasised how critical it is for targets to be properly defined which are commercially driven. This is particularly important for carbon, the reduction of which tends to be disconnected from commercial decision making. He referenced the Guggenheim paper “State of the Practice: Sustainability Standards for Infrastructure Investors” which gave a good oversight of the commercial strategy needed in order to respond to change, as well as the “Circularity Report 2020” which concluded that the world economy is currently just 8.6% circular. He concluded with the alarming statistic that every week the weight of human-made materials produced is equivalent to every person in the world.

Key Response: Data is essential. Make sure targets are commercially driven, deliverable contractual requirements

Dan Bergsagel, Schlaich Bergermann Partner

This is why we can't have nice don't need new things



Dan set out a series of metrics that highlight how the use of our cities have changed in the wake of the pandemic. From workplace attendance figures to occupancy rates of city buildings, he made clear that the pandemic caused a seismic shift in our way of living, and how our urban-fabric is used. He went on to show how that shift is slowly normalising – reverting to pre-pandemic patterns of behaviour. He explained how we are now in a rare and diminishing position to ‘lock-in’ this temporary change, to re-calibrate ourselves and our cities before we slip back slowly into previous norms. He highlighted this as a rare opportunity to sustainably address our housing shortage. Can low-carbon connectivity infrastructure make the existing hundreds of thousands of empty dwellings in the UK economically viable for occupation? Can vacant office space be re-purposed into housing before offices return to fill it, and can we repurpose better than we have in the past? If a building can't be re-purposed, Dan theorised that it should become part of a ‘material bank for re-use’. The re-use of this existing ‘material bank’ requires intelligent implementation from architects and engineers, who seek to understand the resources available. They must develop solutions for this existing material now, but future designs should actively facilitate reuse at their end-of-life.

Key Response: We must re-calibrate before we revert to type

Simon Richards, Land Studio

Connecting People with Nature



Simon spoke about one of the benefits the pandemic brought about – the opportunity to get out of our cities and become better connected with nature. He outlined the wellbeing and mental health benefits of people being more closely connected with wildlife, weather and seasons. He set out the clear link between biodiversity and wellbeing, and the significance of people’s emotional response to the landscape. Simon went on to explain how landscaping within urban centres is often diminished into ‘decoration’. Rather than being functioning natural habitat, we have simply accessorised (perhaps even ‘colonised’) nature for aesthetic purposes. He concluded with explaining that we now have an opportunity to re-imagine the natural environment within our cities, to be more honest, diverse and wild, and to improve sustainability and wellbeing as a result.

Key Response: We need to re-wild nature; it is not decoration.

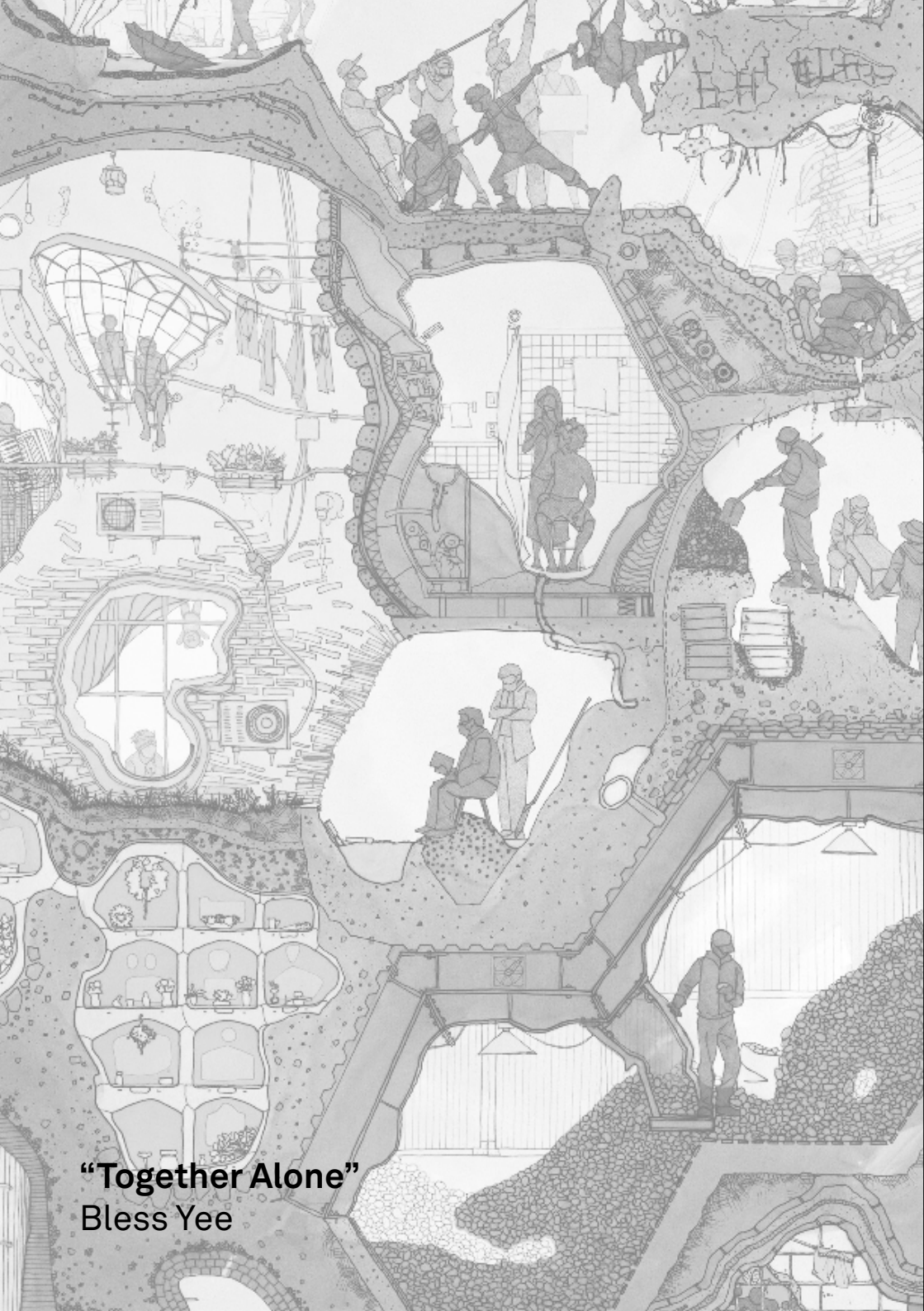
Oliver Broadbent, Constructivist

Questions to make regenerative design a reality



Oliver provided us with an excellent conclusion to the day’s discussion, by talking us through how to make regenerative design a reality. He set out the need for us to be advocates for change - stewards of nature. Oli reminded us that ‘you only learn if you do difficult things’, and asked us all to do three things – practice, educate, advocate. He drew upon his course “Training on what to do after declaring a climate emergency”, which outlined the need to bring our clients on the journey with us, particularly the procurement teams. He asked us to explore how we can all influence our clients to write better, more sustainable briefs, and perhaps even to decline projects we feel we should not be working on. Lastly, he asked us to assess what our ‘unrealised influence’ is, pushing within our projects as well as externally to advocate for change.

Key Response: What are we going to do next? Because my client isn't going to pay for it.



“Together Alone”
Bless Yee