



# University of Hertfordshire-Lafarge Tarmac Sustainable Living Partnership Conference

*Sustainable living – how do we get there?*

The Spirella Ballroom, Letchworth  
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## Proceedings

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(with additional notes from John McCormack)



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## 1. Background to the conference

These Proceedings document a conference – *Sustainable Living – How do we get there?* – which was held in April, 2015, at the end of a three-year period of research and related activity under the auspices of the University of Hertfordshire-Lafarge Tarmac Sustainable Living Partnership. The Partnership is directed by a Steering Group of senior staff from both organisations, and co-opted experts. It is managed through the Centre for Sustainable Communities at the University of Hertfordshire and the research reported on and discussed below has been undertaken through the Partnership by scholars at UH’s Centre for Sustainable Communities.

The *Sustainable Living – How do we get there?* conference explored the research findings and conclusions from a substantial comparative research project into sustainable living practices in masterplanned communities. The conference provided the opportunity to launch the Partnership’s major research report (and report summary): *People, Products and Places: Exploring Sustainable Living Practices in Masterplanned Communities* and was a companion to the previous mid-term Partnership research conference held in 2013.

The Conference was structured around a series of sessions: first to introduce and briefly explain the nature of the Partnership, and second to outline and discuss with participants the findings and conclusions from the comparative work into masterplanned communities. It then provided opportunities for different perspectives on planning for sustainable living in these settings to be explored and for speakers and conference participants to discuss the implications of these for practice and possible further research. The rest of this document is drawn directly from speaker’s presentations and notes taken at the conference.

## 2. Introducing our work on sustainable living

Session One introduced and provided context for the University of Hertfordshire and Lafarge Tarmac Partnership’s work on sustainable living. The session was chaired by Dr Susan Parham, from the Centre for Sustainable Communities at the University of Hertfordshire, who directs the Sustainable Living Partnership Research Programme. Dr Parham briefly introduced the day and explained that the intention was to celebrate the Partnership’s research achievements to date, explore findings from the research being launched at the conference, *People, Products and Places*, consider how those findings about sustainable living in masterplanned communities might be applied in practice, and think about applied research directions for the Partnership in the future.

Participants were formally welcomed to the Conference by Professor John Senior, Pro Vice Chancellor, Research, at the University of Hertfordshire. This was followed by an introductory presentation, *Developing Our Understanding of Sustainable Living* by Mr John Duffield, Property Estates Manager at Lafarge Tarmac, and the conference’s keynote speech *Can we Plan for sustainable Living?*, delivered by Mr

Pete Halsall, the Chief Executive of the Good Homes Alliance. These presentations were followed by questions from the floor.

## 2.1. Welcome to the Conference

*Professor John Senior, Pro Vice Chancellor, Research, at the University of Hertfordshire*

I am delighted to welcome you all today to our Research Partnership Conference.

I am very pleased to be here today, in this excellent venue, to welcome you to a conference that marks more than three years of collaborative research – undertaken through a very successful partnership working process with our partners, Lafarge Tarmac.

The University of Hertfordshire very recently launched its new Strategic Plan for 2015-2020 and it is interesting to note that many facets of the research to be reported on today are touched on in this plan. Our vision is to be ***'Internationally renowned as the UK's leading business-facing University'***. The business-facing aspect is demonstrated by working closely with business and industry partners to deliver innovative and impactful research which meets their requirements.

In addition, the Strategic Plan has a particular focus on community and partners where we will support our communities by promoting positive social, cultural and economic impact. Furthermore, we will do this by enhancing our relationships with business and industry, which in the case of Lafarge Tarmac, I believe we have done during the course of this successful research collaboration.

However, this works both ways of course and Lafarge Tarmac's support – both financial and through active participation in the partnership Steering Group – has been crucial to exploring aspects of *'how we get there'* in relation to sustainable living.

It is a big part of the reason we are all able to be here today. As a University we are immensely grateful for this fruitful collaboration.

It is heartening from our point of view that we have major industry partners who are highly engaged in supporting research into aspects of sustainable communities: partners who are very interested in understanding the perspective of the end user of their products and, like us, want to help develop a more sustainable world.

It was that shared perspective between the University and Lafarge Tarmac that gave rise to the Partnership in the first place and has underpinned the successful outcomes of this work.

I do now want to make some comments on the research we have come to hear about, to discuss, to reflect on and, I hope, to celebrate.

And from a research perspective, there is a lot to celebrate.

As you will hear today, the research into sustainable living practices in masterplanned communities has spanned two continents, five sites and many people have contributed. I am very pleased that some of you are here and will be speaking today.

As you will have seen if you have had a chance to scan the research summary, there are some intriguing findings and I want to touch here on just a few of those. Dr Parham will be discussing these in more detail this morning so I will be brief.

It is apparent that the intentions of those who plan, design, build and deliver new places don't always end up translated into practical living environments in the ways intended.

The research found that planning design practices vary very substantially from place to place. You might think that would obviously be the case, so it is no great insight, but given that masterplanning principles are well embedded in theoretical and applied literature the range of variation is intriguing.

It is also clear that people's attitudes and behaviours have critical impacts on how sustainable living in such places actually plays out. This is made more complex by the different perspectives that people who produce places and the end users of those places have on what constitutes sustainability.

For those who make places – the master planners, designers, and builders – the research found that this was usually about environmental aspects of sustainability. For some end users it was more often about being housed in a way that made them feel financially secure; while for others it was about social and environmental factors.

In addition, there was clearly a lot of 'goodwill' towards living more sustainable lives and we think harnessing this commitment to sustainability should be a focus for future applied research.

It was also apparent that issues of communication, governance and management all play a part. And the onus is on those with sustainability knowledge to effectively communicate sustainability possibilities to those living in masterplanned communities. A key finding that will be discussed was that active forms of embedding knowledge tended to be more effective than passive ones (such as working with people rather than just giving them written material).

It appears intuitive that there can be a gap between intention and reality when it comes to sustainable living. But I think what the research does, which is extremely important, is it offers specific suggestions for solutions to address these issues – both for producers and residents of living environments.

A lot of hard work has brought this process to fruition. That this substantial body of primary research and analysis has been successfully delivered is testament to the productivity and application of everyone involved.

In addition, a considerable number of residents, experts and other stakeholders across and beyond our research sites have been kind enough to give of their time and expertise to help us explore the research themes.

Special mention, however, should be made in relation to the input from Lafarge Tarmac of Cyrille Ragoucy, Stuart Wykes, Martyn Kenny, David McCabe and previously John Duffield variously as industry leaders and as extremely able representatives on the Steering Group.

Also at our Centre for Sustainable Communities we have had two excellent colleagues involved in undertaking the primary research, Dr Alasdair Jones and Dr John McCormack. We will be hearing from them both in due course about the primary research process and the findings.

A number of academics have also been central to managing the process from the Centre for Sustainable Communities: Dr Susan Parham who has overseen the research and Professor Austin Smyth, and the now retired Dr Stephen Boffey, who have both chaired the Steering Group.

They have been ably supported in those roles by staff members who have administered and given web presence to the work: John Conlon and Gill Rathjen. Many thanks go to them.

And last, but not least, you will have seen the very nicely produced research summary and the link to the full research report which is in your conference pack.

Our terrific editorial staff at UH Press Jane Housham and Caroline Hamilton have made sure that these research outputs are as attractive and accessible as possible.

I am very pleased to be able to welcome our line-up of presenters today, starting with Mr John Duffield from Lafarge Tarmac who has kindly agreed to tell us more about the Partnership and our excellent keynote speaker in the form of Mr Pete Halsall who is the Chief Executive of the Good Homes Alliance. Pete is a sustainable community developer, with a background in property development, construction and environmental engineering. He was co-founder and Managing Director of BioRegional Quintain Ltd, where he successfully led the company in securing developments at Middlesbrough (development agreement with EP) and Brighton (JV with Crest Nicholson). Pete is passionate about regeneration, sustainability and architecture. In other words: Pete quite clearly knows of what he speaks.

I am sure you will find today to be interesting, enlightening and challenging.

We have some further research ideas of course. But today is also a chance not only for us to tell you about *our* research but to hear *your* perspectives and suggestions for further research we might undertake, stemming from the rich area of sustainable living which you will note is the topic of the final session.

I would hope that this event is just the first staging post in our work with Lafarge Tarmac. We see the Sustainable Living Partnership as a highly successful vehicle for undertaking important research in this area - and long may it continue.

So my very best wishes to the speakers and participants for an excellent day considering the important topic: 'Sustainable living – how do we get there?'

## **2.2. Developing Our Understanding of Sustainable Living**

*Mr. John Duffield, Property Estates Manager, Lafarge Tarmac*

### Introduction

I am really pleased to be here today representing Lafarge Tarmac as a key partner in this highly successful Sustainable Living Partnership. Also, as I sat on the Steering Group for more than two years it is great to see this coming together of so many people to celebrate and reflect on more than three years of intensive work between ourselves and the university to reach this terrific 'hinge point'.

The research summary and the longer research report from which it's drawn, document a fascinating research process and findings which we are going to hear all about today.

As it says on the cover – it's about people, products and places – and as you will see from both publications – they talk about what helps and what stops people from actively contributing to 'sustainable living' in masterplanned environments. But I think it also offers clues for wider applications in other 'designed' settings too.

I'd like to see today not so much as the culmination of something but as a staging or perhaps sign post on a continually evolving partnership process – one that will keep producing interesting, timely and - above all - *useful* results for practice.

You might ask why would a company that produces materials for building be interested in any of this.

In fact at Lafarge Tarmac we take sustainability – and sustainable living – extremely seriously.

Sustainable construction is at the heart of how we do business – in fact our company's vision is to be our customers' preferred choice for sustainable construction solutions.

To achieve this vision we have set an ambitious strategy to drive the sustainability performance of our business, the products we create and our customers' businesses.

Our strategy is based on the established three pillars of sustainability, namely social, environmental and economic factors. We have long-term commitments to develop the next generation of sustainable solutions through relationships with universities and other research establishments.

Recognising the increasing need for information and guidance associated with new solutions we have also set a long term commitment to help our customers to use innovative solutions to create a sustainable built environment by providing industry leading guidance and information through the use of Building Information Modelling and carbon footprinting across our entire product range.

Our solutions are based on the principle of optimising whole life performance – I will repeat that - and we look forward to taking the learnings from this research project into our business and forthcoming projects such as Waterford Hamel near Hertford where we will be building eight market houses using insulated thermal mass Concrete. They will perform beyond Code level Six [Code for Sustainable Homes].

When it comes to sustainable living we really want to know what drives not only our immediate customers but also our 'end users' - to understand their attitudes and behaviours and for us to be part of creating more sustainable places now and in the future.

#### A bit about how we got here...

The genesis of this project really started with informal conversations about shared interests and concerns in relation to what 'sustainable living' is all about.

Those discussions evolved into the formalising of a relationship with the University of Hertfordshire's Centre for Sustainable Communities which – as today demonstrates very clearly – has borne some very useful fruit.

The Partnership began formally at around the end of 2011.

It came about from a desire to face up to the complex, interconnected challenges of creating sustainable communities as well as sustainable dwellings.

The Partnership objective is to create and to continue to provoke a debate about sustainable living and contribute to national and international work on this theme.

And the key idea we had at the time of its formation remains at the core of this partnership working process.



Fundamentally, the idea of the Partnership has been to combine Lafarge Tarmac's and the University of Hertfordshire's practical and academic expertise. And the point has been to inform and influence the agenda in three specific areas:

- First of all this is about designing sustainable places to live – carrying out research into masterplanned communities stems from that focus, and I have to say, increasingly I see design as being at the core of the matter, and it is crucial to see the design not as a negative or as a cost but as a positive value creator.
- Secondly it is about moving away from fossil fuel dependence – it's easy to say we want to move to a low carbon economy, and we know we have to do this, but *how* to do so in ways that don't penalise people is a hard nut to crack. Again, design plays a key role in this.
- Finally it is about supporting sustainable transport choices – as we know, that is all very well in theory, but how to get there is something we are grappling with as placemakers and masterplanners. Design again can play a key role.

The Partnership is focused on three things - generating debate, innovation and useful results through a major programme of applied empirical research and other activities including 'think pieces' or as David Lock calls them, provocations. If you have any ideas for a provocation, please talk to Dr Susan Parham.

The activities of the partnership, including Drs Jones and McCormack's research, have been overseen by a high-level independent Steering Group, comprising members from Lafarge Tarmac, the University of Hertfordshire and external invitees.

Today's conference is an opportunity to share our findings and debate the issues raised in a productive, applied way and report back to participants and a wider set of stakeholders through a conference report.

Please participate and engage in the break out sessions. Please help us continue the debate. Enjoy the day.

### **2.3. Can We Plan for Sustainable Living?**

*Mr. Pete Halsall, the Chief Executive of the Good Homes Alliance*

You CAN plan for sustainable living. You begin by setting the intention: what do you intend achieving? Developers are good at front end planning and designing, but less good in terms of their role at the end of new developments. It is important for developers and designers to think outside boundaries, and be cross disciplinary.

Developers, architects and designers should have experience of managing an occupied set of buildings. There is a need for building physics and sociology to work together, when planning new communities.

Research is needed before projects are planned: we need to ‘slow down to speed up’ – taking more time at the initial project planning stages to undertake relevant research will prevent problems and setbacks further down the line, as we’ll all know and understand better what we are doing.

Universities can use land assets to build sustainably.

We can learn from our mistakes as developers, designers, architects, but there must be a feedback loop. We must not be frightened to learn from our mistakes.

There will be resident control at One Brighton.

However, not everything worked out as planned, notably we had problems with the biomass boiler. Also, the scheme has its own share of social problems, including a first and second drug den.

One Brighton was developed within a set of principles – the ten principles of One Planet Living. Three of these were particularly important at One Brighton: zero carbon energy, sustainable transport, and food sustainability.

At One Brighton the intention behind the rooftop allotments was principally social, and not food-related. Gardener’s Question Time was broadcast from here twice. We use the principles behind the allotments to characterise the development: the story of the flats...

Some concluding thoughts.

We ensured at One Brighton that developer engagement with potential buyers about sustainability was over and above the norm in a property sales context.

The Good Homes Alliance (GHA) is a developer-led NGO, with a diverse membership. It now has some local authority members, now that councils can be house builders once again.

People’s behaviour can broadside you. As explained, there was a drug den at One Brighton which we had to deal with. So place is important but it is not entirely place that dictates sustainable living practices but also what is going on in people’s heads.

What constitutes community? We need to work towards a better sociological understanding of community. We need to rebuild a sustainable community model.

## **2.4. Questions from the floor**

Dr Parham introduced the Q and A session, saying that it was interesting to hear from Pete Halsall that ‘front end’ designers and planners were often very good at the design but very bad at understanding the ‘back end’ of how developments would be for people living in them. This focus on the need to understand the life of buildings

reminds me of Stewart Brand's excellent book, "How Buildings Learn". As John noted we have to learn from good examples like the Joseph Rowntree Derwenthorpe development in York. We need feedback mechanisms. The comment on the need to 'integrate, integrate, integrate' was something we perhaps all could heed more, and of course, as someone trained in urban sociology, I was heartened to hear Pete Halsall saying that we always 'have to get a sociologist involved'. Also as someone working on food and sustainable places, it was good to hear about food coming through as a theme so strongly. One point that also emerged of interest was the need to focus on thermal comfort in summer as well as winter; increasingly so with global warming.

### **Comments and questions:**

There are similarities between developing sustainable living in masterplanned communities and computing: how do the 'soft' aspects (i.e. working with communities) translate into hard aspects (e.g. sales, efficient use of products and services)? We need to take end users into the design process.

Costs might be front-loaded but the benefit might only be had further down the line.

On the other hand, you don't necessarily have to spend more money up front to develop sustainably designed new housing: the cost-benefit issue is more complex than is sometimes thought to be the case.

Sustainable living (including in a building design context) is not necessarily about innovating but also about sharing knowledge regarding design.

It is important to involve different groups in the design and planning stage, e.g. cycling groups, Friends of the Earth.

How did UH choose the sites for case study research? [The Chair noted that would be covered in presentations in session two.]

You get better outcomes if you involve the community.

### 3. Exploring our research findings and conclusions

In Session Two the focus was on exploring the research findings and conclusions from the research into sustainable living practices in masterplanned communities, documented in the research summary and the longer research report into *People, Products and Places. Exploring Sustainable-Living Practices in Masterplanned Communities*. The session was chaired by Dr Susan Parham and took the form of three presentations from academics involved in undertaking the research.

#### 3.1. What we found out: Australian field work and case studies

*Dr Alasdair Jones, Department of Methodology, London School of Economics*

I am going to discuss the Sustainable Living study aims, the Study setting I researched (Australian cases), its findings and research implications and directions.

The Study concerns the fit between designs and social practices from perspective of 'sustainability'. It asks the question: *Do people use 'ecologically sustainable design' (ESD) features built into their homes and wider neighbourhoods in the ways that those features are intended to be used?* It then uses this analysis to inform the delivery, marketing and management of residential developments. The research draws on an established "tradition in environmental social science [that] relates to research on the role of the environment in framing everyday social practices" (Barr and Prillwitz 2013: 33).

'Sustainability' is broadly conceived – environmental sustainability (carbon emissions, water conservation etc.) but also social sustainability (neighbourhood liveability, sociality etc.). We wanted to understand whether or not developments labelled 'sustainable' according to their design specifications are sustainable in practice.

In the research we ask are ESD features used as intended and efficiently? We take the view that:

*Form, in and of itself, is not measureable in terms of sustainability. Asking whether a compact city, or any other form of the city, is sustainable is like asking whether the body is sustainable. The proper question is not if the body is sustainable, but rather does the being that inhabits the body live sustainably? (Neuman, 2005: 23)*

This picks up on broader theoretical accounts of human behaviour is not always economically, or otherwise, rational.

Schemes like Greenstar (Australia), BREEAM (UK) and LEED (US) have historically tended to assess design features of buildings and developments through modelling at the planning and construction stage, rather than the ways that a given building or development is lived in post-occupation.

#### Methods

Much 'household sustainability' research has been quantitative (survey-based) to date (see Barr and Prillwitz 2013). We agreed that

*"[M]ore work needs to be done to see how sustainable practices are enacted in modern eco-homes. Here, cultural approaches help immensely, through ethnographic work, diaries and in-depth interviews"* (Lane and Gorman-Murray, 2011: 10).

The focus of the Australian component of the overall research was on two masterplanned residential developments comprising design and planning features marketed along lines of 'sustainability' - one in outer and one in inner Sydney. This was a qualitative study, which encompassed interviews, focus groups, and field observations. Research participants were recruited according to a 'purposive sampling' strategy and data analysed thematically.

The work overall looked at sites in the UK – in the southeast and east of England and in Australia – in the Sydney Metropolitan Area. The UK and Australia were chosen as case study contexts – because they are broadly comparable in terms of levels of development yet despite a shared heritage there are noteworthy variations in approaches to design. For example, we noted the importance of different levels of land availability to the design tropes evidenced in each country.

Climatic differences too may be of importance as we try to cope with some of the more immediate effects of climate change (and weather events we are not accustomed to) in each location. For example, Australians are much more accustomed to weather we're experiencing (enjoying!?).

The two sites in Australia were:

Park Central (developed by Landcom) in Campbelltown in south-west Sydney, a mixed-use site covering 37 hectares with 723 dwellings including a retirement village.

Jackson's Landing (developed by Lend Lease) in inner urban Pyrmont on 11 hectares with 1,339 residential units, mixed-use elements and 3.2 hectares of public space. At Jackson's Landing liveability was emphasised – it was marketed as "[a] place where you will make friends and know your neighbours" (Lend Lease, n.d.: 2)

*"Jacksons Landing is a wonderful example of a thriving community that has been created from a previously underused part of the city. It demonstrates how important it is to create a place that is culturally sensitive and environmentally sustainable for future generations"* (Lend Lease CEO, in Lend Lease 2012 : 14)

Located in Pyrmont, the most densely-populated borough in Australia (13,850 residents per km<sup>2</sup>) the development includes the 'Antias' building – the first apartment building in Sydney to be awarded a 4 Star Green Star - Multi Unit Residential Design v1 certified rating. Fostering a community is emphasised – BUT,

claims about environmental sustainability are made by the developer at the highest level too.

The data collected can be summarised as follows:

- The Australian component of the fieldwork is complete, with the majority of data collected between Feb-June 2013
- 57 residents took part in in-depth interviews (one-to-one or 'paired') and focus groups across the two sites
- The split was 51% men and 49% women; with 38.6 % born overseas; and a spectrum of ages was covered
- At Park Central there were 13 one-to-one interviews, five paired interviews, and one focus group covering eight residents
- At Jackson's Landing there were 15 one-to-one interviews, three paired interviews, and one focus group with six residents
- For both sites observations were conducted over multiple site visits

### Findings

I now want to discuss the main findings from the Australian component of the study. Some of these corroborate existing findings in this area; others provided new insights into relationship between living practices and sustainability in masterplanned communities.

#### **Sustainability and economics**

So, a broad finding, which is well-rehearsed, is that adoption of sustainability practices and technologies was most likely when the economic benefits of change outweighed the costs.

Potential for financial savings seemed to underpin more sustainability-mindedness. Thus decisions to live more sustainably – reduce energy consumption, change light bulbs, reduce car use – were almost invariably driven by cost considerations. This was at the scale of 'Strata committees' (resident committees responsible for individual apartment blocks) and individuals. N.B. this was from a relatively low starting point. Energy costs have risen significantly in Australia (e.g. electricity costs have increased by about a third on average in past 3 years).

In terms of costing sustainability interview findings were instructive:

*Interviewee: We separate everything from the garbage. We do everything we're supposed to do. ...Do stuff that will save money.*

*Interviewer: Money is the driver and the environment stuff comes second?*

*Interviewee: Yes*

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*Interviewee: The trick about selling sustainability is to tell people it will save them money, [...to be] very focussed on the payback, how much it costs upfront and what the payback period is*

In an interview with one of the most apparently sustainability-minded residents of Park Central I spoke to (they had installed two sets of photovoltaics on the roof) – even then money was the ultimate driver. In the second interview cited, the interviewee was a strata committee member for an apartment block at Jackson’s Landing that recently had its energy use audited as part of the City of Sydney’s ‘Smart Green Apartments’ scheme. The finding was that, broadly, people were not more sustainable for its own sake – the main concern was economising.

### **Tensions between sustainability and other dwelling preferences**

There were tensions between sustainability and other dwelling preferences. The choice to live more sustainably doesn’t exist in isolation. Other dwelling preferences impinged on the capacity to live more (environmentally) sustainably, often in practical ways. One (if not the) main priority was security. Securing masterplanned communities appeared to conflict with promoting sustainability in some instances. Sustainability was competing with many other priorities for developers and homebuyers alike.

An example from Jackson’s Landing reflects this security versus sustainability point. Jackson’s Landing apartments with lifts only allowed residents access to their own floor. Stairs were alarmed and kept sealed in case of fire. A few interviewees reported strategies to ‘game’ the system. So, to get from the 16<sup>th</sup> floor to the 17<sup>th</sup> you had to take the lift a total of 33 floors. Some people worked out ways to get around this too – innovation. This made for environmental sustainability issues (superfluous use of lifts) but also meant that residents struggled to socialise with people from different floors of their building. One relevant comment was:

*Not only for this development but just generally, people seem to think security is a very important issue these days. ...[A] simple example is my neighbour upstairs, ...if I want to borrow an onion from her or something, I have to go down to the ground floor, go outside the building, buzz her, and then she gets to buzz me up. There’s no access between the floors at all because there’s an alarm on the stairwell, and if you go in there, the alarm goes off, and it’s also pressurised for fire and safety reasons.... I have to use the lift to go right down to the ground floor, I’m on level 7 so just imagine if you’re on level 18 and knew somebody in 17 you’d have to travel 35 floors to get one floor down, which is crazy. (Interviewee)*

It is worth noting that energy consumption of lifts typically represents 3-8% of the total energy consumption of buildings. In Regatta Wharf (a building at the Jackson’s Landing development) common area electricity produced 1,223 GHG tCO<sub>2</sub> per year (vs. 760 GHG tCO<sub>2</sub> per year produced by 143 apartments [Net Balance, 2013: 4]). A National ‘Smart Blocks’ initiative was recently launched precisely to help “you save

energy in your apartment block's common areas" (<http://smartblocks.com.au/>)  
However, security fears were preventing a more sustainable (and healthy) approach.

Security versus sustainability issues also compromised walkability. For example, Park Central (the outer Sydney development) was designed in such a way as to feel 'private' (interviewee) and secluded:

*Interviewee: [I]f someone who's not familiar with the area is dropping me off at home, you do notice it's not well signposted, so you can get confused.*

### **Design barriers to walkability**

Design barriers to walkability were a broader issue too. Park Central is extremely close to shopping, public transport and entertainment facilities, and marketed as such. BUT, accessing these on foot was not easy. There are six-lane main roads to contend with, and very short crossing phases for pedestrians. Some, especially elderly (N.B. nearly half of residents are in retirement village) were thus dissuaded from walking, as interview findings showed.

From Park Central, residents needed to cross six-carriageway main roads to get to the two nearest shopping centres. The short pedestrian phases were noted by interviewees (especially elderly interviewees). They reported that they did not feel confident accessing local facilities on foot; opting to drive instead. A view was shared that the pedestrian phase was not sufficient to cross these roads, and this was so "[e]specially for some of our residents with walkers and that, because if you walk with them, it is very slow." e.g. Park Central focus group respondents reported that they 'mostly drive' to do their shopping at Macarthur Square (~800m away) and Marketfair (~500m away). One interviewee drove to the interview.

*Interviewee: I would say a lot of people, if they wanted to go into Campbelltown, would just drive. That seems to be a culture here. I've lived in this area – not this particular area but this greater area for pretty much my whole life and that's the culture, like drive to your local shop.*

This needs to be understood in the context of the dominance of the car in Australia (68.1% of Sydney trips), and in particular in outer suburban areas. In 2010/11, 68.1% of trips in the Greater Metropolitan Area of Sydney were made by car. This contrasts with 35% modal share of car journeys in Greater London in the same year.

### **Sustainability designs aren't necessarily practised**

That sustainable designs and infrastructure are not necessarily used in practice was most striking in the Antias building at Jackson's Landing where a 'Switch Automation Energy Monitoring System' had been installed in each house and apartment. This came with an 8-page 'energy usage operation manual'. This was despite the provider putting on an information session for Antias residents after the completion of the building.



The energy monitoring system in Antias, Jackson's Landing was mentioned in interviews:

- I1 *It measures daily, hourly, instantaneous, weekly, monthly, yearly usage of all and graphs it out. It's a pretty smart unit and this is the most basic of this model that we have got. ...*
- AJ *Do you use it?*
- I1 *No*
- I2 *I can work the five-day weather forecast. I use it for the weather forecast and assess whether I should book tennis at the planned community tennis courts!*
- I3 *Never. It's a bit of a gimmick if I'm totally honest.*

**BUT**, none of the Antias residents I spoke to (n = 6) used it...

This applied to other aspects of design too...

- I *Apparently I have a water tank, but I've never used it because I don't even know where it is.*
- AJ *Who told you had a water tank?*
- I *The real estate girl told me I had one, then I spoke to the builder who wasn't sure, then I spoke to someone else and they said no, and then one of the strata people said yes I do. Well, how do I use it? They weren't sure. Apparently it just gets put in with the rest of the water. I don't know.*
- 
- I *We had solar but it broke. The landlord didn't fix it so now we're on the gas tank.*

At the same time, unsustainable features that were built-out in the design were often retrofitted. These results in practice appear to suggest that we need to do more than simply build sustainability in or build out unsustainable technologies. We need to educate and enable residents too.

*I1 Unfortunately, most of this precinct has been designed so that you wash your clothes and then put them in a dryer; in fact it's a body corporate edict that you can't hang out washing on the balcony. I'm fortunate that I've got a cement section on my balcony and I hang it behind that. (Interviewee, Jackson's Landing)*

What can we do with these findings?

The Sustainable Living Study is concerned very much with PRAXIS – what can we practically do with the research findings we generate? How can we work with practitioners to operationalise our research findings? Environmental scientist, Maurie Cohen has stated that:

*“The last decade has seen considerable progress in the development of an expansive technical repertoire with which to [diagnose] currently unsustainable consumption practices. ...These developments, however, have not been matched by commensurate progress devising actual policy initiatives to foster more socially and ecologically benign provisioning practices” (Cohen, 2006: 68).*

### Implications

**Moving house as a window of opportunity** to make changes towards sustainability. The ‘habit discontinuity’ thesis hypothesises that ‘lifecourse transitions’ may be key ‘windows of opportunity’ for fostering behaviour change. Of such transitions, moving house is seen to provide particularly fertile ground (See Roy and Verplanken 2013 ‘HABITS’ field experiment).

*“A significant improvement in sustainable behaviour was observed only in the group who had been living in their home for 1-13 weeks and who received the intervention...[W]e suggest selecting locations where there are a larger group of individuals going through a life course change (newly built residential areas are good examples)” (see their study summary and see also the work of the Sustainable Lifestyles Research Group).*

Thus, at Park Central the Welcome programme started to work with the local Macarthur Centre for Sustainable Living.

Moving house is a window of opportunity to foster (that is, ‘prefigure’ (Schatzki 2010) change. Masterplanned communities are particularly suitable – in material terms, and new residents are often moving there for a particular, more ‘convenient’, lifestyle:

*What attracted me was being so close to the shopping centre, the train station, the hospital especially, and just the convenience, the walking everywhere, that you didn’t have to rely on a car, if your car broke down, it was like, well, that’s okay. (Park Central interviewee)*

**Residential longevity and sustainability** - Many interviewees understood ‘sustainable’ as meaning you could live in an area for a long time. A ‘sustainable’ place was one that served multiple generations. BUT, this may have important positive implications for environmental sustainability. This is first because retirement is another important (potentially fertile) life course transition, and second, because retirees were very active members of the community and had the time and skills to push for change.

I1 *There’s one crossing on Hyde Parade which I fought for, for three years. I’m a stirrer. ... A pedestrian crossing. ...[P]eople were going across to the...newsagent and all the doctors.... Every Sunday morning, the people come down to get their Sunday papers and there was no pedestrian crossing.*

*...[I]t took three years after we moved in of writing letters, talking to Alderman, making friends of one particular Alderman who was on the Traffic Committee and really a long time.*

12 *And a phone call to a reporter, and for their photographer, organising a group of people from the hospital, walking frames, sticks, walking across there, about 20 of them.*

11 *A Councillor came to look at it one day to see how bad it was and that was an engineer from the Council, and I arranged for it to be very busy that day. But eventually it went in and it's been used every day. People want a zebra crossing here but it's too narrow.*

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### **3.2. What we found out: UK fieldwork and case studies**

*Dr John McCormack, Centre for Sustainable Communities, University of Hertfordshire*

#### The research - our approach

The research is based on material culture theory – material objects (including buildings, roads, communal lands) only obtain meaning through their use. We asked to what extent is the intended use reflected in the actual use? To what extent are the intentions of masterplanners, vis-à-vis sustainable living, reflected in the day-to-

day lives and practices of people living in masterplanned communities? Ultimately, the research question is a theory versus practice question.

In the United Kingdom we explored three case studies – urban (One Brighton), outer suburban (Grand Union Village, Northolt), and rural (The Wixams, Bedfordshire). The case study sites were selected using criteria relating to:

- sustainability claims (e.g. in marketing material, plans, policy documents)
- minimum (then) Code for Sustainable Homes Level 3
- site or phase completion and dwellings occupied for at least one year
- accessibility of sites, documents, interviewees
- co-operation from a 'gatekeeper'

Key data sources were a) master plans and associated documents; b) visual ethnography; and c) semi-structured interviews with a sample of residents. We wanted to explore the intentions of planners, and the outcomes and practices of end users – both residents and other place users.

To explain a bit more about the primary data, we undertook semi-structured interviews with 10-20 residents per case study site with 47 interviewees taking part in 43 interviews. Gatekeepers, flyers, press releases and shopping vouchers were used to recruit interviewees. The interviews were recorded (with consent), transcribed and analysed both inductively and deductively. Interviews were supplemented by observations and photographic ethnography. Primary data was further supported by data from the literature review.

About the sites:

At One Brighton there were 172 apartments in two residential apartment blocks, located next to Brighton railway station. This included offices and community spaces (including a cafe and training rooms). The residential component was mixed tenure (including buy-to-let, shared ownership and social housing). There was a range of sustainable-living features claimed; relating to construction materials, food, energy, transport and management.

At Grand Union Village there were over 700 dwellings adjacent to Grand Union Canal in Northolt, Middlesex. There were commercial and public services premises included at the site. There was mixed tenure, with a range of social landlords as well as buy-to-let landlords (and tenants). Claimed sustainability features related to transport, renewable energy targets, open spaces, and community development among other features.

At the Wixams (Village 1) there were around 900 dwellings situated in a new settlement in a semi-rural location north of Bedford, mainly on brownfield land. Eventually, there is potential for the new settlement to have up to 4,500 dwellings in four new 'villages'. The design draws inspiration from Ebenezer Howard's Garden City Movement. Claimed sustainability features relate to building structure and

amenity, environmental features including a sustainable urban drainage system, transport, employment, public services, and social cohesion.

#### Key findings from the UK research sites

Masterplanning is in itself, a work in progress. It is often a jigsaw puzzle. Generally there is no one overarching masterplanning document.

Delivering on masterplan elements has notably been a problem at Grand Union Village due to the non-appearance of the leisure/sports complex, or the planned bus service. At the Wixams the intended railway station has not yet been built, there are issues in relation to proposed allotments, and the employment zone, for example.

Interpreting sustainable living varied across the sites and within them. This is a broad concept, which is open to wide interpretation. There were similarities and differences across case study sites (e.g. the food emphasis at One Brighton, the Community Development Trust at Grand Union Village, and the idea of a 'balanced community' at the Wixams).

Investment landlords' buy-to-let activities at One Brighton and Grand Union Village meant a significant population were in private rental, with some resulting issues related to accessing sustainable living information, infrastructure and services.

The role, significance and perception of social housing was mixed. Arguably public funding could be a lever for raising the bar in relation to sustainable living. Some residents perceived social housing tenants to be privileged in terms of provision of 'green' energy infrastructure by their landlords.

'Technological determinism' was identified in that design and technology appear to be seen as the driver of behaviour change, rather than this coming from hearts and minds.

Communication and learning was seen as critical although there was limited human interaction in respect of learning about sustainability features of dwellings. This was particularly problematic for tenants of buy-to-let landlords.

Leadership, governance and housing management were all seen to play a part. We wanted to better understand what happens when the keys are handed over. Civil society groups, e.g. Neighbourhood Watch at the Wixams were seen to have an important role in fostering sustainability.

Ethics, values and commitment were all relevant to embedding sustainable living. There were variations amongst both developers and residents and other end users – sustainable living as a way of life versus sustainable living as a sales pitch.

Sense of community varied at the sites studied. The Wixams appeared to have a stronger expressed sense of community than either One Brighton or Grand Union

Village. It is possible that demographic factors (including age, race and ethnicity, family status) and tenure factors (little apparent buy-to-let activity at the Wixams) were relevant. Yet its low density, rural location meant that it may have been the least environmentally sustainable of the three sites due to the carbon emissions and other effects caused by driving to and from it.

#### Some observations from UK research sites

Masterplanning practices are still nascent and may be widely variable in terms of their expression in masterplanning documentation, as reported widely in the masterplanning literature. It is not always clear what sustainable living intentions or assumptions are. This may change if more standardised master planning processes emerge over the next few years.

Numerous complex and contested issues mediate sustainable living intentions and (non-) sustainable living behaviours and practices. These are not always addressed critically in masterplanning processes. In fact a range of process aspects can be unclear e.g. learning (What? How? Why? Who?), agency (Individual? Collective?), governance (Individual? Civil society? Developers? Managing agents?), delivery (What happens if it doesn't happen?).

There is an apparent need for ongoing efforts at consciousness-raising and encouraging sustainable living practices after the keys have been handed over – winning hearts and minds. This could involve reconsidering the roles of end user, developers, landlords and managers, and the relationships between them.

### **3.3. What do the findings tell us about planning for sustainable living?**

*Dr Susan Parham, Centre for Sustainable Communities, University of Hertfordshire*

#### Our conclusions

In relation to **masterplanning practices**, the research highlights that planning and design practices vary substantially from place to place within masterplanning approaches. What constitutes a masterplan itself is subject to fairly wide variation in different places. Masterplanning guidance is being interpreted in variety of ways that are more or less successful on the ground, in terms of achieving sustainable-living outcomes. It may be that clearer connections between guidance and practice are needed. We saw a number of examples of 'slippage' between defined sustainability proposals and actual practice.

Is there what we called **technological determinism** at play? The building-in of sustainable technologies and systems (in buildings/place design/planning) makes a lot of sense and we would fully support using sustainable urbanism principles to inform development at the scale of the house outward. However we also saw that 'fit and forget' and 'fabric first' solutions can be tweaked or subverted by user practices. Thus decisions about being sustainable made for place-users will not

entirely build out the possibility for being unsustainable. Other methods to embed sustainability need to be used too.

We therefore challenge the view that with 'right' technology, infrastructure and systems in place residents and other place-users simply respond in sustainable ways. Instead, as we found, various aspects of sustainable practice came from the interplay between people and things (which reflects our material culture approach and hypothesis). Given that elements of sustainability infrastructure are not always used as expected (and end-users could support or subvert expectations, techniques and infrastructures through their behaviours) it follows that education needs to happen not just with those who use places but those who make them, to challenge sometimes deterministic assumptions.

We asked what makes a building or place 'sustainable' in practice? Our view is that closing the gap between performance ratings and end-users' actual practices is obviously important if we are to achieve more sustainable outcomes in masterplanned and (probably) other new developments. This gap happens at a number of scales – including at the level of the dwelling and the wider place in new developments. At the building level, for example, at least some residents have bought into 'green' buildings for resale value rather than sustainability *per se*. That is, of course, perfectly reasonable but means that it is important that features of design that render buildings green (in terms of accreditation) correspond to features of design that foster sustainability in practice.

Our interviewees demonstrated widely different perspectives on sustainability. It was perhaps no surprise that the research shows evidence of different perspectives on what constitutes sustainability. For some, the balance was more towards economic aspects; for others the emphasis was mostly about social and environmental sustainability factors. Not only did the balance between these sustainability aspects vary; there were also different levels of expressed commitment to sustainability (however understood) among end-users of housing and related spaces across the five sites. This was for range of reasons discussed in the research report but had sometimes-negative results in terms of how sustainably people actually behaved as place-users of the masterplanned built environment.

It is worth noting, too, that manufacturers, developers and builders to greater or lesser degree are providing products which are intended to be applied in ways that support sustainability capacity, often understood primarily in environmental-sustainability terms. Again this is both understandable and laudable. However, many interviewees, meanwhile, understood sustainability in more social or economic terms, as meaning they could live in an area for a long time or make a decent profit at resale of their dwelling. These differences in perception need to be taken into account to pitch sustainability appropriately and influence practices.

At the same time, even if it is not a primary driver, sustainable living in environmental terms is something where various end users of sites demonstrate considerable goodwill and willingness to alter their day-to-day practices in relation

to aspects like food-buying, consumption and waste. Often a perceived lack of commitment to sustainability is as much structurally imposed as individually chosen: such as residents driving rather than using other more sustainable travel modes because provision is perceived as too poor to be a practical choice (such as at the Wixams with no local railway station yet being built, or at Grand Union Village with inadequate local bus provision or shops). The objective reality in some sites is of insufficient transport infrastructure and overly large walkability radii for services and employment. People make choices that reflect that reality.

**How to communicate sustainable practice?** Quite a lot of our findings were about materials and space, but we also found a fair amount of interesting data about the sustainable-living implications of the nature of communication and learning in masterplanned communities. A notable point from across the research was that passive communications including home 'manuals', (guides for using homes and household technologies), tended to lack efficacy in promoting and embedding sustainable practices. We found that very detailed and technical guides just 'went on the shelf', so more active approaches including welcome programmes and other ongoing and active community-based methods may make more sense. Similarly, when green caretakers or resident support staff have been present they have often been able to communicate sustainable ideas and support sustainable practices much more effectively than other, more passive means.

**Impact of buy-to-let and mixed tenure on sustainable-living practices** Much of the focus is on places where most of the housing is for private sale with a smaller proportion socially rented. The tenure split has thus been private owners, social renters and, increasingly, a substantial proportion in private rental. We have some interesting (although often hearsay-based, that is, an interviewee telling us about another person's experience) findings in relation to impacts of different tenures on sustainable-living practices among place-users. For example, a proportion of owners were buy-to-let landlords and some interviewees thought that their tenants did not necessarily have the same level of access to, or degree of benefit from, engaging with sustainable features. Of course, this may have been part of a speculative assumption that tenants are going to be short-term residents who are less interested in sustainability than those perceived as having a more long-term investment in the place.

A specific example was from a tenant who explained that information about how to engage sustainably with their dwelling and the development was likely to be given to the landlord rather than being directly available to them. The tenant had less chance to be aware of features like the site's community café, training facilities, recycling facilities and access to allotment gardens than would residents with more direct access to information and support.

**Governance and place management** Some of the points that the research raised were not so much about individual decisions, behaviours and attitudes about sustainable living as about more structural aspects. It was clear from the fieldwork in both the UK and Australia that where there was good leadership from, for example,



the developer(s), management company, tenants' organisation etc., the capacity to undertake ongoing sustainable behaviour rose considerably.

Linked to the above, we found that property managers' views about what kind of role they could or should play in promoting sustainable living was quite variable. Some felt it was part of their remit; others did not, or only in a very narrowly defined or circumscribed way. Sometimes this was in part because their employers did not emphasise this as important. This had implications for management attitudes and behaviours, with flow-on effects on sustainability performance once developments being lived in.

### Research directions for the future

We felt that there was a rich range of possibilities for future research stemming from our findings. These included more work on the nature of masterplanning practices and ways of tackling 'determinism'. Specifically, further research into masterplanning practices as a route through which to embed sustainability would be helpful. It would act to generate findings and conclusions about such methods and could focus in on slippage that we found can happen between intentions and outcomes on the ground. Such work would help reshape and refine both guidance and practice in the field.

The issue of 'technological determinism' – we could further explore the active interaction of people, products and systems rather than treating place-users as passive receivers of products. Our research suggested that there is still work to be done to ensure that those involved in the masterplanning, design, development, building and construction fields understand behavioural implications that come into play with place-users and how these can affect sustainable living.

Communicating sustainable practices – we would like to know more about how this can be made more active in nature. A research question stemming from this is how do those involved in design and delivery expect end-users to know, appreciate and work with design features and amenities that have a sustainability imperative? What theory of learning underpins this, and what are its implications for better future practice? Similarly, in relation to being sustainable in practice, we would like to research more about the impact of gaps between masterplanning intentions and built form 'on the ground' on sustainable actions by place-users.

Commitment to sustainability – a big question is to what extent is this personal, collective or structural? Further primary research into actual practices relating to commitment to sustainability would be instructive. This would help further tease out what commitments people do and don't make to sustainability and why, and thus where gaps in commitment exist, what is causing those gaps and how best these might be tackled to support sustainable living.

Tenure related issues – how can structural impediments to 'being sustainable' be overcome? A research question this raises is how far do, or can, masterplanners and

other professionals interested in supporting sustainable living address these issues? With an expected rise in proportion of private renters, how can we make sustainable living 'tenure blind'? How can we support private landlords to fulfill their responsibilities in this area?

Governance and place-management – where are best opportunities to support sustainable living through excellent leadership? Research opportunity exists to further explore linked questions of whether such leadership makes a significant difference, (as we found it did in our research sites). If it does, how do planners and other professionals respond now? How could placemakers respond to the need for leadership and coordinating roles in making sustainable living happen, post-occupancy?

Linked research questions that stem from this are to what extent, if at all, do property managers and related organisations (agents, social landlords, private-sector landlords) view themselves as having role to play in promoting sustainable living? What would that role encompass? How would that work on the ground? Again, while our own findings suggest that that the sustainability promotion role is an incredibly important one, it would be helpful to broaden out scale of such research to test this conclusion more widely.

#### Next steps

Briefly I want to say just a few words on our proposed next steps, which are mostly about getting our results 'out there'. Obviously we are sharing results and conclusions here, discussing these, and being challenged, we hope. We are sharing the research summary as hard copies (your pack has a copy), and as a downloadable PDF while the detailed research report can be accessed online and is a downloadable PDF too. We will be writing up Proceedings – and will share those on our website. We are also currently writing peer reviewed articles for academic journals to delve in depth into aspects of the primary data. We also plan to write professional 'applied' briefings. And of course we are very open to your comments, suggestions and ideas. Finally, we hope to do a new round of linked research under the auspices of the Partnership following up on some of the research questions noted here and also possibly focusing on some other aspects of sustainable living of interest to the partnership.

To access the research report summary go to <http://www.uh-sustainable.co.uk/docs/PPP.pdf>

To access the research report see the CSC website <http://www.uh-sustainable.co.uk/docs/PPPfinal.pdf>

If you have ideas for future research on sustainable living we would very much like to hear about them. Please contact

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Dr John McCormack on [j.mccormack@herts.ac.uk](mailto:j.mccormack@herts.ac.uk)

### **3.4. Questions and discussion**

What role do local authorities have vis-à-vis developing sustainable living in master planned communities?

The case studies have highlighted issues around leadership, agency and governance, and it is something of a knee-jerk reaction to look to local authorities to provide leadership in relation to sustainability. However, this is not something that we should embrace uncritically: it may be that civil society organisations (including grassroots organisations, such as the Neighbourhood Watch at the Wixams) are better placed to provide leadership that influences sustainability practices.

How much time have we got? The urgent need to save the planet means that we are tempted towards a search for technocratic solutions, rather than the seemingly more time-consuming process of changing consumerist values and unsustainable practices.

It is indeed tempting to seek a silver bullet that solves the challenge of sustainability for us in a flash. However, the evidence so far suggests that technology alone is not going to surmount the challenge of sustainable living. The more daunting – but necessary – challenge involves questioning, and changing, taken-for-granted social values and practices/lifestyles. This is a multi-faceted challenge that requires a multi-disciplinary approach.

Is it behaviour that needs changing, or attitudes?

Shouldn't we study existing buildings, using an historic analysis to understand how some building designs and structures from the past are sustainable?

What is the role of technology in encouraging sustainable living?

## 4. Perspectives on planning for sustainable living

In Session Three the focus was on varying perspectives on planning for sustainable living: from a developer, a designer and a community representative from the three UK based fieldwork sites. The session was chaired by Dr John McCormack, The UH-Lafarge Tarmac Sustainable Living Scholar.

### 4.1. A developer's perspective on planning for sustainable living

*Mr Pooran Desai, OBE, Bioregional and One Brighton*

We need deep learning as we go along. All the case studies can help but they are no substitute for getting your hands dirty yourself. Creating places lets people lead happy, healthy lives. There are different ways to measure the impact on the planet. The 'planetary boundaries' approach pioneered by the Stockholm Institute is one way. It has nine aspects and on at least four of these we are outside safe limits now, including carbon production and ocean acidification. One Planet Living is becoming not a nicety but a survival strategy. California and China are leading on this as they are noticing how these problems are affecting them – impacts are affecting everyday lives. I expect to see a fundamental shift in the next five-ten years.

This understanding was the starting point for BedZed (sustainable development in south London) created by Bill Dunster and others. Living there has helped people to learn lessons. Architects should live in the buildings they design for at least a year after construction. BedZed has a green transition plan, composting, local food/community farm, and other behavior change aspects. It has reduced car parking, car clubs and they see car free development as the biggest step change needed. The average person at BedZed knows 20 of their neighbours which is four times as many as in an average development.

Having completed BedZed, we used ecological footprinting as the metric, based on One Planet Living requirements. We used to start with zero carbon as the basis for leading happy, healthy lives. We have now flipped that so that through leading happy, healthy lives we can achieve zero carbon etc. You don't solve one problem by creating problems somewhere else. We think the focus should be on developing better rather than thinking there is one 'right' solution or end state. Currently we are developing 'smart capital' including at Bicester Ecotown and at Masdar City. We are involved in designing *Villages Natures* in France. We find that design can be very good but that people can default back to a business as usual approach in the development process.

In OneBrighton we started by thinking about lifestyles, then talked to engineers, then to masterplanners. We raised finance, to develop 172 units with no private car parking, and with a biomass boiler. Engineers/fitters were not familiar with the system so it is not as right as it could be but we are learning how to deal with new technologies. In the latest generation of boilers we are looking at 50% energy cost reductions. We had a formal food strategy including mini allotments on the roof.

We need to understand impacts. In the UK we have a three planets lifestyle: about half of ecological footprinting is carbon footprinting. Buildings' impact is often overrated as part of this. Instead we need to take a holistic look at what causes emissions (transport, consumption etc.).

At OneBrighton we co-funded a One Planet Plan for Brighton and Hove which integrated the developer and municipality in the approach. I come from a health background and from that perspective reducing car use, walking/cycling more will address diabetes: knowing your neighbours protects against depression. Developers and masterplanners are the new front line in health provision. There was a massive sales response to this fear of the future i.e. where are we going to bring up kids that's safe and sustainable? We are creating quality of life – there is a massive latent market that will come to the surface in the next five years.

## **4.2. A designer's perspective on planning for sustainable living**

*Mr Dominic Scott, Masterplanning Partner, Barton Wilmore*

As a design team we often start with a small aspect like energy reduction but building community must be the start of the process. This is not something that can be left for a later date. Most designers want to build places that work for people. There is no point though unless all daily needs are brought together in a coherent whole. It is easy to draw employment uses on a plan but in reality how can you deliver? We need to convince local authorities and buyers that such places can be viable and self-reliant. In a traditional market town specific catchments worked. Having to travel too far to meet needs is a problem. There is increasing talk about how local economy works in a masterplan. It's about community building.

Achieving sustainable development in practice means:

- sustainability must start with 'community'
- self reliance – learning from the past
- community building – an evolving organism
- positive design – concepts and principles

What draws or binds people together? A common set of values, pride in the 'place', facilities that meet daily needs, capacity for both working and living and ease of movement. In achieving self reliance, its worth learning from the past including the traditional market town. Where, instead, you get centralisation, there is a disconnection from 'place'. There is a need to support business and local economy and develop the right training and skills. Community building is an evolving organism that requires a shared vision. Techniques like a community interest company, 'a developer commitment' can work. Before, during and after construction there needs to be ownership and accountability.

Positive design, both concepts and principles, is important. How you deal with water, streets etc. can be seen as a positive constraint. In Spalding, for example, they have developed a new set of canals. The ten key principles for neighbourhoods are:

- quality homes
- integrated food production
- accessible parking
- streets designed as places
- multi-functional green space
- a 'walkable place'
- a neighbourhood centre with a mix of uses
- community collaboration
- accessible employment uses
- transport choice

At the Wixams, Bedfordshire, there is a 'donor' town but the development sits in rural space so it is quite an unusual setting. The project started in 1999 with the master developer, Gallagher Estates, with a total of 4,500 new homes proposed. The site received outline planning permission in 2006 and construction started on site in 2007. There are now multiple housebuilders on site and nearly 1000 units completed to date. A community group was formed by residents in 2010. There is a design code with specific instructions for meeting design principles. Design code approval is required for various aspects. The requirements are modest but well done with elements such as shared surfaces and spaces, lakes and greenways.

The Wixams is about building a community and building a place, and is continuing to evolve. It is designed as four villages (with village three as the town centre). It has one secondary school and three primary schools, employment opportunities, and key facilities to minimise outward vehicular trips. The management of green infrastructure and SUDs systems has been handled by the master developer. There has been delivery of a diversity of uses – employment, sheltered housing etc. There will also be a retirement village.

A new railway station is intended to be built and if you look at this as glass half empty the station hasn't been built but if glass half full, the overall development is pretty good and in fact on delivery of the railway station – it is approved with detailed consent for a £30 million scheme. There is a lot of other green infrastructure and some key facilities provided by the master developer. There are pretty good buses.

It also has good governance. A new Wixams civil parish was created in April 2015, and the first elections are due on 7th May. This is a true example of community engagement. It's a big investment by Gallaghers so why wouldn't they want to look after it?

As a final thought on engagement, we started engaging straight away in developing this place and knew we needed to stage the process as well as starting early. Something for fellow placemakers to remember: it's not about you.

### **4.3. The Good, The Bad and The Ugly: A resident's perspective on sustainable living in masterplanned communities**

*Mr Stephen Knights, Trustee of GUV Community Development Trust, Grand Union Village*

Stephen explained he came to be living at Grand Union Village because he needed a 'squat' in west London. He thought at the time that Grand Union Village had a number of good things about it. It was well positioned, a green area, affordable(ish) with the house purchase price reflecting value for money, was a waterside area with a marina, and meant low fuel costs as it had good direct transport links to the North.

However there was also the bad about Grand Union Village and Stephen summed these up as both about individual buildings and wider facilities. Heat distribution within the building – his house was freezing on the ground floor, ok at the first floor level and too hot on the second floor. There were broken promises from the developer – e.g. what happened to the promised sports centre and cycle lanes? There have been issues with the management of the estate – vague and expensive service charges. The Travel Plan included something of a fiasco over the estate bus route. There have also been problems with parking provision, emergency vehicle access and the previously mentioned absence of cycling lanes.

Also bad has been the lack of community spirit. Stephen wondered if this had something to do with the diversity of tenure (there are multiple housing associations, buy-to-let properties). The management and allocation of social housing properties has led to some issues with anti-social behavior. The low profile of the Community Development Trust has also been an issue as has poor communication and consultation from the developer.

Then there has also been the ugly. Into this category Stephen would put the sense of disrespect – a feeling of abandoning residents after the keys are handed over; and a perception of lack of customer care. His perception of salesmanship – what appeared to be abuse of trust of prospective buyers; with rhetoric not matched by action. There have been issues about private renters who are paying over the odds with landlords seeming to be crowding people into houses. There has also been a lack of interest from housing associations – they have been absent from Community Development Trust meetings; and appear to neglect their housing stock. The relevant local authorities don't appear to talk to each other, making for issues with infrastructure and service provision.

In conclusion, Grand Union Village is a good place to live, but it could be better. There is a significant gap between what has been planned for the estate and what has been delivered. Sustainability is not a big issue for those marketing properties for sale (or, probably, for many of those buying). Sustainability issues on Grand Union Village are linked in with other issues – ownership of stock, management of the estate, and the lifestyle and values of residents.

## **5. What have we learned and where does that take us?**

Session Five was a panel discussion with questions from the floor. The focus was on reviewing what had been learned from the day and thinking about possible next steps in research terms. The panel comprised Mr John Duffield, Mr Pete Halsall, Mr Pooran Desai, Mr Stephen Knights, Dr John McCormack, and Dr Alasdair Jones, and the session was facilitated by Dr Susan Parham.

### **5.1. What have we learned? Where do we go from here? Panel and participant discussion**

Tensions seem to be played out in masterplanned communities and these can be connected to tenure mix. Some of the policy dynamics are to do with buyers who don't live in, or let out their homes. These are structural policy challenges.

There are also significant issues of accountability, post-occupancy. We need to learn from models abroad, e.g. the Netherlands. In addition, there needs to be more of a genuine partnership approach, and less fighting amongst stakeholders.

The Mayor of London has been told. The continued tinkering with the London Plan to accommodate growth has to end.

We funded a One Brighton Plan which demonstrated massive city scale retrofit opportunities. This is something London could use, to extend the kind of actions developed for the London Olympics. We do need systemic change, as technology is changing: renewables are coming in. Cars are no longer a status symbol. China and America will push this agenda. There will be a massive movement in internal markets. 17% returns are starting to look like profiteering.

A big issue underpinning the question of sustainable living in masterplanned communities is that relating to land and land ownership in particular. We need to address the issue of ownership, perhaps looking to Singapore as a potential model. Another issue, in terms of sustainable communities, concerns the social issue of disparities in wealth.

Alongside a lot of new developments in technology we need some new ideas on land value. At a new Garden City event here previously [at Spirella Ballroom] we learnt about community land trusts. That model includes a facility so that interest in land value accrues to the tenant, not the owner of the property, so a massive uprise in land value is not pocketed by someone who disappears. We need new ways of owning land.

The Freiburg approach is a good one.



To support living sustainability it is important that government policy, finance and development control are all working in the same direction. No point in changing one system, as all systems are interlinked.

Of course it is much easier to criticise and say things don't work but it is much harder to build something good. We have to keep going. There are only a few newly developed places that work such as Poundbury. If everyone here could send us a paragraph on their ideas for best steps we could start to capture those thoughts.

I blame the jpeg image. It gives people a false idea about what new developments will be like and what is real. There is also the problem of turning the jpeg image into the real development. This forgets the other aspects of sustainability. Cherwell Council at Bicester has put out 2,000 custom built houses so it is possible to do quality.

Land values are not a problem in places like, say, Liverpool or Middlesbrough. The big problem is the North-South divide. We have a very divided country in development terms but I am optimistic that we have learned lessons we need to apply on a new round of sustainable communities.

Those who design and build should live for a year in their houses. Local boroughs and housing associations should take more responsibility for monitoring and controlling heating and lighting at a district level.

Are we taking forward the lessons? We need to walk a mile in their shoes. Developers should learn from each other.

Why don't we construct a sustainable living contract, with penalties for non-compliance? (We would need to think about the unintended consequences of this.) Developers are riding roughshod over their commitments. We should make it a criminal offence. There could be a sustainable living contract between developers and residents. Universities like UH could do this with all their students.

We developed a Sustainability Action Plan which we wanted to be a S106 but our council said no-one had done this before. That worked beautifully as our joint venture partner then had nowhere to go to avoid that.

It is not uncommon to have legally binding agreements about this. Big ticket items can be covered by this but it is difficult to do what's suggested (sustainable living contract).

That becomes a lot easier if you have a division between property title and land title. You could even measure the energy used and generated. We need to reduce the cost of land.

There are quite a few developments where they have covenants.

I'd hate it to be legally binding that all have to sign up to this.

Could we make this less about compulsion and more about nudging and encouragement? Systemic change is important. We adopted a strategy to look at systems innovation. We took people (the CPRE, Women's Institute etc.) to Europe to look at the 'art of the possible'.

If you could have one systemic intervention what would it be and why? (Financial, consumer, regulatory etc).

For me the crux of the viability model is open book sharing. That is very important. If people could just open that up it would help with the other issues we have. We need much more open discussion. There needs to be greater 'open book' transparency between parties to new developments.

We need new players in the construction industry – more competition.

The education of residents is important to promoting sustainable living practices. There needs to be more stakeholder consultation/discussion in a non-hostile way. More money needs to be made available to train councillors on planning committees in their role. Planning permission could be tied in with high quality, sustainably-designed housing.

A lot of land could be used to develop housing. The problem is planning as it restricts land supply. The average developer pays 30-90% of the house costs in the land. Having to pay increased land value squeezes housing quality. Some German authorities cap land costs to 20% of house costs.

We need to do radical things to the planning system – go back to the beauty of the medieval village.

If we want things we have to pay for them. We need to make the planning system genuinely competitive.

We need to address (and in some cases, address more fully) issues relating to infrastructure. I would like to see people actually build what they promised to build - honour their commitments.

We have talked about housing development/people's behavior but people are locked into unsustainable infrastructures – water, energy, food system etc. Bond markets and crowd funding may offer opportunities for us as sources of finance for infrastructure. Lots of corporates won't survive as returns are unsustainable.

We entered a submission for the Wolfson Prize [to develop a new garden city] and we plugged into criteria for big scale infrastructure items. Where do you put a new market town? We have done searches by county where to put a new town – near

utilities, rail, not on a flood plain. There are a finite number of possibilities – then you enter the world of Hs2 – public resentment/politics.

So this is a big political issue. There needs to be more ‘big’ infrastructure and less nimbyism (which is quite fearsome). The promise to get housing and transport better is hard to keep. Lots of people don't want things to change. We need politics to be reframed around real issues and ordinary people need to be engaged.

## **5.2. Closing remarks and thank you**

Dr Parham drew the session to a close and thanked all the presenters and participants for their excellent contributions to the day. She noted that the Conference Proceedings would be written and access details circulated as quickly as possible and invited everyone to stay on to enjoy a glass of wine and help informally launch the research report.

### **5.00–6.00pm                      Drinks and report launch**

To access/download the research report summary PDF go to <http://www.uh-sustainable.co.uk/docs/PPP.pdf>

To access/download the research report PDF see the CSC website news page <http://www.uh-sustainable.co.uk/>

If you have ideas for future research we would very much like to hear about them. Please contact Dr Susan Parham at [s.parham@herts.ac.uk](mailto:s.parham@herts.ac.uk) or Dr John McCormack on [j.mccormack@herts.ac.uk](mailto:j.mccormack@herts.ac.uk)