Transcript

Sustainable Places: Place Inspired Architecture

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Speakers:

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**STEVE JOHNSON:** Good afternoon everyone. Welcome to the Sustainable Places event series at The Bartlett, the Faculty of the Built Environment here at UCL. I am Steve Johnson, architect and Associate Professor at The Bartlett School of Architecture and I'll be hosting this event. Sustainable Places is a new monthly online event series, led by The Bartlett where we invite leading thinkers in the built environment field to explore all aspects of the climate crisis and how it intersects with the built environment: from sustainability and green design to climate-adapted cities and housing. Today you have joined the March event of the series – thanks for taking your lunchtime to join us - Sustainable Places: Place inspired architecture.

Before we begin, a little housekeeping: This session is captioned live. The event is being recorded. The recording and transcript will be added to The Bartlett, UCL Faculty of the Built Environment YouTube channel and forwarded to registered attendees after the event. The format for today, I'm going to first welcome our guests to present for the first 45mins of the session, and that will be followed by Q&A before ending promptly at 5/10 past 2. We got a bit of a late start today. We encourage you to submit a question for the speakers at any point during this session by clicking on the Q&A function on the bottom of the screen.

A few words about the session, in this Sustainable Places event we'll explore how rural architecture, design and craft can be inspired by their natural environment. We will delve into the UK’s East Sussex woodland to examine Flimwell, a small, historic Doomsday Book stunning village and town. Using the example of Flimwell Park and the Woodland Enterprise Centre as an example, we will discuss what drives a genuine design and crafts culture where the products created are reflective of where they are created.

We have myself, Steve Johnson, Nick Gant, Sal Wilson and Andy Trotman. I would just like to start just by running you through really quickly what it is that we are talking about Flimwell Park. So here are the people who are involved so you get a quick look: Nick Gant co-founder Community 21 Sal Wilson is a technical environmental design tutor at The Bartlett School of Architecture UCL and Andy Trotman who is a collaborator of mine, he's a very talented structural engineer very interested in timber design and construction and he runs his company called Timberwright.

I'm going to run through quite a series of slides here but I'll try to make it as quick as possible

giving an idea of what it is we're talking about. This is a shot of Flimwell Park it's still under construction but before I go into that in too much detail this is where I got interested in sustainable community architecture. Quick shot at what started out as a primary school Summer event and also developed into the Soho Food Festival, which happens every year generates about 25 000 pounds for the local Primary School each summer. Also in Berlin this is a really lovely little event that takes place every summer, a summer school for children in the square right in the heart of Berlin, a wonderful project where children get to design and make buildings and best of all demolish them at the end of a couple of weeks of working. Flimwell park is not far from London, about 60-kilometers southeast of London just off the coast in a little woodland, in an area of outstanding natural beauty right on the border of Kent and East Sussex so there are two projects side by side Flimwell Park which is mixed us and the Woodland Enterprise Center which is mainly a working industrial site. What is Flimwell Park going to be? As I say it's still under construction but we're still developing a plan for the woodland there's a partnership between a private developer and community. People being able to use it will be anybody who wants to visit the place or get involved. Students will study and train there, people will work there and visit and tspend time. When will this be happening, happening now. We are already introducing students from Brighton University, from The Bartlett UCL, Canterbury and other places as well, Greenwich included. It’s meant to be an open place where students and staff can go and make use of this about 22 hectare woodland joined by the Woodland Enterprise Center which is another 24 hectares so together they're quite a large woodland where lots of things are going on. Project Flimwell Park is made up of the local building, a large workshop, for architecture and making, artisan workshops ,hopefully small crafts people and artists will be able to use the workshops, a gallery café where work can be shown. Student housing that's really important that we get people living on the site while they're working they can spend extended periods of time outside London or Brighton Canterbury whatever getting into the middle of the woods with each other is the important part. They're two project cottages for people living and working and we’re building at the moment three houses. What we need to do to make this happen is we need early steps to get a speed reduction along the road to civilize the place. We need the forestry commission to step in and help us remove a lot of rhododendrons which is ongoing but the woodland is still up for grabs we're still clearing cars through the woodland it hasn't been used in about 20 years that's an early idea of the site plan so you can see the 22 hectares of woodland to the West is the Woodland Enterprise Center but we're looking to grow food, fuel and fiber so that's making things out of timber. This is the upper site plan. You can see the workshops to the left, small workshops progressively going along the woodland to the right. Three houses to the right and two houses up top left. This is the big workshop, which is nearly finished, we’re building a greenhouse on the roof, you can see it on this image. These are the small workshops. I’m just giving you a flavour of what we are building. Mostly timber, timber clad made from local timber where we can. Also, a series of timber structural panels which are going into the building which we are currently importing from Estonia. These are the small workshops going up, so there are eight of these and this is the woodland view. What we have got is this combination of developed space and workshop space.

One of the big discussions we are having now - this is the large workshop - and this is the focus of the big discussion going on, which is what can we do within this large space? This sounds a little bit backward, it's not. There is a masterplan behind this. What we have intentionally done is built in some flexibility within the brief and the way the project works so, we have had so far over the last year and a half, we have had about 250 Bartlett students have visited, from day visits to two-day visits to week-long visits. There is a lot going on there. We found that it’s not as easy as we thought. We found that students are not welcomed by the entire universe. When you get students walking around, making a lot of noise we are finding that some of the people who are sharing this space with us get a little bit agitated. So these are the sorts of human things that we're trying to work through as this project is unleashed but this gives an idea of what's going on. We've got foresters, carpenters, furniture makers, all helping students to understand what can be done with the woodland. What happens when you dissect a tree, it can come straight out of the woodland and into projects. This is part of the site where students from the manufacturing department have built an English version of a Japanese kiln, taking clay right from the site and that's going from the clay into the kiln for firing. So far it is working very well. This is the kiln they designed, so this is it being built at Here East in Stratford in East London.

These are students who camped out in tree mounted tents, cooked their own food and made projects including a cinema in the middle of the woodland. These are the sort of fun events that can happen. This is a workshop that we are hoping to build at the bottom of the site where we can get away from the top of the site and students can have a bit more freedom and relax. I think that's enough of introduction to the project.

I will move on to Nick Gant. Nick, would you like to join us?

**NICK GANT:** Hi Steve, I hope you can hear me. So hi everybody, thanks for inviting me

Steve and colleagues today to this event and it's a great honor to share a platform with Steve Andy and Sal as well so I'm Nick Gantt I run a research group at the university of brighton called community 21. I worked in social and sustainable design for about 20 years and we set up community 21 really on the back of the 2010 introduction of the localism bill which was meant to empower all communities in the UK to take advantage of new legislation with teeth to empower them to design and co-design the future of their neighborhoods and communities and another topic for another time to discuss whether that worked or not but really at community 21 we explore the notion of community as a cell as a scale and really as an agent for change and

In the 21st century so next slide please. So yeah we can skip over that one if you

Like that's just my shameless graveyard of logos to try and reassure people that I know what i'm talking about.

So the kind of projects we have undertaken are everything from development of makerspaces to understand space. We have created urban rooms in urban environments to bring in disenfranchised groups in marginalized communities to discuss what the future of their neighborhood might be like through the use of makerspaces. We have created community gardens, we’re just doing a development project with a partner for NHS hospitals to increase patient's access to wildlife whilst they are rehabilitating. Top right there, my partner duncan baker-brown, I was involved in the social house made entirely of waste. Working with the forestry commission looking at retrofitting of social housing use timber right from the doorstep. We have projects that all run side by side. Thank you Steve.

I suppose the prism at what I'm coming at this kind of particular discussion with Steve in the Flimwell project is this notion of making nature for as I say having worked in sustainable design for about 20 years, there has been a frustration in my mind thinking about underlying sustainability, the sort of implicit nature that plants and animals are benefiting from the work that we might do towards sustainability and within the notions of celebrated notions of the circular economy, the key third pillar of the circular economy. This idea of being able to regenerate and rebuild natural systems. My instinct is as I say over time that very little of what we do deals directly with proliferation and benefit of biodiversity, and what we do is mitigating human activity, so the reduction of pollution, waste, emissions, these kind of things which are a byproduct of our own activity and actually very little of this is actually engaging directly with the notion of supporting what has been a biodiversity collapse in my lifetime.

So really the kind of underlying question this is can makers, architects, designers, people who produce things constructively really support biodiversity and ecosystem function as a direct result of their making practices. So I'm trying to turn up the critique a little bit on what has become I think particularly now quite a big rhetoric around the idea that regenerative design and design generally can is sort of heroizing itself a little bit around this idea about the association between what can be achieved by design in relation to supporting nature and I do genuinely worry that we might be accused as a disciplinary area of being of wild washing and perhaps more importantly not really being taken seriously by our colleagues in ecological science and the wider public as a whole. So for me I'm really trying to draw this prism over looking at design through the prism of can it really directly support nature through the activities that we undertake as designers and makers. Thanks Steve.

So here are some examples I've been working for the last couple of years with colleagues around the world in particular with a colleague in Indonesia where we've been mapping maker practices across the range from small medium-sized products up to furniture, spatial and architectural products and really trying to ascertain who might be supporting nature and how through the processes of their interactions with the landscape and their resourcing models so for example on the top left there is an example of a an SME in a small medium enterprise in Indonesia that's digging clay from local sites and through that process they're actually supporting the development of new water infrastructure and water amenities that are being populated by different types of species so there's all kinds of things going on here from the use of homegrown woodlands to create architectural furniture products woodlands that as Steve has already mentioned might not have been managed very well the reintroduction of kelp along the south coast and what that might mean for the production of different resources and so on. So generally speaking we're just trying to again engage with and we've mapped and interviewed about 50 different practices around in in Indonesia and java and in the UK and really trying to understand well what is this relationship between making and the potential benefit to the local environment and in particular nature and biodiversity. Thanks Steve.

So through this process what we've found that we needed to do I mean actually even just asking the question in and of itself has been challenging and when you engage with people who have a very tacit very direct relationship with the environment quite often really reflecting on what is that benefit that is being provided through the making activity or the management of the landscape actually many of our makers were really really hesitant and to some degree unable to really explicitly define that. And through that process we found that initially we're undertaking kind of design ethnographic approaches of interviewing individuals, but we ended up doing drawings, ecosystem drawings, kind of giga maps if you like and also these kind of collages as a way to start to try and draw these associations between the made projects the objects and the wildlife. So this is a piece of furniture by angus ross's who manages an 80 acre woodland as a furniture designer up in Scotland and this this stool is a direct manifestation of the way the woodland is managed and what it leads to in terms of the scale and type of timber that comes out of that word that's primarily geared towards supporting biodiversity and therefore the object and the typology of that stool is actually driven by a set of systems that are there to govern and support nature primarily first of all and therefore this object in a way like I say embodies that kind of relationship through the different types of temperate it uses and how it's produced. On the right-hand side is one of our maps our GIS map on a piece of software I helped develop some years ago that starts to map those different agencies and organizations across Indonesia and the UK. Thanks Steve.

So here's an example of one of these kind of ecosystem drawings. Through the discussions and interviews with makers we use this process really to draw attention to what might be the interactions between nature. As I say some of our makers were are explicitly kind of drawing correlations between what they do and nature in the natural environment but as I say when we got down to the nitty-gritty of it and this is what my research is really hoping to drive forward now we're getting makers and ecologists to work side by side to really understand that relationship. This is an example of a weaver in based in east Sussex who's planting different types of willow into formerly very low-grade farmland which is actually improving the biodiversity of that environment but how we're doing it took a lot of time to kind of tease out and explore and what the opportunities are for managing that land and that practice in the future could be amplified and extended further with support we hope with our research program as it goes ahead. Thanks Steve.

So Flimwell park so I was introduced to Steve some time ago and actually Flimwell park immediately stood out to me as being something of really interesting not in just in relation to its relation to the human community but also to the natural community in which it sits in which it resources its intellectually and conceptually resources its fibers from - trying to remember your three f's there Steve. On the right hand side is one of the quick sketches we did when Steve and I were talking together about this relationship and some of the things that emerge from it so for example as you've seen taking a badly managed or poorly or not at all managed woodland and drawing it back into some kind of woodland management to improve the resilience of that that woodland by changing the monocultures of single species or single age group trees. Taking away the shade and the foliage that overly and forms too many nutrients in the water sources there to improve the water sources and allow space for amphibians and invertebrates to come back and some of the clearing and itself I understand Steve the site actually has examples of meadow lobelia there which are very rare. Again revealing creating space for what were you know dormant species of plant that are very very rare and require very particular habitats to exist and I suppose moreover then zooming out slightly is this notion of the value of the site as an ecology and of itself so thinking about the program has been just not just a human program a program that integrates the lives of other animals and species and just trying to ensure that that relationship can happen and coexist in a really positive way improving the soil. For example in angus ross so I mentioned before and this site potentially one big issue with some of the management of woodland is mitigating against large populations of deer and often are not bringing people into the site is a way of actually keeping the deer away and helping to improve the wildlife. Moreover the management the systems the craft involved in maintaining building and maintaining the buildings in the future could also help to sustain that environment positively for nature. For me it provides a really really interesting case study where we can do further work to explore well what is the ecology of this site through design. Last slide then very briefly if that's all right Steve.

Just overarching back to this notion of community really this is a kind of slide I refer to quite often as a way of really thinking about within the sustainability debate where do we have agency and I suppose it's my belief that you know you can you can make change and you can have a level of potency when you think about the things that you do for yourself and your family. We argue that within the cell of community you also have power you have the influence and the capacity however you think about your community whether it's online whether it's your street or your neighborhood it's probably a felt entity that you could think about its outer reaches and where it starts to have its fringes. We say that within that space actually you do have real potency and agency beyond that for most people that that parent agency drops away very very quickly so it's a really important scale in which to work. Moreover then there's development of things like multi-localism referring to Ezio Manzini and others and this idea that through the internet and through our capabilities now we can open up a network, if you like knots in the net of community, so not growing at scale of the great monolithic companies like the operators but working at a level where we can interact and share information. A lot of our nature makers that we've exploring working that way so people like Steve and others sharing information with people like Andy and Sal to really explore how we actually connect communities together but retain that immediate local meaning and agency which is really really important. Okay I'll leave it there thanks.

**STEVE:** That's great. Thanks, that was a really nice plug for community sustainable architecture. We have Sal coming at this from different angle but equally valid.

**SAL WILSON:** Hi thank you Nick you just set me up perfectly and thank you Steve for having me along today. I'm Sal Wilson I'm a tutor here at the bartlett of environmental design and technical studies. I also teach at the architectural association. I have a background in architecture and environmental design but I'm currently predominantly spending my non-teaching time was a co-founder of a hackney-based community benefit society called HEAL the home energy action lab. Our work is based on the acceleration of a low carbon fabric first retrofit of home so I'm going to go maybe out of the woods and into the city now. if I could have the next slide Steve.

Here we are out on the streets and rooftops I can't don't have time to explain the whole story here but the last two images bottom right are of us up in Birmingham last summer at a phenomenal festival called retrofit reimagined which was co-curated by ACAN, dark matter labs, zero carbon home and civic square. Here we've got bottom right is Emmy Car with Sarah Edmonds who's from ACAN but also my co-founder of heal and then bottom right speaking is myself next to Dave Powers is also a member of HEAL and some other great organizations there from carbon home from Manchester local home retrofit from Glasgow just here to say they're extraordinary few days of inspiring profound holistic dot connecting conversations took place and I just want to briefly introduce you to some of those organizations who are involved and look at how they're working within the community. So next slide please.

so we know in the UK we've got 28 million homes that will need to be retrofitted to reach our legally binding net zero targets by 2050. that number is in fact depressingly ever rising as new homes are continue to go up which will also need to be retrofitted by 2050 so we've got new builds going up that not only are not achieving the mythical net zero but they're far from moving into the regenerative design principles that we're talking about today that we actually need to be adopting in architecture. Our work in retrofit starts very much around carbon carbon carbon reducing energy demand but as you explore the complexities of retrofit it's complicated and it's not easy to get moving. You simultaneously uncover the most extraordinary breadth of possibilities for positive change. Next slide please.

so what I want to say here is that a place-based people-centered community-led approach to retrofitting our cities allows for the potential to protect and enhance our urban ecology and biodiversity, if done without wild washing as Nick says, mitigating the impact on our environment of this eternal growth economic model of build them up knock them down build them up again while simultaneously creating healthy safe affordable homes for all. I was listening the other day to the Birmingham-based architect john Christophers of the zero carbon home I will talk about him later but he described the simultaneous crisis that we're in right now of race inequality climate emergency and fuel poverty and a community-based retrofit contains the clues to start to answer all of these bits of the puzzle simultaneously. So centric lab are a group who do great research based in neuroscience and anthropology. They've carried out an in-depth study relating the EPC ratings of buildings across the UK and mapping them against socioeconomic indicators and guess what the outcome of that research is. Sure enough the lowest income residents are subject to the worst coldest moldiest homes in the worst areas of air pollution, noise and light pollution and 10 000 people die in this country every year as a result of living in a cold home so it's the puzzle we need to stop the impact outwards on our environment while bringing people who've fallen inside below a threshold of a healthy safe equitable life. next slide Steve please.

So with retrofit we generally start talking about adding insulation and double glazing with MVHR and heat pumps but we then get very quickly tangled up in the complexities the complications of a lack of regulatory support for retrofit. There's a lack of skills and training you know the very high risks of low quality work there's lack of understanding and trust amongst the residents and a high level of disruption in their homes the short-term and overly complex government funding programs and a long payback in terms of reduced energy bills. So the model is not easy to progress. If working at scale starts to create economies and capital cost while also facilitating support for training and funding once the scale comes from the street up from a faith group a school community a residence association the conversation starts to get really exciting so working holistically within a neighborhood retrofit means considering landscaping and improving biodiversity incorporating urban agriculture composting and waste initiatives electrifying bike and transport systems so now we're starting to look at bigger improvements of air quality reducing the burden on the sewage system by absorbing and collecting more water on site.

This is just an example from dark matter labs another great research group also another lab - everyone's a lab these days - I think that's not a coincidence we really are at a moment where we need to pause to stop barreling along with business as usual and completely explode the model the new IPCC report has said that louder than ever we've got to go back to the drawing board or the lab. Dark matter labs was started by Indie Johar who started Architecture00 and they do great research looking at the sticky complexities the dark matter is the sort of underbelly beneath the built environment all those issues around insurance and legal systems policy financial models that impact how we work. We at heal are currently working on an evident evidence-based piece of research with dark matter labs and London councils to demonstrate the why’s and hows’ of the community-led approach. So this is just an example of some work that they did exploring trees. For how we support trees in our city and how to not do what the council have done recently in Plymouth by cutting down hundreds of trees by stealth at night. Councils don't like playing paying for trees they are expensive to maintain and to look after but what if we recognize all the benefits of trees in terms of reducing stress mental health and well-being improvements improved air quality local microclimate cooling why wouldn't health insurance companies have a have a reason to start putting money into maintaining our trees if they're a reduced health risks or water companies could start paying to maintain and look after trees if they're helping to absorb water and reduce the runoff into the sewage system which is then leading to overflow into our rivers and our massive water pollution issues we have. So it's this kind of big picture thinking that you tap into once you start thinking retrofit might be the beginning insurance might be the start but you get into this community scale and it's just the positives start to unfold. Next slide please.

There are emerging examples of good community engagement that's council led this is a really interesting example that we're following which is the Becontree estate it's 29 000 home estate in barking where the council has engaged a team called B first which comprises quite a number of architects and ex-architects lots of architects moving into public work at the moment and have always done so but this group are working on a really comprehensive piece of community engagement Archio architects led the development of a retrofit design guide in consultation with the community. It also contained strategies around the urban drainage systems and low emission transport obviously this is a very suburban car-led model so start to think about all the pieces together so we're waiting to see how this gets implemented that's going to be the next step in the game. next slide please Steve.

Then there are some examples of even more profound ground up approach so the Becontree estate is led by the council this is one of our heroes of the retrofit we imagined which is a group called civic square up in Birmingham this is Emmy Car who I mentioned earlier and Charlie Edmonds who is an architect with civic square they're working actually directly with Kate Raworth I don't have time to get into her thesis now but please read donought economics and then read it again. They're working really hard on the street level with a particular street starting with a street called link road in Birmingham on a place-based growth agnostic design approach. They base themselves within the street they're engaged with even the most vulnerable members of the community they can really get door-to-door to establish trust and demystify what can be a confusing and disruptive process in order to progress a really holistic street scale retrofit approach which includes shared solar energy generation and a re-landscaping strategy. I'm giving these examples but there are many others that I that are increasingly others that are thinking in this way that they could have used and then final slide please Steve.

Then there's John Christophers who I mentioned earlier who was another co-host of the retrofit reimagine festival he designed the first zero carbon retrofit this is his home from 2009. Reducing his carbon emissions by 80% while increasing the building footprint. He treats his own home as a lab and an example he welcomes the community in both lay and architectural into his home to learn from throughout the process they came in to learn about the construction methods and he's now established retrofit Balsall heath with through active engagement with existing faith groups and community networks in in the area in Birmingham so retrofit Balsall heath addresses around 4 900 homes about 15 000 people and the plan is to retrofit all of these homes within 10 years with a very strict policy of leaving nobody behind. The thing is here that the communities already exist new groups don't have to be created existing networks can be engaged with and this is what John Christophers and civic square have done such an amazing job of in Birmingham. For example the MECC van this purple van has been for many years driving around the neighborhood helping residents with citizenship applications with job applications ID paperwork they've now trained up five retrofit coordinators who travel around not all at the same time but on this van so you've got a network there that's existing tap into that and use what's already there to spread the message around retrofit and spread understanding. By being a bridge to the council by inviting the council to his home by introducing them to existing groups and demonstrating the benefit to all of working together john's negotiating a space at the table for the community through this process that wider impact can be achieved and the so-called co-benefits dissolve into becoming the actual drivers as we can see the implications of a combined approach which reduces carbon emissions reduces bills improves comfort and health improves air quality relieves the water system enhances biodiversity and local ecology and improves mental health and social cohesion so the models the models exist and architects could and can and should very much place themselves at the heart of this. Thank you.

**STEVE:** Very good, Sal. Thank you for that. That was a really nice display of force and hugely inspiring. Andy?

**ANDY TROTMAN:** Thank you Steve and Sal and Nick great presentations and hopefully leads on something of what I'm going to talk about. I know Steve through collaborating on Flimwell park and other projects as well and I picked up on two things there really from Nick this issue of a direct connection or measurable more obvious connection between making and nature I think is really rather than hopefully to the way we think and try to act and something I believe we need to do a lot more and sales points of really it being a time to take stock of what we're doing and potentially change the way in which we, what is ultimately good but you know sort of slightly older perhaps the way in which we use timber going forward.

I trained from background I trained as a structural engineer but by inclination I'm a carpenter and a land manager if you like. Those were my passions alongside engineering. So almost 20 years ago I set a company to design engineer and make contemporary timber structures. Usually we carry that out alongside small-scale woodland management and realize projects either solely on a small scale or most often in collaboration with architects and other designers. The question here that I've raised and we're trying to act on is you know can a small approach and a small view actually deliver a larger result in this field and others environmentally. We really are trying to work in this way but we also need to do an awful lot more so our priority in all of our work is to specify and use homegrown timber wherever we can. It's not a hundred percent but if there's a way of doing it we certainly will. We also want to explore the more direct relationship of timber use with timber production and the effect that producing those raw materials can have environmentally and socially around us which is you know already come up in the other presentations. This is all seen at the moment against a backdrop of rapidly increasing timber use you know that message is out there and we're using timber and construction which in principle is great as an alternative to more carbon heavy materials but we're now at a point where potentially we're on the cusp of using as much as we have available there's a lead to grow timber and nationally in the UK we are a country with low forest cover of around 13% land area less than half of that is managed and a small part of that about an eighth of that is what's classified as small woodlands which are less than 25 acres and proportionally less still of those are managed because economically it's difficult to do so. That's particular area of interest and the question is whether we can sort of tap into that more particularly on a local level to both improve those places environmentally and yield a timber resource from those as well. In the UK we are 80% net timber importers and in the next 30 years the global demand for timber is set to travel apparently. So you know we are up against it and sort of setting out to do a good thing but you know the material itself has to be sustainable and available for any of this to happen. Next slide please.

So we are blessed in being able to manage an 18-acre ancient woodland called Hamberlin's wood which is in Hertfordshire and in the Chilterns area which is one of the areas in the UK with much greater forest covered by area around 20%. It's what's known as the coppice standards woodland which means long-term timber trees in our case mainly oak are left on a long rotation for income and that's carried out alongside regularcoppicingg of hazel which was historically economic and could be done on about a six year rotation for regular income. So that model itself is not so relevant today the demand forcoppicee products has diminished but nonetheless that creates a woodland which has great diversity because of the age of the trees and the variation in tree cover, light levels and so on something that Nick picked up on. It's not a remote woodland so this 18 acres is very much a small woodland and these are the kind of parcels that we're talking about they're fragmented. This woodland in particularly has been divided by the a41 it's extra urban or semi-rural it's very close to houses on the immediate boundaries and small town settlements nearby. So this isn't remote and historically the Chilterns were managed for woodland products intensively and the furniture and chair making industry in High Wycombe was huge and supported local economy and timber products were also sent into London for both fuel and construction using the canal network. This building here we've been able to build as both the workshop and woodland store and from here we can make within the woodland and use timber from the woodland. The building itself structurally is framed using spruce that was fell within the woodland as part of a forestry commission contract which was over aged around 80 years old milled on site and made on site and the building was completely put together on the side. It's been built in such a way that this is removable as it can be the floor is timber and elevated and suspended over the ground the topography wasn't altered which - it basically stands on stilts and they match the top three of the ground and you know the hope is that this could be removed largely without a trace if need be. Next slide please Steve.

A key part of what we do now or have the potential to do is primary processing of timber both our own on-site to a small degree but more largely local timber we are increasingly looking to buy in small parcels of timber which are non-commercial and not economic to go to larger sawmills. We're developing contacts with local foresters who have the facilities to harvest the timber and bring it to us and with this facility we can add value to that timber they can sell something on as timber locally which otherwise is not economic to transport to larger mill further afield we can take different species and we can take what they deem to be oversized logs which are can be up to 900mm diameter which commercial meals aren't generally interested in they'd rather handle timber half that size. Being able to you know turn timbers into primary products is a key part of the process now. Next slide please Steve.

It should be said on that that you know if we're doing large building projects we still buy in the timber that we need and bought in some specifications so. In no way are we able to self-supply or locally supply all projects but we're really aiming to on more smaller scale projects. The making then is carried out in that lovely environment the workshop within the woodland and is really based around handmade techniques and most often we're using fresh sawn unseasoned timber and traditionally assembling frame but we are very interested in an engineer timber approach and we think about hybrid structures either with other timber products or other materials if that delivers the right solution and also lightweight timber structures as well. It doesn't sort of start and end with green woodworking there should be much more to it than that. Next slide please.

This is actually that workshop in the wood when we were building that. The chunkier framing there that you see below the roof is the spruce that we harvested milled and framed on site and that supports what is actually a very lightweight plywood reciprocal frame roof that forms a barrel vault. This is an example of a hybrid structure the roof uses very little timber, a palette also of readily available plywood and machine-cut so that's very much a modern engineered timber product the roof which sits on something which is heavy and robust and suited the making by timber that we could source on site the lower part of the building. Next slide please Steve.

From here we can make other products and buildings that were commissioned to be involved with. This is an example of a piece of furniture and we do get involved in small scale bespoke things like this. This is oak and it's made green and it's an example of what's called curf? Bending so by using the sawmill in a slightly more creative way this is a single slab of wood that's been partially cut from one end into multiple layers and laminates and then re-woven immediately to create a different structural form. Those sort of explorations are something that I'm very interested in on an artistic level and you're able to explore in furniture applications. It just demonstrates how you know a piece of timber can sort of morph from one thing to another and it's in its form and its structural properties can really be very different dependent on how you convert it and assemble the parts. Next slide piece Steve.

This is a different kind of project there's the Belarusian memorial chapel which we collaborated with Spheron architects and was built in north London in woodside park. It's also a hybrid structure and that was key to delivering the architectural objective. This brings together A douglas fir frame which is unseasoned and traditionally assembled but that supports cross laminated timber panels in order to create this illusion of the walls floating separately to the floor and the roof largely floating separately to the walls. In fact mass timber panels span lengthways along the building between fairly minimal timber frames. In this instance the CLT panels were not available in the UK they may soon become so that they were imported from Spain for this project so again another example of using UK timber where we could but it wasn't able to complete the whole project in that case. Thanks Steve.

A project in Greenwich so more timber being installed in the city a collaboration with studio weave. This is called 33 and it's a publicly accessible sculpture which is temporary and as a result we were able to use again douglas fir without any protection. Its durabilities is adequate for the lifespan of this project which is up to 10 years externally. It's also put together in a reversible fashion and traditionally jointed so this can be demounted, dismantled potentially moved to another site in future. Next slide please.

Finally just to think about what we are trying to do going forward and really feel like we should do more of. Using timber in principle is great but I think we need to be very careful thoughtful and probably frugal about how we do so in future. We want to look far more at the timber species that we are using and the grade of timber that we can utilise effectively and design structures that allow us to do that. To really try and tap more into the local timber resource and this whole idea of trying to get the smaller woodlands managed and you know usable timber coming out of them because we have to respond to the resource that is available. I think that's going to become more and more critical as we go forward. We're very interested in how you know the woodland making connection is expressed and getting you know more passes involved in that both how we do it at the moment. How we'd like to improve that and get more people engaged with it from the public and educationally and you know. See whether this is an idea that that could be transferred and you know developed elsewhere in the country. I mean there is nothing new it has to be said in anything that we're doing here you know it's very much looking backwards and trying to you know think local and work local. To produce a product that's made with resources that are available nearby but it's an element of that that I think we very much need to do more now as we are in the environmental crisis. Thanks.

**STEVE:** Andy thanks very very much for that. Can we get everybody Nick Sal you want to come back on again? We've got a few comments we've got about five a few more minutes maybe than that.

First one a nice compliment from Randini a guest he says I just live around the corner from the Belarusian memorial chapel and I visited many times it's a truly amazing building which is very true it's. It is nice to have somebody in the group who's - it's not an easy schlep to get to that part of London but it's nice to know somebody's out there.

Felicity brown says “more comment and idea regarding trees how to get more from them in private spaces both alive and after felling”, and I think Andy you've done a really good job of trying to demonstrate how we can make better use of the scarce resources that we've got.

The final one was Steven Boxall said to Nick this is he mentions that wild washing is the issue not so much human activity but the neoliberal globalized version of human activity and economics which is spot on Nick you're going to or anybody any comments?

**NICK:** I guess in relation specifically thank you Steve to that question yeah I suppose depending on the specific way in which humans behaved and yeah they may or may not be key to the issue. Neoliberalism globalism of course there are alternative ways to live on the earth which many people do and it's interesting how notions of innovation are presented in relation to indigenous knowledge and so on depending on which context you're in and where you come from and who's presenting. For the specifics of this I suppose the notion of wild washing is more around a concern really about how do we defend an honor and understand really understand our relationship to ecology and the natural systems in which we interact. There's been a huge proliferation recently of exhibitions high profile exhibitions and commentary about design and its association with nature but I guess I want to know you know in relation to say the building that Andy is working on you know do we understand the direct relationship between that building that workshop and the species that have benefited around it and can we come out and clearly say that and really understand that. I think in Andy's case almost certainly yes so. Within the people that we've interviewed and again it's not to poke people in the forehead it's more just asking that question and it was surprising how few of them really had really reflected on that and actually very few if any had actually deployed ecological science in the thinking behind their design interventions. Really what we're trying to do is to just try and raise the profile of that question I suppose to prevent our whole disciplinary area of design very broadly I know that's generalizing being accused of wild washing really of an effect celebrating something that we haven't really got to grips with. I don't think any of the big design agencies in London have an ecologist working there and if not one and in a way it's kind of incredible that that's the case. It's just about really just trying to get to grits with the notion of how do we support that relationship between ecology and understanding of ecology and its relationship to design more clearly and specifically I guess the more generalized ideas about how we live on this earth but if we all lived like Andy then I guess we probably be much better off.

**STEVE:** I think it's really interesting the combination of that comment with what Sal presenting you've got Flimwell park which is very much a rural setting but the sort of work that sales displaying is much more intense it's trying to get community together on a on an urban sense which I is pretty difficult stuff

**SAL:** I think one of the I was talking about existing community networks one of the best urban community networks is often around food production and you know urban gardens there are lots of amazing urban you know communities based around that within the city. I think at the at the bigger scale project you then get into the sort of ecology credits and the sort of evaluation of the biodiversity on site and then demonstrating improvements on that and I don't know if that falls into wild washing or we think that that's being done thoroughly enough. I guess within the kind of domestic scale of community retrofit it can be a little ad hoc depending on who's in the community in terms of ecology, what that community is what that bit of knowledge is and it's all about trying to stitch the pieces together isn't it? There's just a space in the conversation for everybody for architects for ecologists for retrofit coordinators for contractors but you know there's so much kind of we're at such a moment of general kind of upskilling required across the board.

**STEVE:** Helen, just in the remaining time we've got Helen Pivot has just texted just a comment I'm sure there's pretty common but where I am local green woodworkers and Nunhead cemetery mainly wild woodland I've been working together for a long time to manage the wood and providing various species of timber to makers it's a really nice gathering up this whole discussion where woodland has a quite a high propensity to try to get people together. Part of that could be just about that whole thing of taking a natural material from where it stands and turning it into something that is usable. People I think find that quite magical.

Charlie back to what extent do the panelists agree that the conducting that conducting thorough community engagement improves the quality of new homes and communities or do they see it as a hindrance to the urgent need for more housing? This is a really interesting one Charlie because at Flimwell park we've got five houses two of them are meant for people working on the project. Three of them are being sold hopefully to help pay for the project which private family have done on their own backs. So it's an important thing but it means that all of a sudden you lose a bit of control on the direct community of the site. That remains to be seen how what sort of people will buy into these houses. Sal?

**SAL:** I just wanted to add that I think community engagements really important whether it's developing new homes or redeveloping existing homes and that that shouldn't be seen as something which slows down the process it can actually slowing down is actually in a way what we need to do right now. There are a lot of empty homes we're having a lot of homes that are being pulled down demolished and then replace those communities are being driven out they're being bought by foreign investors predominantly and that's not solving the rehousing crisis. So if we just bow along thinking that we need to put up new housing without understanding the community within which it's being built I don't think it solves the problem any faster it kind of often creates a whole host of other problems.

**STEVE:** Okay I think we've hit our time that was very nicely put Sal. I just like to say thank you to Alma for organising this for us and being back there to support this through this whole thing doing these one-off events is a little bit daunting sometimes. I hope it's all gone well and people have got something out of it and I think we're gonna have to let everybody get back to work. Thanks everybody and thanks Nick Andy and Sal and Alma.