

18 JANUARY 2018 ECOTOWNS OR EGOTOWNS?

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I am going to talk about ecotowns, settlements that are being developed or modified specifically to meet various environmental credentials and to minimise their adverse impact on the natural environment, whilst providing high-quality homes, work, resources of various sorts, and social spaces for the people who live in them. In fact, most of the world's population now lives, like many of you here tonight at Barnard's Inn Hall, in urban areas such as London, and that proportion is growing rapidly in almost every country in the world. Of course, our future as a species will unfold largely in urban settings, which is a theme I began to explore last year in a talk on mega-cities. But consequently, working out what makes a town truly eco or sustainable is a very important matter if we wish to survive as a species and to have a satisfactory quality of life. I am going to talk particularly about the UK, but of course, this has relevance internationally. Most of the examples I am going to use tonight come from the UK, but there are one or two others as well, and for those people who listen internationally, I am sure you will see resonances with your own settings.

Over time in the UK, we have made numerous attempts to build this type of eco-settlement. We have trialed the parameters that seem to be important in defining an eco-settlement, really using the inhabitants, effectively, as experimental guinea-pigs, so I want to explore the extent to which we have been successful in identifying what is important. I am going to leave you to draw some of your own conclusions, based on the imagery as we go through the talk. But it is crucial of course that if we are to base our policies, environmental policies and other policies, for the development of settlements on evidence, rather than on hyperbole, fake news, and in some cases, downright lies, it is very important that we have this evidence.

I am also going to perhaps offer an implicit perspective on whether the architectural profession is currently working effectively to this end. Architectural style, as we shall see in a minute, is something which is important, and to be truly sustainable, towns obviously need to be attractive as well as fulfilling places in which to live, but we cannot afford to build towns that are just striking monuments to the architects who designed them or to those who finance and commission their buildings. It is not enough that individual buildings are beautiful, whatever that means, because a collection of beautiful shelters, even shelters with impeccable environmental credentials, is not a sustainable settlement. So, for example, we trumpet that we can build remarkably energy-efficient buildings, zero-carbon buildings even, but if the systems around them do not support the lives of the populations inside them in a wider sense then these buildings and cities cannot be environmentally-friendly, or sustainable. They cannot be ecotowns.

Ecotowns need to incorporate such things as effective and efficient transport systems, access to energy, food, clean water, efficient waste disposal, and work opportunities for those who need them or from those perhaps who we, as a society, require work. Now, looking over the horizon perhaps, even if work disappears largely, in an apparently utopian future where automation and artificial intelligence take away some of the boring and repetitive jobs, and income is redistributed to people according to need rather than efforts or ability, people will still need occupying in some way. They will need shops and schools, or other mechanisms through which to acquire the things they need to sustain them, and they will need to engage with education and group-based leisure activities. If we aspire genuinely to a low-carbon future – and in the UK, we are tied by law to do that through the Climate Change Act – it is likely that these facilities need to be available easily, relatively close at hand to where people live.

So, those are important parameters in determining what an ecotown might be. Many people would also say, for example, that ecotowns need to incorporate green space, not only for biodiversity reasons but to maintain the mental health of residents, particularly children. Ecotowns perhaps also need to accommodate diversity in their populations to include people of all ages, with differing needs, and to provide opportunities for these people to meet and mix and to be entertained. So, we need settlements, if they are to be sustainable, that are equally economically and socially viable, as well as being environmentally-benign.

Before we start to look in more detail at this, I want to take you on a stroll around a small, very traditional English settlement, so that we can inspect and reflect on some of the features of towns that are commonly viewed as attractive to residents. That attraction, as many of you may agree, I suspect, arises largely by the gradual accumulation of buildings over centuries. Now, let us look at some pictures.

Traditional English villages and small towns commonly have public space at their heart, with groups of houses around some sort of monument, often a war memorial in England. Locally-sourced building materials are typically used. Here, we can see stone, stucco, brick, knapped flint and old agricultural buildings may have been redeveloped for residential use. These traditional villages are often lined with houses, often opening directly onto pavements, with small yards behind. They have historical remnants – dovecots, in this case. We get Georgian and Victorian houses intermixed in these settlements – 19th Century villages sometimes included community-managed housing, such as alms-houses for poor, elderly or otherwise needy people. These settlements may include buildings with unusual architectural characteristics, built to fit into odd spaces. There may be shops scattered among the houses. Some buildings with distinctive characteristics, such as some Edwardian style with wrought-iron pillars. Traditional English villages of sufficiently large size usually have one or two shops that meet residents' immediate needs for things like grocery and ironmongery, or indeed confectionary.

The shops here in this settlement are lovely, in every sense. The sign on the right tells us, in the small print, that the shop is a "purveyor of super-lovely things". Public web-postings repeat how lovely the shops are – "Lovely individual shops, a quilters' paradise, a beautiful bead shop, wonderful clothes shops, a Waitrose," – for those internationally, that is an upmarket supermarket – "lovely cafés, bike shops, gift shops, flower shops, along with a lovely garden centre and food shops which specialise in Dorset produce, from olives, wine, chocolates, and of course Dorset Cereals." Some of you are probably beginning to get a little bit ahead of me here in where this is. Again, we have got re-purposed warehouses and industrial premises. Apparently, we have got a lovely arcade where you walk to Waitrose. We have got a butter market, a very traditional British construction of 16th, 17th, 18th Century to accommodate weekly or monthly fairs and markets. Whilst the ravages of time are apparent in some of the buildings –the yellow stucco building here is leaking dye from the brickwork underneath and there is some evidence of rot in some of the woodwork in some of these properties, there are well-appointed buildings, some of which are distinctly strange in this kind of location. So, here, we have got a building with some rather odd pillars at the top, and alongside the Georgian townhouses, we have got Italianate style villas and what appears to be – and there is another one – and what appears to be a French chateau. Now, as I said, some of you may be well ahead of me here. All is not as it seems in this place.

It is Poundbury in Dorset. The dates on some of these buildings give it away. You can possibly just see that one says 2009, as does the crest of the Duchy of Cornwall. It is instigated, or it was, Poundbury, instigated by Charles, the Prince of Wales, in the interests of establishing an environmentally-friendly settlement and promoting traditional vernacular architecture. Planning for this urban village was done by an architect or an urban designer called Leon Krier. Construction began only in the late 1990s. Now, it is something of a filmset, it is very artificial. I think the Prince of Wales' sincerity cannot be doubted, and he has obviously continued to push forward his views on architecture and ecology over the last 30 years, very energetically. But this is a big experiment, with some 3,000 residents. Poundbury is effectively a suburb of Dorchester, which has a population of about 20,000, rather perhaps than an ecotown in its own right. It has attracted both plaudits and criticism. One architectural reviewer described it as "fake, heartless, authoritarian, and grimly cute". Being rather more critical of the residents, another, again architectural, reviewer characterised it as "an over-sanitised middle-class ghetto that has a whiff of resignation that there is nothing positive to live for, so we must retreat to the past". As I said, in places, it smacks of a movie-set, with little behind the frontages. Perhaps, therefore, this is not an

ecotown, but an egotown, resulting from a prominent person's desire to shape the landscape in his own way and the architect's intentions of leaving a legacy of memorable, if rather strange, buildings.

Having said that, it certainly does have some of the characteristics that seem desirable for an ecotown. It has a school, which is in very modern buildings, not unlike a school I think you would see anywhere else. It has jobs, some jobs within walking distance of the housing. I do not know how many people are employed making breakfast cereal, but presumably some local people. It has accommodation for senior citizens. I do think this image, if you see there, it says "Apartments for the over-70s – hurry, selling fast" I think it looks rather like a car-park for the elderly. I do not know what you think, but multi-storey car-park for the elderly. A third of the houses are for rent, and there is public transport. I do not know how frequent it is. It is run by electric buses to nearby Dorchester and Weymouth. Nothing came while I was standing there, but there is a bus service, and there are restaurants and cafés. There is a lovely supermarket, apparently, with a lot of parking in the centre of town.

Roads are not all demarcated for cars, and that is supposed to encourage reduced speeds, and there is provision for cyclists. The number of garages is interesting too. It seemed to me relatively small, walking round - I did not do a numerical analysis – but there are lots of yards and car-ports for parking. The disadvantage – obviously, the intention is to remove both the need and the aspiration to drive. In fact, it is apparent from the Census, from various local authority statistics, that car ownership is higher amongst Poundbury residents than the regional norm, which is perhaps rather unfortunate, given the aspiration. But this is an affluent place. It is an affluent and rather elderly place, according to the data that is held by the local authority. Housing is relatively densely placed. It is about 15 or 20 houses to the acre. Most of them do not have significant garden space, but the countryside is accessible, at least now, when this is at a size of 3,000 or so residents. The variety of architectural styles and rather chaotic street layout are almost bewildering, and that is a characteristic too of an organically-grown settlement, but despite that, despite some of these positive attributes, as you see from the sign here, the road-sign, which has been carefully amended by somebody on the way into Poundbury to remove the "Poundbury" notice and put "Ugly Buildings", not everybody likes it.

It is quite difficult to find out what residents think because residents have an interest in saying this is a lovely place to live, particularly if they are trying to move out. But I would say, if you look on TripAdvisor, which obviously reflects, largely, the interests of visitors, support is rather muted. You can see there, just on the left-hand side of the screen, that, on average, it is "average", and if you look at the commentary, there is quite a lot of very negative comment, particularly from young people, saying there is nothing to do here. Now, I have to say, the village where I have, there is similarly lots of negative comment from young people saying there is nothing to do here either, as I say, it has not been universally welcomed.

Architectural quality, of course, is a matter of individual judgement. Buildings may be beautiful in the eyes of their beholders, and of course, attractiveness can also be generated from the way in which buildings function. If you have a building which has an intrinsically low environmental impact, that might be regarded as stunning just in its own right, regardless of what it looked like.

This is a building in Vienna. It is the Vienna Museum of Art, sitting amongst the traditional red roofs. It has impeccable environmental credentials. In fact, so strange is its appearance, somebody described it as "a giant slug". Those are solar panels on the top of it, by the way. So strange is its appearance that I checked it on Google Earth before including it in the lecture. I did not take the photograph myself, and I thought it might be an example of an elaborate hoax or some fake news, but it is, apparently, real, and there you can see it on Google Earth. And some people think it is beautiful. So, architectural qualities are in the eye of the beholder.

This is a building in Mumbai, in India. Again, great environmental credentials, good energy efficiency, access to green space, and so on. I am not sure about whether it is a beautiful building or not. Architects say that it is.

Closer to home, here we see some buildings being constructed in Hemel Hempstead, a set of apartments that are apparently "a beacon of sustainable luxury", whatever that is – it might be an oxymoron. Beacon, of course, is the developer of this building. It has all the latest environmentally-friendly technology. It has windows that

darken automatically. The structure is carbon-neutral, at least as far as its day-to-day operation goes, so the blurb says.

The point here is that environmental – individual buildings incorporating the latest environmentally-friendly technology do not necessarily make for a settlement that is sustainable overall. You can, of course, reach your own conclusions on whether you would like to live in any of these settlements or around the buildings in Mumbai and Vienna.

Technology can be deployed in some very strange ways. Green-roofs, for example, often cited as an intrinsic necessity for an ecotown, they take up the rainwater, reduce the runoff of rainwater, encourage infiltration and carbon uptake by plants. These are sedges, I think, on this image, which is in Scandinavia somewhere. They can be very significant in eco-design, but not all green-roofs are genuinely adding to sustainability. This is a great one. This is a tiny green-roof over a petrol-pump in Malmo in Sweden. So, I have got mixed views about that and whether that is a legitimate part of an ecotown.

Really good environmental technologies, apparently, generate unforeseen side-effects. This is a system – I do not know if any of you have seen this – this is a system called Envac, which is a waste removal system. It has been trialed, it was trialed in Hammarby in Sweden, where the inlets to this thing are put inside apartments, as well as outside in litter bins, and it is being trialed in Wembley, in London. I have not seen it and I do not know if anybody here has seen it, but what happens is the waste is sucked away into underground sorting systems. You can see part of the network there, on the left of the image, and there is a very complex set of networks under the streets, where the waste just gets – you can see a bag of waste there just getting sucked along. It is very stylish, it looks very technologically-advanced, but of course it does require very significant energy to operate it, and it does seem to reduce littering but at the expense of carbon emissions. So, not all environmental technology is either appropriate for an ecotown or, indeed, for anything else that might be regarded as being environmentally friendly. If, of course, you could power this from solar or renewables of some sort, you might be in a different ballgame, but now, that is not the case in Wembley.

Other approaches to eco-settlements eschew technology almost altogether. This is somewhere in Pembrokeshire. The photograph was taken in 2011. It looks rather like a hobbit house, I think. It is a lowemissions and low-impact settlement, no mains power, no water, no waste collection, and built using local materials, all of which would seem to be very environmentally-friendly. It is got wood, cob, earth, turf roof, wool insulation and so on, and 75% of resource is generated on-site. There is a picture of the residents there in the image on the right. The problem with it of course is that, when these things were built, it nicely demonstrated one of the main issues around ecotowns and villages, and that is that there can be tension between national policy - we want to house people and we want to house people in an environmentally-friendly way, with good quality housing and so on - but, locally, there may be objections, and of course, in this case, there were cited objections [and/of] a number of breaches of the planning guidance. The one I liked particularly was the fire hazards because one of the houses had an open-fire under the bath, and presumably, you would have to be careful before you dropped the baby into it that you are not dropping it into boiling water, or perhaps they are so cold anyway that that does not arise. Outside composting toilets, which are not part of national guidelines on settlements these day, and they used unspecified but recyclable materials and could not demonstrate where they had come from in every case. In fact, retrospectively, these settlements were given planning permission, and perhaps, you know, if we look at them, those conform to some people's idea of what an ecologically-benign settlement might look like, but of course begs the question of whether you would like to live in one. I am not sure I would. It is a bit open-plan I think inside for my taste. So, that tension then between national policy and local implementation.

This is the Tread Lightly Ecovillage proposal in the Cotswolds, put in by a design studio. It has not been built, as far as I know, but it was supposedly a Code-6 village. Code-6 refers to its impeccable environmental credentials in relation to energy-efficiency. As it says here, it will employ "state of the art, zero-carbon systems to power and heat itself", and it talks about community being created through the design, "encouraging interaction of people, places and activity". If you look very carefully, you can see there is a group in the bottom right-hand corner swimming together. I think fun is important, of course, and the designer has said the lakes will

take on the Tread Lightly identity and the lakes will shape the village's footprint. It concerns me rather that a minor change in the hydrological balance, for example in relation to climate change, might produce the swimming in the living room rather than outside in the pool, but that is a different form of ecovillage, clearly. I do not actually like it. I think the design is rather ugly, and I think the layout is absolutely appalling – some buildings there that look onto the back of other people's properties. So, it is not very exciting, not very interesting, and I think probably not very clever.

In terms of genuine attempts and urgent attempts to do it, many of you will be aware of the very serious earthquakes in Christchurch in New Zealand a few years ago, and so they were faced with real questions about how to rebuild very large areas of the city in an environmentally-friendly way, and this is the kind of thing that they were looking at. One of the things which became important to them when they were doing this, because of the experience of the earthquake, was that their ecotown which they wanted to do had to be a food-resilient town, in which case, they started to incorporate into the design opportunities for growing food within the city boundaries, and you can see there some raised beds for vegetables and some greenhouses and so on.

Now, I will just show you a little video here about a London eco-community.

[Video plays]

We are consuming resources much faster than the planet can regenerate them, so we are going to have to look at living in ways which mean we use these resources much more efficiently, and we have an increasingly urbanised population consuming more, so these are some of the problems that we are going to have to face up to in the next few years.

If we are going to build new homes, they are going to be there for 50 years or more, and so we need to set things up sustainably now so that we're being resource-efficient for the future, and it is not just about the environment, it is about saving money and it is about a better quality of life.

The way people live in most ordinary homes is actually quite unsustainable. They have homes which consume a lot of energy. It is not easy for them to live without a car. It is not easy necessarily for them to recycle.

So, at BedZED, we have tried to make the green choice the easy choice. We have got very energy-efficient homes, so you just live in them as a normal home, but your carbon footprint is reduced.

Although we thought you have got to save energy in the buildings, it was as much about the choices and the decisions we make every day - choosing to walk to the shops instead of jumping in the car, using renewable energy. It is just about not being wasteful. When we started working on BedZED back in 1997, sustainability was much more of an enthusiast, fringe activity, and now it is really mainstream – everybody understands their carbon footprint and knows they need to do something about it.

When we started this project, it was unusual. So, for example, this was the first zero-carbon development proposed in the UK, but now, in fact, it has become government policy, and large numbers of companies now are starting to look at all sorts of green technologies. Governments are looking at policies which will support this sort of development.

Sometimes, you hear what ministers say and you have to almost pinch yourself, which is fantastic. I think what we need to do now is really deliver in scale though. You know, there is lots of talk, lots of policies. What we have really got to do now is really tackle this mainstream.

That short video is about a community housing scheme called BedZED in London and I think it illustrates some of the aspirations of ecotowns very nicely. The project, as you will have seen on there from the text on the screen, was initiated by an organisation called Bioregional, about 20 years ago, developed in partnership with a charity, the Peabody Trust, and designed with architects called Zedfactory, who are also part of the BedZED group, and Arup Engineers. Now, Peabody, interestingly, is one of the largest and longest-established providers of social housing in London, and the accommodation in this settlement is very mixed, ranging from one-bedroom apartments to four-bedroomed houses. Half were sold on the open market, a quarter were reserved

for social or low-cost rent by Peabody, and the remaining quarter were for shared-ownership, which, at the time, was said to be a lower cost way of buying a house. That might be a bit more debatable but, at least in the first instance, it is a lower-cost way of buying a house. So, it looks attractive, and some of the indicators from this development are very positive. So, here, on the slide, some of those indicators... BedZED residents know a lot of their neighbours. There are things there about being inclusive, about the wealth of residents. Water consumption is only about 50% of the London average. Half of the construction materials came reasonably locally. It has got an on-site car-club and BedZED produces – said on here, it says zero-carbon, but it is actually 37% less carbon dioxide emissions from gas and electricity than an average development of the same size and mix of uses. Now, when this was produced, this diagram, that last point in particularly, 37% was pretty good. Today, that is nowhere near enough to hit the current targets. Setting aside the water issue, the water system that they use has been very, very unsuccessful and difficult to manage. It has had all sorts of technical problems. But even bearing that in mind, this is not actually an ecotown. People travel out, by car or by other mechanisms, to work elsewhere in London, for the most part. Also, as I said, in relation to the carbon dioxide, the criteria for eco status have tightened somewhat since this was developed.

Summarising where we are today, in general terms, with ecotown concepts, these settlements are intended, as it said in the video, to push residents towards environmental impact, with reduced energy and water use and waste generation, by design. One of the people in that video said we make it easy for people to do this. Community-related elements are seen as important – knowledge of neighbours and so on, and the mental and physical health of the residents, so walking, cycling and so on. Today, those settlements, these ecotowns, are also seen as having a stimulating role as exemplars for other kinds of housing areas.

I want to switch to look at the last couple of decades or so. Ecotown concepts...these are the sort of things that I have been talking about. What I have not picked up in here is the example settlements. These settlements are intended to inspire other developments.

Ecotowns have a very long history in the UK, from the early attempts of philanthropists and industrialists to accommodate their workforces in what were at least acceptable housing, in places like Port Sunlight, to other experimental settlements, such at Letchworth Garden City.

Here, we have got Letchworth Garden City. Some of you will be familiar with it, started in the early-1900s by Ebenezer Howard, and it has a population today of about 34,000 people. You can see, it is a garden city, but at that time, in the early 1900s, "garden" was synonymous with "eco". So, it is designed to be self-contained. It was a very low density of housing, a lot of green space, and self-contained in terms of resources, such as water and power, and community-focused within a constraining area of countryside where food could be grown and brought into the town. Not every house – despite the fact this is called a garden city, not every house had a garden. There was some industry. There were jobs. There was a railway that could take people elsewhere to work because, obviously, at this time, at the time it was planned, cars were not common. The housing was generally relatively inexpensive. Notably, in terms of entertainment and social activities - you may know the story about Letchworth – there was one pub, but it was not permitted to sell alcohol, in the interests of maintaining the good status of the residents.

Many of the main features of British urban design in the 20th Century owe their origins to Letchworth Garden City, and it has been described as "a social experiment on a par with the Welfare State, a social experiment that affected us all and still does", according to one commentator. It was followed by a raft of other developments, including the well-known British New Towns of the 1940s and 1950s, which had similar sorts of aspirations and experimented with architecture, social structure and degrees of self-containedness, particularly as car-ownership was growing rapidly and towns began to sprawl out into the countryside. Now, there is not time today to discuss the various aspirations towards this utopian living. Opinion of their successes has waxed and waned.

But I want to switch to around about 2007, when the term "ecotown" first really started to be used. This more recent story starts under a Labour Government, with the Environment Secretary, John Prescott, who began to suggest an approach to new housing development that seemed likely to be widely welcomed by the public. Now, you may draw political conclusions from this as we go through. It was picked up in May 2007 by Gordon

Brown, who, just in the run-up to the election to be leader of the Labour Party and hence Prime Minister, he announced that it was the Government's intention to commission five ecotowns, totalling about 100,000 homes, and he was inspired by developments at Hammarby in Sweden.

The Hammarby model was really a model about how to develop towns in an environmentally-friendly way by lots of recycling and re-use of resources, so things like fuels and energy, energy from waste, minimising water, recovering nutrients from water, and so on, so lots of things on here, including those Envac systems that I showed in an earlier slide, and deep green settlements. But this is all about the physical nature of the environment. It is not very much about the social elements of the environment, that came later, but we have got biogas-fuelled vehicles and so on. So, this was an experiment done in Sweden.

Gordon Brown seemed to be particularly taken by that, and these principles, as I have said, related to the way the environment was managed in a circular fashion, were picked up widely in the press. In fact, some of the construction at Hammarby was subsequently revealed not to be ideal, and one of the things that has come to light recently is that there was widespread use of plastic-cladding on buildings, a technique, obviously, that has had disastrous repercussions at Grenfell Towers in London recently, and it is very widely-used in Hammarby. But what was said by commentators at the time was that these ecotowns were being suggested because the Government of the day's intention was to support a home-owning, asset-owning, wealth-owning democracy, so a political reason for suggesting these, and the thought was that these would be very, very popular with the public, and, indeed, in 2007, in July, a document entitled "Homes for the Future" was published, and by September of 2007 – this is all happening very quickly - on a tide of enthusiasm, the number of suggested towns had been doubled from five to 10, with one in each region. I think there are 10 on here. So that was 2007.

In fact, what happened subsequently was 57 proposals were submitted by a variety of people for consideration. A cynical view would say these were a dog's breakfast. Some of them were principally rejected housing estate schemes with a greenwash over it, saying, well, these are really nice, "everybody's got a garden", or whatever. Some of them had been rejected as planning applications previously. They had all sorts of different architecture, all sorts of different principles behind them, broadly, allegedly, environmentally-friendly. As I say, the number that was going to be approved went from five to ten, and then it went to fifteen, and then to twelve, and finally, it went back to four, in fact.

I have just put this image up just to remind us – and we will see several images like this – in fact, far from prompting widespread public acclaim, it prompted widespread public outrage, including something for Shrewsbury – that was a bit later. But there was widespread outrage. People did not like them at all. They did not want ecotowns, or indeed any other kinds of towns, in their areas, even though these had, allegedly, good credentials. The proposals were met with a barrage of disinformation. I just want to read you one of the things that was said about them. People talked about them swamping rural villages, generating massive traffic flows, loss of the greenbelt, damaging wildlife, risk of commuter settlements, and that they would skew investment away from refurbishing inner cities and redesigning inner cities. The planners liked them, actually, the planners liked them very much. Architects liked them very much. Particularly, one of the planning organisations, or a spokesman from one of the planning organisations, talked about the opposition that emerged to these things, describing it as "a tide of bile, nostalgia, disinformation, selfishness, paranoia, and smear tactics to cast doubt on the plans". So, a lot of differences of opinion here...

This largely emerged and escalated when the actual locations of some of these ecotowns were announced. Now, interestingly here, you see Scotland has disappeared altogether from the proposals. Originally, there was a proposal to have an ecotown in every region, as a kind of demonstration, but, as I say, in this instance, Scotland, the Scottish proposal, at Cardenden in Fife, disappeared, and in fact, the proposals changed. There was a bewildering set of changes in the proposals, absolutely impossible to follow. I tried to do a series of maps showing what had come and gone – it is impossible. In the middle of this, some planning policy was issued, and, to compound the problem, the standards that were required by these settlements, in terms of the percentage of open space and the percentage of affordable housing and so on, kept being adjusted, and, in the middle of this sequence of course, well, a little later on from here, there was a change of government as well. Generally, what was happening is there was a move away from saying that ecotowns are just about recycling towards a position

that said this is much more about social aspects, such as jobs, and you can see why this happened – in 2008, in the middle of this, we had the economic crash, so a lot of concern about jobs.

This is to Ford. Ford is near the South Coast, in this diagram. We have got Ford objectors here saying, "No to an Ecotown – it's an Eco-Conl" and "A Good Time to Listen, Gordon". There is a word blocked out on that – I was curious as to what it might have been, but, anyway, I cannot tell, but "A Good Time to Listen".

There is another round of proposed sites being announced here. I cannot remember what date this was, and another round of objections. It is Fradley this time – I cannot remember where Fradley is, but "Fradley against Curborough Town". So, this is local residents objecting about a proposal that is near to them, of course – "Say No to Ecotowns".

What we ended up with in about 2010, or 2009, was actually only four proposals going through, and one of them was North-West Bicester, which is not actually on any of the previous submissions, and the one in the South-West, in Cornwall, the China Clay Community, which was on some of the previous maps there, it is called the Imerys China Clay Community, because the land was all owned by Imerys, and so they were wanting to increase the value of their landholding.

There is another set of objections there from Marston Vale – "Farming, Not Fabrication, for Marston Vale". Marston Vale is a greenfield site, as were many of the other sites.

So, there is the four that were left. Let us just have a look at the Imerys one. These are just images taken from Google Earth. So, you can see here what we are dealing with. We are dealing with several sites in an area that has been severely environmentally-damaged by china clay mining near St Austell. In fact, it is not an ecotown at all. It is five different housing estates around a hole in the ground, uncharitably. The total number of houses is very small. There is no way any of those could be a self-contained community, and they would put, obviously, traffic demands on the region, a region which is, in the summer most particularly, very, very busy. Looking more recently, it changed. By 2013, most of the sites had been dropped, but they are now proposing to build 1,500 homes at Penwithick, which is one of the sites that was on the site in the centre of the previous diagram. The others seem to have disappeared and there is just this one, this one proposal, which would include a primary school, a technical park, solar farms, and recreational areas, okay, so it is not just about recycling, there is some token given to some of the criteria for ecotowns.

Here is another one, Bicester, again, not part of the original proposals, in Oxfordshire. The first proposal, it says in here, was in 2009. It is not on most of the early maps at all. Bicester is an interesting one too because, any of you that know anything about Bicester, those of you that travel regularly in and out of Marylebone, as I do, will know what Bicester is famous for, and it is not ecology or environmental-friendliness, it is consumerism. If you have seen the nice people in those lovely little jackets standing in pill-box hats encouraging you onto trains to go shopping at the Bicester Shopping Village, that is what Bicester is about. So, there is North-West Bicester in 2009, but it is happening, and Bicester there, in the top-right of the image, the fields there, this is the North-West Bicester Ecotown in 2017. You can see it has started to be constructed. There is a school in the middle of the construction site there, housing emerging and so on.

What then do we learn from this sequence of changes and this recent history of ecotowns? Well, what we learn about is about competing influences. I have only put three in here on this Venn diagram. I think we have got an oscillation of opinion going on here about what is important. We have got three things I have identified here: the quality of life of the incoming population, which could be whether they have a job, whether they have a garden, what their house is like, how much it costs and so on; we have got issues to do with the retention of the countryside and farmland and ecological values – I am broadly putting that into a green circle there; and we have got architects pressing issues to do with the visual attraction of the buildings and the design concepts and so on, perhaps, as I said, a backdrop of individual hubris there for the people involved. The whole thing has a backdrop which is about national politics, about location-specific influences, about the state of the economy, about local politics, and about the profit from the land value increases and the construction activities. Those are the backdrop, and within that, we have lots of changes going on in attitudes. We have changes in the attitudes to

jobs, for example. So, at the beginning, when we first looked in2007, jobs were not really on the agenda at all. It was issues about quality of life, in a physical sense, in terms of housing and so on, and meeting housing needs. Now, it is much more about social aspects and so on.

So, we have got competing influences then, things playing out on a national stage, and this competition between national policy and local interpretation, where, nationally, there is seen to be a very important need for housing, environmentally-friendly housing would be good, thought to be popular, and then locally, where people do not want it, of course, whether it is environmentally-friendly or not, or at least so it appears from the objections. We have very little information that confirms any of this opinion, and I think this is an interesting one.

Some of you may have guessed that I would talk briefly about wicked problems, but if you are not familiar with the terminology here, wicked problems are problems which are characterised by several different qualities. We have, in terms of accommodation and ecotowns, a wicked problem. We have a very poorly-formulated and complex problem, with physical and human and sociological dimensions and so on, where, if we do something somewhere, it has an impact on somewhere else, at another time, later or in another village and so on, many different stakeholders, we do not agree about what is important, we use the terminology in different ways, and we do not know if the problem – if we ever get there, has the problem been solved? Is Bicester, for example, going to be a proper ecotown? We just do not because we would not know if we got there, I suspect, if it was finished, if it ever is finished. In fact, there is probably no prospect of an end to it.

We also, in addition to talking about wicked problems - again, some of you will have come across this – there is now a new language here being used by researchers, about super-wicked problems, where time is running out and we do really have a pressing need for new accommodation, new homes for people in this country, where those, as it says here, "Those who cause the problem also seek to provide a solution," and the central authority needed to address the problem is weak or non-existent, or, in this case, divided, I think, between national and local interests, and people are taking policy decisions with very short-term time horizons. They are not thinking about the long-term. They are thinking, "Will this keep in Government?" or "Will this keep me in the public eye locally?" for example.

If we go back to Ebenezer Howard's garden city, he said this is compact, this is constrained. In fact, the density, the housing density, is very low, and we have got farmland all around it, a belt of land, he described it as, which, subsequently, we began to use the word "greenbelt" – it was incorporated into legislation and so on. But he said it is compact, and compact is good. Compact restricts your town, leaves the countryside untouched. He had not perhaps foreseen the advent of the motorcar. But there are other views on this, of course. Another view says, well, if we build towns that have lots of greenspace within them, they wo not be compact, but people will have access to this greenspace, and that may be important for mental health of residents. Now, we do not actually have very much information at all about whether the presence of greenspace impacts on people's mental health. It is not clear at all from the research. There is very little research, but it is commonly cited.

So, we have got these super-wicked problems. The characteristics of tackling wicked problems, or what is said to be important in tackling wicked problems is that there is plenty of dialogue, and certainly, in terms of key concepts in ecotown design today, as well as all those issues to do with natural capital and valuing greenspace and using space for multiple purposes, like having playgrounds which can provide floodwater storage and so on, the bottom but one of those points there is about collaborative and holistic planning, drawing on local community views. That is going to be very difficult, is it not, particularly since many of these proposals are led entirely these days from the private sector, almost entirely from the private sector.

This is just my concluding example. I live near Stratford-Upon-Avon myself, nowhere near where this is going to be, but this is the proposal at Long Marston in Stratford, near Stratford-Upon-Avon. So, you have got Stratford-Upon-Avon in the top-right of the map there, and Long Marston Airfield it was towards the centre of the image. This is a proposal which popped up around 2009 and it has been coming and going ever since, but what has happened recently is, in 2015, the Government dropped its proposals for ecotowns, almost altogether, but by 2017, we are back with something called Garden Villages, and this has been put forward in 2017 as a Garden Village, which has, again, different kinds of non-evidence-based environmental characteristics. If you

read the brochure for it, it's: "3,500 new homes within parkland and wooded glades" - this is not a compact settlement, this is quite a widely spread settlement – "...designed with Garden City principles." We are back to Ebenezer Howard. There is a map here showing you what it looks like. It looks remarkably like some of the early maps of Garden Cities, with that central green area – think of my Poundbury picture – and these green lanes going out, so you can walk out to the countryside. It has a footpath to get to town, or a cycleway. It has all sorts of wildlife attributes, according to the diagram, or will have, and will have a secondary school and a primary school. This is not housing on there because it has not been built yet, it has only just been proposed, but this is the kind of housing that has being looked at: as you see, low-density, with gardens, and other characteristics - local shops and services, three new schools, sports provisions, roads, greenways, buses, rail, potentially, and green infrastructure, so sustainable drainage to stop flooding and so on, landscaped streets, and homes with family gardens. t looks very, very attractive when you read the prospectus. Would you like to offer an opinion on what the local people think of it?

Despite the benefits, 465 jobs, apparently, 30 million residents would spend within the local area, creating 438 operational jobs, so a lot of money, and another 1,900 jobs indirectly, this, as in all the recent proposals - Ten Garden Towns and fourteen villages, in the latest proposals, mostly in greenfield sites – and, you see that figure there, in the middle, 35 million bonus payments to the local authorities. This is a subsidy from Central Government to local authorities to encourage them to have ecotowns and ecovillages. So, there is a lot of money going on here.

There is a wonderfully-named local pressure group in this area. The acronym is BARD. It is called the Better Accessible Responsible Development group, BARD. So incensed were they by the proposals back in 2010 that they threatened to take – they tried to get a judicial review of the way the decisions were being made, on the basis that the community had not been involved. They failed and were faced with paying the costs of Government in having precipitated that investigation. But BARD's view on this is, as you see here, "Stop the New Ecotown".

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