How do Resources Impact our Ability to Think About the Future?

Noura Al Sayeh

As an architect and practitioner in the urban sphere living in Bahrain, an island nation a few kilometres away from one of the largest oil reserves in the world, one would think that the question of how resources impact our ability to think about the future of our cities would be more present in the daily interactions and reflections of those with whom I come into contact. The reality is that in Bahrain, as in most places in the world, we are almost completely oblivious to the impact of energy on our urban development and its interconnectedness with all the other aspects of our contemporary society. As the moderator of the Future City panel about natural resources, I was therefore very curious not only about how we are impacted by our reliance on oil and how that affects our sense of the future, but also about what and how we might be able to change.

Imre Szeman, Research Chair in Cultural Studies at the University of Alberta, Canada, has been researching what he has called 'petrocultures' for many years, and argues persuasively that our first challenge is to think of cities not just as valuable spaces of experience or aesthetic landscapes but as enormously complex infrastructural systems based on property and energy that can nonetheless be evaluated in order to be modified. In an article entitled 'Oil Futures', Szeman argues that there are three dominant social narratives concerning oil's future, its relationship to capitalism and a possible move towards sustainable energies, which he describes as strategic realism, techno-utopianism and eco-apocalypse. Strategic realism 'views contemporary geopolitical maneuvering as the inevitable outcome of competition for access to goods and resources: chief amongst these being access to oil'. Techno-utopianism believes that the exhaustion of oil supplies will be solved through science and technology, while the eco-apocalypse 'understands that fundamental social and political change is essential to address the end of oil'. Szeman maintains that while the first two narratives of strategic realism and techno-utopianism 'remain committed to capitalism and treat the future as one in which change will occur because it has to occur', eco-apocalyptic theorists do not offer any alternatives to face the coming disaster and take the view that 'nothing can be done to stop it', although they tend to better understand its scale. The eco-apocalyptical discourse of the last ten years has at least succeeded in raising awareness of, and predicting the unsustainable nature of, our economic, social, political and urban addiction to cheap oil, even if it has done little in terms of providing alternative solutions.

Until now, the social cost of our reliance on oil as a cheap resource has not been factored into our economic and financial systems; nor does it seem likely that it will be, even (or perhaps especially) in countries such as Bahrain where oil reserves have in effect already been substantially depleted. For all the talk about the incredible speed of change that technology brings, it is almost shocking to think how slow our urban infrastructures and socio-economic models have been to adapt.

Szeman's co-panelist, Werner Hofer, Founder Director of the Stevenson institute for Renewable Energy at the University of Liverpool, has spent several years looking for the best examples worldwide of the successful implementation of renewable energy solutions. Hofer notes that 6 % of all jobs in Austria are in the green economy. Hamburg has recently voted to buy back the electricity, gas and local heating grid, taking them into public ownership and attempting to maximise the efficiency of their production with renewable energy.

Hofer also points out that in the United Kingdom, Cambridge has reinvented itself as a haven for tech start-ups and has the highest innovation rating in the country. It has done so through the meeting of twenty-five people in a pub who challenged themselves to change the city a quarter of a century ago. This proves that change can happen through a series of small and slightly alternative decisions, Hofer argues, such as modifying planning and favouring certain credits above others. Eventually, the sum of all these different decisions can contribute to create a new environment.

As partial and incomplete as these solutions may be, they clearly demonstrate that in the abstract there are more than enough renewable-energy resources to satisfy our current and future energy needs. The question remains whether the sum of all these technological innovations and isolated local success

stories is enough to stir the necessary change to alter our reliance on non-renewable energies. How do we map these technologies onto current political systems and city infrastructures that are themselves by-products of the oil-economy? Is it enough to apply these technologies to our existing cities without rethinking the systems and oil-based socio-economic models that have created these cities?

Many European cities have an infrastructure, either by accident or for historical reasons, that can better support renewable energy as a result of the density of population in certain areas. However, in North American cities and those in other parts of the world that have been modelled after them – for example, parts of China, the Middle East and Africa where urban and suburban sprawl are widespread – the adaptation of the infrastructure to renewable energies is much more difficult to apply.

For Szeman, 'the problem with cities today is not just bad planning', but 'very real material relations that generate urban tensions and are pushing many cities to crisis', one of those being the concept of property generated by an understanding of the city as a 'capitalist accumulation'. The problem with property extends further when applied to the increasing privatisation of infrastructure – namely, energy infrastructures, 'which have had a more significant and determinant role in shaping cities into the forms to which we have become accustomed'.

Since our cities today have been shaped by the availability of oil, it is difficult to imagine what our future cities would or could look like in its absence. If they no longer responded solely to a capitalist logic, and ceased to be defined by suburban automobile culture, we would also have to admit that some activities such as agriculture, manufacturing and the production of energy itself would once again need to be produced at a regional and local level. We do not seem willing to do that, nor to move the debate away from one centred around technological advances and towards the structural changes that need to happen in our current political and economic systems in order to address the shortage of affordable oil. Perhaps it is a question that the energy crisis will oblige us to confront.

The recent debate and controversy around the exploitation of shale gas threatens to delay this looming and necessary confrontation even further. If the wide-scale exploitation of shale gas does go ahead, it will dilute the sense of emergency inherited from the eco-apocalyptic discourse, providing oil resources for another fifty years, at the most conservative estimate. It remains to be seen whether the ethical questions relating to the environmental and social concerns about the extraction of shale gas will have enough weight to prevent its wide-scale exploitation. The large amounts of water required to extract shale gas will also increase the geostrategic role of water resources and contribute to redefining a geo-political map of the world based around water and energy as the main commodities, much as the quest for oil and gas defined the geo-political map of the twentieth century.

In an optimistic scenario, it should be possible to imagine the flourishing of a shadow economy where energies could be traded between regions. If applied to the European continent this could mean that regions in the south with an abundance of sun could trade off solar energy against water from the northern regions. Instead of our current trade lines, we could imagine an energy infrastructure based on the exchange of these two commodities. In a city such as Liverpool, which spends over 1 billion GBP per year to pay for its energy, such a shadow economy could allow this money to be spent elsewhere in the city and reinvested in local communities.

This is the kind of thinking and deep structural changes that are needed – ones that would completely change the framework in which we think about our societies and the function of cities. Ideally, we should be able to imagine, as Szeman suggests, 'a social system in which we do not measure ourselves by the degree to which we produced more than the year before, as a measure of its capacity and success'. Perhaps what is most needed is a positive framework from which to start thinking about alternative political, social and urban models and dreaming about other forms of cities.

What is most intriguing about environmental discourse in general, according to Szeman, is the way that it challenges 'existing ideas about the relationship of aesthetics and politics and the ideas that we have

about how and when culture intervenes, and the capacity for citizens to make decisions about the way that they view the world.' It encourages us to think about the potential of current cultural production, in the sense of biennales, debates, documentaries and the like, to create a sense of the change required for a mass reaction. We need to question whether our aesthetic and cultural systems are the right ones, and whether what is needed is an increased individual sense of responsibility towards the issue, or a new collective modus operandi.

If we do admit that the challenges faced by the shortage of cheap energy cannot be dealt with at an individual level but instead require profound structural changes to our current economic, political and social systems, then we also need to change the way in which we address the debate on resources, not as an independent and specific discourse but one that is underlying in all aspects of our current capitalist social models. In short, we need to start discussing models in which everything is subject to change – and fast.

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Noura Al-Sayeh is an architect currently working at the Bahrain Ministry of Culture as Head of Architectural Affairs. Here, she is responsible for overseeing the planning and implementation of cultural institutions and museums, as well as the creation of an active agenda of exhibitions and academic exchange initiatives. Al Sayeh oversaw the programme for the *Month of Architecture* (2012), Manama Capital of Culture of the Arab World 2012, concentrating on the ideas and practice of public space in the Arab World. She was also co-curator and curator respectively of Bahrain's first and second participation in the Venice Architecture Biennale.