A Dialogue of Ingrid Paoletti and Maria Pilar Vettori with Gerard Evenden (Foster + Partners)

The idea of the Special Series 'Future Scenarios' is to put the architectural project at the centre of debate as a complex phenomenon, able to build a synthesis of scientific, social, political and cultural points of view, in a period where the anthropocentric perspective has radically changed our approach to the environment, to construction, to technology and materials, given their impact and effects on scarcity of resources and moreover today to urban health.
Gerard Evenden is Senior Executive Partner Head of StudioBSc, BArch (Dist), RIBA. Gerard Evenden has worked on a diverse range of projects during 26 years at Foster + Partners. Graduating from the University of Wales Institute of Science and Technology, Gerard's interest in innovation, materials and new building techniques, is evident in his global experience and demonstrated by award winning projects across the world. Gerard led Masdar City and has developed pioneering high-rise towers and transportation buildings. He named his children, Florence and Sydney, after two competition wins. Gerard enjoys a family life in Wiltshire.

Cities in transformation: environmental and social design and large scale perspective

Ingrid Paoletti and Maria Pilar Vettori *The last pandemic event has raised the need to re-consider the phenomena of fast urbanization and the future scenario start from the attempt to work with this uncontrolled expansion. What will be the role of mobility?*
Do you believe that design as an inclusive approach for the transformation of cities, is providing appropriate answers either to the emerging energy and environmental needs but also to social questions of how these transformations will impact on urban life, also after recent pandemic event?
Can you tell us something about the Mobility Pavilion for Expo2020 Dubai?
Gerard Evenden The pandemic has had a huge impact on the way people think about mobility in cities. All over the world, people have been encouraged not to use public transport and not to gather in large numbers. It is very interesting that in London, where access to public transport was severely restricted during the lockdown, two major changes have taken place – firstly, people started noticing that the air was a lot fresher, and secondly, a lot of people have taken to the bicycles as their primary mode of transport. Mobility will be in sharp focus over the next few years as people look to alternative ways of getting around.
A lot of people have also realized that they do not need to travel to their offices every day to go to work. We are going to see a lot more flexibility in the way people work and travel. Moreover, people have understood the importance of space. The majority of homes in London do not have a garden or an outside space. Many people have started considering if they should move outside London and work remotely, or go to the office for one or two days a week, rather than being there every single day.
The question on everyone's lips is, how the world is going to change? One way is that it will all go back to where we were, but I do not believe it will. The question for me is, how big the shift will be. We have been focusing for a long time on autonomous vehicles, how the advent of self-driving electric cars will interface with our built environment. Now we will have to think of ways to deal with that very quickly.
The Mobility Pavilion for the Dubai EXPO is designed with three arms that represent the past, present, and future. But what is the most exciting about the pavilion is the track and the public space surrounding the building. This brings me back to my original point about how buildings respond to the changes in mobility, how these are reflected in the architecture of the future.
This is also related to sustainability, thinking about the health, about the impact that we are having on the planet. If somebody told us a year ago that a tiny virus would have such a massive impact on our world, anyone would have said "That is impossible!" Yet, this has happened and the effect, rightly, is a movement towards positive change in relation to the issue of sustainability.
Sustainability has underpinned our work since the very beginning of the practice. We have always advocated for the need to build more sustainable and efficient buildings with fewer materials. A similar movement is seen in transport and mobility. There is a demand for systems that are better, cleaner and healthier. Suddenly, we are seeing a conflation of mobility, built environment and sustainability. All coming together with one focus. That would not have happened as fast as it is without the pandemic. It will force designers to really investigate what they are doing and how that is affecting the planet.
We have already been commissioned by many clients to help them to develop new approaches towards the future. For example, we participated in a study which showed that with current social distancing measures, we may be able to accommodate only two people in a lift car at one time. This means it will take seventy hours to fill the office tower. So, what does it all mean? How do we create the system that will work in the future? We are going to have a massive period of change. I think that change will be good.

Project for climate change: policy and technology for adaptation and mitigation

I.P. and M.P.V. *Strong scarcity of resources and radical climate change constitute a complex scenario with which design and project activities will have to face in the near future. Designing buildings and spaces is more and more an activity that involves different figures, included final users and policy makers. In your experience, which are the possible scenarios of cooperation among different figures, that can really foster a roadmap to change?*
G.E. One of the projects in which we began to tackle about the climate change in a big way was Masdar City in Abu Dhabi. Our approach was inspired by the principles of renewable energy and sustainability, which influenced the design of every element in the urban environment – we raised the ground plane, separated vehicles from people, created buildings that could have been prefabricated and constructed in new ways. We also created that buildings in a way that they can be taken down and recycled. We looked at the critical

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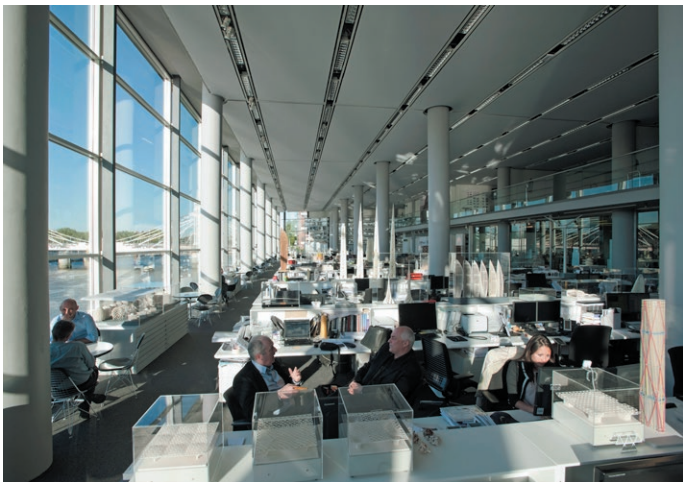

01 Foster + Partners, Riverside Office, London (credits Nigel Young, Foster + Partners)

02 Foster + Partners, Riverside Office, London (credits Nigel Young, Foster + Partners)

relationship between buildings in terms of the solar incidence, with buildings shading the streets. We tried to bring the street temperature down by controlling the materiality of buildings so that they did not radiate heat. The architecture emerged from the science, as opposed to it being just an artistic idea.

Something that is fast becoming an area of renewed focus is building reuse. When we calculate the impact of buildings on the planet, we have to think about the overall lifecycle of the building and how it can be extended and maximised. If your building cannot be reused, then it may not be as attractive to developers and clients in the future. We have to react to the changing world. The design principles will be much more scientifically and technologically orientated in the future.

New challenges for technical innovation: production, techniques and materials

I.P. and M.P.V. *In a back casting perspective, new production methods, construction processes, advanced materials and experimental technologies have to consider environmental protection and people's health and well-being as a priority goals.*

Foster + Partners is famous for its bottom-up and top-down innovation of technologies and materials in scientific research and in industrial experimentation. How do you interact with companies and industrial sector to develop products nowadays? What's on the air at the moment?

G.E. Collaboration is at the heart of all the work we do at Foster + Partners. To produce innovative building elements, the transfer of design information to contractors and other suppliers and the form in which this takes place is crucial. This is something that we continue to explore and work on.

The idea of innovation and technology is something our Mobility Pavilion explores as well. The overarching theme of mobility runs through three key elements: people, goods and transportation, and data. As a sequence, it is data that you give, that enables the transportation of the goods, which then people use.

Architects of tomorrow

I.P. and M.P.V. *The challenges of new domains and fields, where innovation seem arising in new territory, digitalization gain ground, practice and theory merge, method and tools change, roles reverse, require to the architect completely new expertise and skills.*

Which figure will be the architect of tomorrow from the perspective of such a cutting edge studio as F&P? Which challenges a young architect is going to face and how to tackle them?

G.E. The good news for architects is that the profession is changing and changing for the better. I think that is because of the need of linkage. The architects' role is becoming of pulling those links together. The architect coordinates and brings together structural engineers, a civil engineers, electrical and mechanical engineers. Now we have a greater and greater linkage because we now collaborate with other fields such as biology, technology and all other aspects affecting design. It is the architect's job to bring all these links together and to make sure they sit together comfortably to make the project successful.

We are not just talking about building, we are talking about the whole environment, looking at bigger projects around the world, on the structures of cities, structures of communities. Look at the pandemic and the effect of that on the communities. Before the pandemic, people in the UK were talking about the death of the high street. During the pandemic everybody was almost forced to explore their immediate surroundings. People realized that keeping the local communities together is incredibly important. All these linkages are the architect's responsibility in terms of the production of the build environment and buildings which we live and occupy. We must take a lead in that. We become a key part of making sure that things don't go back to the way they were.

A successful architect is one who thinks in a lateral way, as opposed to a vertical way, it's not good to focus only on your own subject, because you are a part of something that is bigger. My interest extends to vehicles and anything to do with technology. So, the thing that any student must not do is to restrict the mind. They should expand their mind, explore materiality, explore the economy, anything that interests them.

03 | Foster + Partners, Riverside Office, London (credits Rudi Meisel)

04 | Foster + Partners Mobility Pavilion Dubai Expo 2020 (copyright holder Asymmetrica and Foster + Partners)

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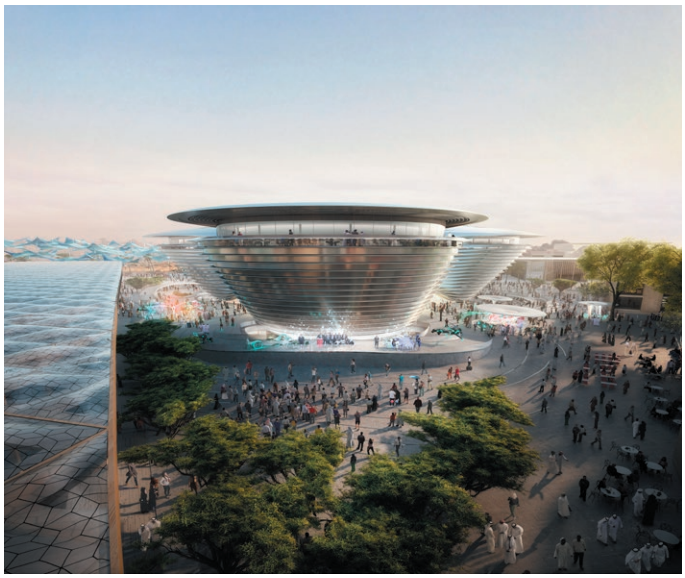
My daughter was talking to me about becoming an architect. I told her to go to study economics, understand art, and then investigate the science behind architecture. Because those three things are really the key components to what we do – one does not happen without the other. Lastly, as architects, it is our responsibility to advocate for change. It is the resistance to change that leads to stagnation and it is vitally important to embrace change to remain relevant and progress.

Expo2021 Dubai and the role of Expo's in the future

I.P. and M.P.V. *Universal Exposition have been since the beginning a very peculiar field for architectural practice in terms of opportunity of experimentation both in material and theoretical approaches.*
How do you think Universal Exposition have become drivers of change and forecasting of socio-technical scenarios? Will it be the same for Expo2020 Dubai now in 2021? How Foster + Partners will contribute?

G.E. I have now been involved in three EXPOs: in Shanghai, in Milan and Dubai. I think they are incredible opportunities to showcase innovation from around the world. The most important thing that comes out of EXPOs is the debate they generate and the way they bring people together. Personally, I found it incredibly exciting to work on all three so far.
Winning the Mobility Pavilion for us is a great opportunity to educate and entertain. In my experience, if there are too many complex messages very often the pavilion becomes filled with information that you forget very quickly. But if you ask me which pavilions I remember, they are always the ones that have very simple clear stories. If you think about any iconic piece of architecture, it is something that a child could draw. We all know what the shape of the Eiffel Tower is. We all know what the shape of the Burj Khalifa in Dubai is. This is because they embody very simple and strong ideas. That is what the EXPO very good at. In Milan, we did a pavilion for UAE that was inspired by the shape of a sand dune. When you walked in the pavilion you could experience a piece of desert. It is a very simple thing.
Hopefully, people will go to the pavilion in Dubai and they will test some transportation systems to understand the different forms of mobility, whether they are physical or digital. These subjects now in sharp focus globally. The questions on everyone's minds are – how do we want to live in the future, how do we want to work in the future? The architect is right in the middle of this discussion. We are at the right place at the right moment. Being an architect today is a fantastic opportunity to enable positive change!



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