

## **The New European Bauhaus - Bjarke Ingels**

Around the world, our cityscapes, streetscapes, and landscapes are designed through a “back of house, front of house” approach. On the surface, everything appears nice and pretty, but behind the curtain, far away from our urban cores, there’s all this messy and dirty stuff happening. Landfills, powerplants, factories, mines. Out of sight out of mind. It doesn’t need to be this way. We need to start thinking about the entire earth, from the ground up, all aspects of our society and economy, and set the stage for a more holistic, circular relationship with our planet. In the spirit of Bauhaus we should once again embrace whole-systems thinking that connects engineering and design, utility and beauty, infrastructure and art, and energy and ecology.

Today, we must look at the world as a single, finite design object. Our survival depends on it.

In many ways, the climate crisis is a side effect of this “back of house, front of house” thinking. The Earth has no “back of house”—it’s all one place—and we must treat it as such. We must create an integrated future that takes into consideration energy, industry, transport, food, and waste, and addresses the various areas required for us to live sustainably going forward, from biodiversity and water, to pollution and health, to architecture and urbanism. If we properly plan for this future, we can redesign the planet to cut greenhouse emissions, protect resources, and adapt to climate change.

I believe a true eco-fantasy—this isn’t just utopian thinking but a real pragmatic objective—could involve ultra-efficient aquaponic and hydroponic agriculture, and a carefully considered mix of horticulture or agroforestry. It would require that we think about all aspects of life, not just live in our stereotypes of whatever we think looks “pretty.”

Our sewage systems, our heating and cooling systems, our power supplies, our energy resources—all of these should be designed and engineered to become more beautiful, connected parts of this new hybrid landscape.

We must act—and act fast. Since 1990, yearly global CO<sub>2</sub> emissions have risen by more than 60%. An average global temperature rise of more than 1.5°C over the preindustrial era is approaching. Not only are we cooking ourselves as temperatures rise; as the amount of carbon dioxide in the atmosphere increases, we're also potentially intoxicating ourselves. It's clear we need to intervene.

In Danish, the original word for design is "*formgivning*," which, as it suggests, means formgiving—to give form to that which has not yet been given form. Essentially, it means "to give form to the future," or, at least, to give form to aspects of the future. As human beings and as designers—as *form-givers*—we have the power to give form to the future world that we would like to find ourselves living in.

The world we now live in has been given form by the people who came before us. We now have the power to give form to the world that we'll pass on to the next generation. All of the things that we haven't carefully given form to have ended up being the way they are. Nowhere is this perhaps more evident than on the outskirts of most major cities. There, you can see the "front of house" turn into the "back of house." What you end up with is some random accumulation of factories and plants, a practically uninhabitable industrial wasteland junked up together. What we should and could realize is a thoughtful integration of these systems into the vibrant life of the city.

Far too often, once an architect or designer gets involved in a project, all the decisions have already been made. What's left is for the

designer to prettify something. The earlier formgiving is inserted into the planning of our world's systems, though, the healthier and more holistic our world can become. This is where the New European Bauhaus could play a role in developing a sustainable, tangible and actionable masterplan for all of Europe. I believe we must try to come together and apply the power of formgiving at the scale of the continent – and eventually the entire planet - to affect real change within our lifetimes and for future generations.

When you design a neighbourhood, or even an entire city, you can start thinking about synergies of waste and water management, heating and cooling—between all kinds of infrastructure. Each time you go up in scale, you add complexity, and with that you gain the ability to knit together a more dynamic ecosystem. If you're planning a city block or a neighbourhood, you can start creating synergies that actually make it increasingly impactful to think sustainably, both ecologically and economically.

It's not a question of arrogance to ask: Should we sit down and carefully plan the entire continent – or the entire planet? How are we going to live here sustainably? How are all species going to live here sustainably? To me, this is imperative. The absence of planning, or even disjointed planning, will have long-term detrimental consequences. We need to start applying a masterplan for the entire planet, zoom in to specific sectors, and create both bottom-up and top-down solutions.

For 20 years now, this kind of thinking has been central to our work. In 2002, we designed the Copenhagen Harbor Bath, which helped transform the harbor from an industrial and transportation junction into the city's cultural and social center. This project has contributed to Copenhagen becoming one of the most livable cities in the world, breathing new life into an area historically reserved for industrial

purposes. It became clear to me back then that the sustainable city is not only better for the environment – it is also better for the lives of the people inhabiting it. To succeed the sustainable city or building or product must not only be the morally correct choice but also the most desirable choice.

More recently, with the sloping silhouette of CopenHill, a plant where trash gets converted to low-carbon energy, we took what would have, under other circumstances, been yet another eyesore and turned its roof into an Alpine ski run and its facade into a climbing wall. Since opening in October 2019, CopenHill has become a key part of the flow of resources in Copenhagen, as well as an enjoyable public space and a landmark on the skyline. It has proved that clean technology is not only good for the climate and the right thing to do, it can also make for a much nicer environment for those living around it—and now skiing and climbing on it. Why can't there be more CopenHills? It should be the norm, not the exception. We must innovate and integrate more parts of the world that we'd normally pretend don't exist.

What's required to realize this future is a full collaboration between engineers and architects. Over the past couple years, we've worked with rocket scientists on the Virgin Hyperloop, trying to give birth to this supersonic magnetic levitation vacuum-tube form of transportation, and with NASA engineers and Icon, a 3D-printing technology company, to design and imagine both the construction technology and architecture of how we're going to one day build on the moon. All are challenges that require new intersections of skills – of hard engineering and soft social design, environmental science and manufacturing technology – making us aware of the urgent need for a Bauhaus 2.0.

Very few people have yet to realize that our current way of being is unsustainable in the actual meaning of the word. It cannot be sustained. If you look billions of years back, one thing that's interesting is that the Earth, in its lifetime, has been through some incredibly dramatic climate changes, going from a molten lump of lava to an entire snowball to where we are today. What is different today is that these radical changes are happening in our own lifetime rather than over millions of years. We're witnessing geological changes on a biological timescale. We're in completely uncharted territory.

I believe the European Union is uniquely positioned to show global leadership in the urgent transformation of our economies, societies and cities to become socially, environmentally and economically sustainable. With the initiative to form a New European Bauhaus, the President of the EU Commission Ursula van der Leyen, has set the stage for the fields of design and architecture to play a substantial role in this transformation.

The unintended side effects of our way of life are having massive impact on our environment at a planetary scale. It is time to apply the power of holistic design to our entire continent – and our entire planet - to have not just accidental impact for the worse- but a positive impact for the better. The New European Bauhaus could be our contribution to propel this new interdisciplinary design discourse to create a holistic masterplan for an economically and ecologically sustainable climate neutral Europe – and to provide the whole world with a replicable scalable approach for a sustainable human presence on Earth.

The future is in our hands. Let's plan.