

**FUTURE**

This pamphlet is one of a series produced as part of the research project ***Architecture after Architecture: Spatial Practice in the Face of the Climate Emergency***.

Each publication introduces a topic, concept or theme crucial to the project through a range of perspectives and asks 'What does it mean in the context of climate, architecture, and spatial practice?'

Based on ongoing discussions amongst the research team and others, the pamphlets aim to be reflective as well as projective. They are preliminary in nature, written to be accessible, and usually written by one author working in collaboration with other members of our collective, **MOULD**.



**Architecture after Architecture**  
Spatial Practice in the Face of the Climate Emergency

## FUTURES

**In the face of the climate emergency, how can spatial practice think about the future in critical, imaginative, and projective ways? Some histories and hopes for the future.**

There are many ways of thinking about the future. As far back as the Oracle of Delphi, who gave her name to a modern-day method of forecasting, people have turned their attention to the future to prepare for, avoid, or attempt to alter what is to come. Thinking about the future can entail many methods and motivations. If we look at how the future has been imagined in the past, numerous histories emerge. Some tell stories of speculation serving financial growth, others of futures thinking being used to envision and enact social and environmental equity, still others of artistic projections for unbounded imagination.

Futures thinking is used across diverse sectors, industries, and disciplines, from the arts and humanities to political, legal, and economic spheres. Cinema and literature often use

*We take the word critical in the early Frankfurt School sense, as something that starts out with an unravelling of the social reality of the given condition so as to be able to understand how to transform it into something better.*

*Tatjana Schneider and Jeremy Till, 'Beyond Discourse: Notes on Spatial Agency'*

fiction as a vehicle to critique the present and suggest ways to transform it. In business contexts, instruments that extract consumers' data to anticipate future behaviour have proliferated, indicating the lucrative potential in modelling, forecasting, and prediction. At the same time, groups including the World Health Organization are designing scenarios to prepare for future pandemics and suggest systemic changes to help deal with them.

Such a breadth of application in futures thinking begs some important questions. The climate emergency necessitates systemic change, and demands that we think about new futures that exceed tinkering with or mitigating the present. As the climate crisis reaches various tipping points of planetary boundaries, social injustices, and environmental collapse, we must ask: **What species of speculation might this form of futures thinking be? What motivates it? What kind of future does this kind of thinking bring into being? Does it contribute to social and environmental justice, maintain business as usual, or even exacerbate inequities and climatic conditions that already exist?**

This pamphlet studies how the future has been thought about historically, and looks at methods for thinking in critical, projective, and imaginative ways about socially and ecologically viable futures today. Two stories illustrate the potential for futures thinking to serve very different ends.

# Two histories of the future

**London, England. 1970s.** Royal Dutch Shell corporation invite a French oil executive, Pierre Wack, to develop the use of scenario planning, as they face a decade of insecurity that will include two oil crises, significant industrial unrest at home, and mounting diplomatic tensions abroad. Wack is familiar with quantitative methods for futures thinking, which include time series forecasts, trend analysis, and data mapping. In contexts of financial accumulation, speculation tends to predict unknown short-term futures—the value of stocks, for example—while forecasting looks to longer-term changes occurring over several decades. Forecasting, foresight, and futures studies are activities that build knowledge about possible, preferable, or plausible futures. By the 1970s, data-driven methods of speculation and forecasting were integral to the strategic planning techniques of military agencies including the Rand Corporation, who used them to envision future scenarios for warfare and nuclear combat.

But Wack knew that quantitative analysis alone was insufficient to overcome the challenges presented by international tensions and the looming threat of an oil embargo. Altering stakeholders' 'mental models'

*When Marx characterized capitalism, the big question was "who produces wealth?" hence the preponderance of the figure of the Exploiter; this bloodsucker who parasitizes the living power of human labor. Evidently this question has lost nothing of its currency, but another figure might be added, without any rivalry, to this first, corresponding to the injunction not to pay attention, including even when barbarism threatens. This figure is the Entrepreneur, he for whom everything is an opportunity, or rather, he who demands the freedom to be able to transform everything into an opportunity – for new profits, including what calls the common future into question.*

Isabelle Stengers, *In Catastrophic Times: Resisting the Coming Barbarism*

through activities such as mind-mapping to draw on people's creativity, intuition, and implicit knowledge, became qualitative methods integral to Wack's approach. From his understanding of psychology, and forays into Sufism and Zen Buddhism, Wack began to see many management problems as crises of perception. He simply had to alter Shell leaders' worldview, he decided, to open them to the potential of alternative (and, crucially, lucrative) futures created by uncertainty.

Wack's holistic method caught on. He contributed to corporate projects in Japan, and gold and diamond mining in South Africa as it dismantled Apartheid. His method excited those invested in the hydrocarbon industry in which Shell was a major player. Wack's innovations opened mindsets and pathways for action geared towards increasing financial returns, in what can now be labelled a violently extractive economy. In some cases, such as Nigeria, political and social instabilities were even seen as desirable for Shell's profiteering. In others, such as South Africa, scenario planning mapped a peaceful transition to a multiracial government capable of more stable and long-lasting gold and mineral production, which safeguarded the profits of companies including De Beers for whom Wack worked. To this day, Wack's methods are used far and wide, especially in business.

**Yamagata, Japan. 1970s.** Some filmmakers stand knee deep in mud, grinning as they point their camera at some leaves, a tape measure, and a weather gauge. They've left consumerist Tokyo, moving as a collective—Ogawa Productions—to the mountains. There, following their charismatic leader Ogawa Shinsuke, they teach themselves to grow rice in the traditional method. Learning the ways of their farmer forebears, they say, and applying quantitative science to guide them, will help cultivate a better future.

The future that Ogawa Pro imagined and attempted to grow was based on their ideals of collaborative manual labour, low-impact food production, and a preservation of cultural heritage. The future they feared, and detected all around them, was an American-allied capitalist system of economic growth and urbanisation. Rural populations had shrunk. Many rice paddy landscapes were concreted over to make way for factories, shopping malls, and office blocks. Imported wheat became common. Cases of industrial pollution and chemical poisoning were rife but frequently silenced by corporations allied with the government.

Using film to document their farming apprenticeship, and experimenting with close-up, time-lapse and slow-motion devices to record botanical growth and changes in the weather, Ogawa Pro predicted what might happen to their rice harvest as they faced a cold snap and other climatic events. They

*Utopia's deepest vocation is to bring home [...] our constitutional inability to imagine Utopia itself: and this, not owing to any individual failure of imagination but as a result of the systemic, cultural and ideological closure of which we are all in one way or another prisoners.*

Fredric Jameson,  
Archaeologies of the  
Future: The Desire Called  
Utopia and Other Science  
Fictions

*We aim for ongoing, courageous, and honest ethical relationships and transformation rather than a utopia. We recognize that there is probably no final or most desirable state of ethical being... [but] a cluster of ethical concerns or 'coordinates' around which community economies are being (and might be) built.*

J.K. Gibson-Graham,  
'Cultivating Community  
Economies'

also used film to document the connection between climate and culture, interviewing farmers and villagers about their experiences of modernisation, pollution, and endangered tradition. Sometimes farmers re-enacted scenes from memories or myths. Combining these quantitative and qualitative approaches, Ogawa Pro invited people to imagine what futures might look like if urbanised and global capital was not the overriding logic. Their films constitute 'what if?' scenarios for imagining futures in which rural labour is rewarded, culturally and materially, and natural habitats offered more protection.

Other designers and artists working at the time, from Richard Buckminster Fuller to Agnes Denes in the US, also enacted interdisciplinary projects that spanned architecture, systems thinking, design, science, and computer simulation in approaches driven by an ambition to improve planetary and social wellbeing through fair use of its resources. Along with Ogawa Pro, their utopian initiatives continue to provide inspiration for spatial practices engaged in speculative design. The fact that their projects were sometimes ephemeral, and often labelled utopian, indicates the challenges they faced in countering systemic, cultural, and ideological norms.

What did a fossil fuel company and a group of farmer-filmmakers have in common when they thought about the future? Put simply: the possible futures of botanical matter. What are coal, oil, and natural gas except for fossilised plants? Wack was working within a carbon industry whose dominance is predicated on the belief that the Modern era has freed humanity from its dependency on the Earth by conveying us into a boundless technical and economic age. This belief disavows the very source of its energy: plants. Projects such as Ogawa Pro's refute this belief, revealing that most of humanity depends on botanical matter, and not just for food.

Wack's future is an accelerated version of the present, still bound to capitalist extraction, but extending its effects and so its economic worth. Ogawa Pro resist the extractivist mandate, imaginatively projecting new relations between humans and the planet.

The divergence of Wack and Ogawa Pro's intentions illustrates the fact that similar methods for futures thinking, which work through altering people's perceptions of value and motivation, can serve very different ends. For both, working with uncertainty and encouraging flexibility was key to their learning. Wack remained at Shell for over a decade, helping the company work flexibly with challenges presented by the oil crises of 1973 and 1979. Ogawa Pro continued to grow rice and make films for another 18 years, putting Yamagata on the world map for ecopolitical filmmaking.

## Speculative Futures

The experimental approaches of Wack on the one hand, and Ogawa Pro, Buckminster Fuller, and Denes on the other, are speculative in that they adopt modes of thinking that test unknowns. Once upon a time, speculation was a word for mirrors and related to a name for medieval encyclopaedias. These early definitions remain in the word's current association with reflective thought that seeks to expand knowledge by imagining, designing, or enacting possible future situations and development paths.

Speculative design often works through a method of building scenarios. Scenarios are neither predictions nor strategies, but narrative and visual hypotheses of different futures that invite conversation about the risks and opportunities of actions taken today. In business contexts, scenarios are usually devised in clusters of four or more, and often include 'best case' and 'worst case' hypotheses. In creative arts contexts, scenarios can take singular forms and extend as experiments for many years, as with the case of Ogawa Pro's farming-filming.

The term ‘scenario’ originates in the word ‘scene’ and in theatre, indicating scenario design’s role in helping people ‘play out’ actions to see how they might affect the future. Within scenario design there exist different vectors for thinking about time—those that start from the present and look forward, and those that start from a desired position in the future and trace possible paths backwards. This latter approach is known as ‘backcasting’ and asks, ‘what should happen?’ within a certain timeframe, to achieve a specific outcome. Backcasting brings an element of intentionality to speculative thinking. Some futures thinking suggests scenarios without providing a roadmap for how to reach them; other forms of futures thinking suggest fictive situations with no sense of why they are designed as they are. Balancing fore- and backcasting methods can generate a range of plausible futures and start dialogues about systemic change.

Humans’ dependencies on botanical, mineral, and animal-derived resources have only grown more acute. Most contemporary humans are now completely dependent on energy that comes from carbon. We urgently need to face the climate crisis, especially by attending to the ways neoliberal policies of the past fifty years exacerbate it. Against business-as-usual that promises (and never delivers) technocratic and market-led fixes to problems created by technocratic and market-led behaviour, projects like Ogawa Pro’s indicate how vital it is that we refocus our efforts on transforming systemic social and political conditions affecting the Earth and its populations.

*What should we do with our brain? is a question for everyone, that it seeks to give birth in everyone to the feeling of a new responsibility.*

Catherine Malabou, *What Should We Do with Our Brain?*

From a fossil fuel company to a group of activist farmer-filmmakers then, these concurrent histories of futures thinking prompt several questions. When facing unknown futures, what conditions are creating contingencies? How can ethical and political intentionality harness contingency rather than bend to external pressures that might compromise it? What or whom does flexibility serve?

# Futures then and now

The stories above are about how people think about and act upon the future, both using a combination of quantitative and qualitative methods. But their motivations could not be more different. Futures thinking continues in many sectors and disciplines today. Within political economy, many people concerned with the climate crisis and issues of social inequity are proposing economic scenarios for the future that serve people and planet more fairly. A major difference between them is their stance towards business-as-usual capitalism and the state. Some anarchist thinkers such as Murray Bookchin see emancipation and independence as incompatible with existent state and corporate structures where businesses shape policies and investments through political funding, lobbying, and other forms of engagement. Eco-socialists including Joel Kovel also see their goals for collective struggle and class solidarity as incompatible with conventional forms of profit-led capitalism. But economic models ranging from the Commons (Elinor Ostrom) through the various versions related to a Green New Deal (New Economics Foundation, Alexandria Ocasio-Cortez), to others which relate specifically to planetary boundaries (Kate Raworth, Anne Pettifor) understand the state as a necessary agent in providing financial

*Hope just means another world might be possible, not promised, not guaranteed. Hope calls for action; action is impossible without hope.*

Rebecca Solnit, Hope in the Dark: Untold Histories, Wild Possibilities

*A global Green New Deal looks at pathways out of the climate crisis that are rooted in principles of democratic ownership, gender justice, anti-racism and anti-colonialism. At the heart of this, is a reparative framework that places the responsibility on historic emitters in the Global North to take on their fair share of the struggle for a sustainable world. This means striving for zero carbon by 2030, scaling up climate financing, welcoming migrants, re-thinking land access, distribution and food justice, and providing the resources, know-how, and patent waivers for clean technology to countries that need it.*

Harpreet Kaur Paul and Dalia Gebrial, Perspectives on a Global Green New Deal

*The refusal to integrate [the history of slavery] into our views of modern economics prevents us from telling the truth about the current destruction of the environment, or to acknowledge—really acknowledge—the misery of workers today who provide us our goods. Facing this history, and thus reconnecting with the real providers of wealth, is the only way out of the property-based economics of capitalism and into a civic economy of different systems of provision that could save the future for our children and grandchildren.*

Marvin T. Brown, 'A Civic Economy of Provisions'

*How can we understand the entanglement of alienation, hierarchy and domination in terms that are simultaneously social, economic, ecological and political? And how can this understanding be used to leverage stronger and more joyful alliances for climate justice, reflecting insights, and commitments that are simultaneously feminist, queer, anticolonial, and trans-species?*

Greta Gaard, Critical Ecofeminism

and legalistic structures to encourage green investment, carbon reductions, meaningful employment, and welfare provision. They understand the potential benefits that markets and businesses can contribute when adequately regulated as forms of transformative innovation working towards socially- and environmentally just horizons. The goal in many such projects is not to dissolve markets but to shift from market-led to market-served economics. Many propose civic, community, or wellbeing economies that employ metrics other than Gross Domestic Product (GDP) to measure a nation's wellbeing—for example, metrics of health, happiness, working hours, housing provision, and access to green space, contraceptive, nourishing food, and clean air and water. Others including Dalia Gebrial and Harpreet Kaur Paul extend this vision for the future beyond national boundaries, recognising the planetary scale of the challenge ahead, and historical injustices that have separated affluent people from those whose lands and labour serve them. In all cases, these models understand that any future scenario needs to be based on the intersection of social, economic, and environmental relations.

In a sense, all design including architecture can be described as future-oriented because it inserts its outputs, material and immaterial alike, into the present in anticipation that they will improve life for future users. But considering what kind of speculation a process of design engenders is paramount for ensuring social and environmental justice.

At their best, design and architecture could shift culture from an anthropocentric and hubristic confidence that humans can harmlessly manipulate inert material through objective and expert control, to more environmentally responsive and responsible uses of space and material, that remain open to contingency and the potentials of iterative design for open-ended and democratic practice.

The question remains as to how designers and co-designers might move into these futures in a manner that does not replicate the tropes of the status quo, but also in a way that does not invent unbounded fictions. How to move both intentionally (towards a value-based set of scenarios) and openly (so that these scenarios are always available for change and collaboration). In fields of arts and humanities, imagination plays an important role in encouraging people to imagine and enact different futures. Storytelling is a very human impulse, and often derives from collective telling and re-telling, a fact which renders it a democratic and shared enterprise—and therefore a useful collaborative exercise in building scenarios. The feminist Donna Haraway is interested in making stories for this reason. She argues that we must learn to stay with the trouble of climate change and practice forms of creativity with other species in how we create and share space. Each activity builds a scenario because it alters the status quo and creates new relations between people, animals, and environments, with the aim of producing

*What (innovation) is being “born” and how does the design help it to arrive well? What (way of life, status quo) is “dying” and how does the design help it to “leave well?”*

Kate Raworth, Doughnut Economics Action Lab

*Design aims to challenge how people think about everyday life. In doing this, it strives to keep alive other possibilities by providing a counterpoint to the world around us and encouraging us to see that everyday life could be different.*

Anthony Dunne and Fiona Raby, *Speculative Everything*

*Contemporary ecological and social crises are inseparable from the model of social life that has become dominant over the past few centuries, whether categorised as industrialism, capitalism, modernity, (neo)liberalism, anthropocentrism, rationalism, patriarchy, secularism, or Judeo-Christian civilization... We need to step outside existing institutional and epistemic boundaries if we truly want to strive for worlds and practices capable of bringing about... significant transformations.*

Arturo Escobar, *Designs for the Pluriverse*

*The climate crisis is also a crisis of culture, and thus of the imagination.*

Amitav Ghosh, *The Great Derangement*

*The structural limits of this world restrict our ability to articulate all that the imagination is capable of conceiving.*

Lola Olufemi, *Experiments in Imagining Otherwise*

*What are the ideas that will liberate all of us? The more people that collaborate on that ideation, the more that people will be served by the resulting world(s).*

adrienne maree brown, *Emergent Strategy*

*We live in an era made up of ongoing multi-species stories and practices of becoming-with in times that remain at stake, in precarious times, in which the world is not finished and the sky has not fallen—yet.*

Donna Haraway, *Staying with the Trouble*

greater equity amongst them. Such scenarios often take pieces of the present and rearrange them, so they remain grounded and credible, but are released to imagine new potentials. Alternatively, they delve into gaps in current structures in order to disrupt established relations in a productive manner.

Creative practices allied with progressive projects for climate and social justice wrest the use of speculation and forecasting from extractivist practices of capitalism and turn them towards more ethical horizons. A combination of intention and provisionality, principles and flexibility, is crucial in this endeavour. The challenge is to think and work towards kinds of futures that have real-world implications and applications, but that are imaginative enough to reach beyond business-as-usual restrictions on justice for all. These futures might be plural, cultivating a world where many worlds fit, or a kind of pluriverse. We know that our human capacity for storytelling and imagination make us flexible thinkers—our challenge and responsibility is to decide what we should do with that power.

## Quotes

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