

# UNIT 14

## DISRUPTIVE TECHNOLOGY<sup>1</sup>



Iron Rolling Mill, Adolf von Menzel, 1872-1875

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At the center of Unit 14's academic exploration lies Buckminster Fuller's ideal of the 'The Comprehensive Designer', a master-builder that follows Renaissance principles and a holistic approach. Fuller referred to this ideal of the designer as somebody who is capable of comprehending the 'integrateable significance' of specialised findings and is able to realise and coordinate the commonwealth potentials of these discoveries while not disappearing into a career of expertise. Like Fuller, we are opportunists in search of new ideas and their benefits via architectural synthesis.

As such Unit 14 is a test bed for exploration and innovation, examining the role of the architect in an environment of continuous change. We are in search of the new, leveraging technologies, workflows and modes of production seen in disciplines outside our own. We test ideas systematically by means of digital as well as physical drawings, models and prototypes. Our work evolves around technological speculation with a research-driven core, generating momentum through astute synthesis.

Our propositions are ultimately made through the design of buildings and through the in-depth consideration of structural formation and tectonic constituents. This, coupled with a strong research ethos, will generate new and unprecedented, viable and spectacular proposals. They will be beautiful because of their intelligence - extraordinary findings and the artful integration of those into architecture.

## DISRUPTIVE TECHNOLOGY<sup>1</sup>

*"You never change things by fighting the existing reality.  
To change something, build a new model that makes the existing model obsolete."*  
R. Buckminster Fuller

This year, Unit 14 will start with examining the way in which culture relates to technology and how technology is constituent as well as driver for radical change of culture. As a laboratory for these investigations Unit 14 situates itself within Europe and its rich and diverse cultural context. It is shaped by separation, unification, deformation as well as reformation and at its core, humanistic Renaissance thinking embedded in its architecture, traditions and progress.

In our search for examples of disruptive innovation we will find very contemporary scenarios as results of disruptive technologies like the highly developed jet transport network or the internet. It is radically changing the social, economic and cultural landscape of Europe. Of course these radical shifts are in no way modern phenomena – triggered by the invention of iron making, the introduction of railways changed Europe forever while the Industrial Revolution catapulted Europe onto a new and unprecedented cultural level.

The underlying principle and observation of our investigations will be that visionary speculation inspires and ultimately brings about significant change. A prominent example of this is Jules Verne. His fascinating narratives and alternative worlds were enabled by envisaging technologies which were certainly viable, but did not actually exist as such at the time. And so imaginative tales is what Unit 14 will aim to tell. Thriving on competent research, the rich cultural environment of Europe, as well as speculation and vision we accept that technology changes the way we think, live and work. In parallel we will continuously question how we work as a catalyst for discovering the opportunities that our processes afford.

Unit 14 will be supported by a working relationship with innovators across design. We will liaise with experts from practices such as ARUP, Rogers Stirk Harbour + Partners, Buro Happold, and Foster + Partners. We will engage specialists, but remain generalists, synthesising knowledge towards novel ways of thinking, making and communicating architecture.

In the first weeks of the year we will try to understand Europe and the phenomenon of disruption through a series of exercises to identify individual areas of interest. This process will be supported by intense production of drawings, models and prototypes. We will learn together and then detect individual sites, opportunities and projects within the large territory which make us curious and show great potential to develop our research and test our assumptions.

To probe Europe's rich cultural legacy, we will travel to Vienna, the heart of Central Europe and what was once the capital of the Austrian-Hungarian Empire. From Vienna's central station we will depart late at night via a sleeper-train, riding through the Czech Republic and Slovakia to wake up in Krakow, the intellectual centre of Poland, deeply embedded within the continent in search of the wild and wonderful, the science and science fiction. While we dream of the unexpected we pursue innovations<sup>2</sup> as part of culture and so architecture which have the potential to disrupt and augment what we think we know about Europe.

1 to disrupt: to prevent something, especially a system, process, or event, from continuing as usual or as expected

2 to innovate: introducing new ideas; original and creative in thinking