

# SUSTAIN AND DEVELOP

*We will feel mounting pressure to plunder the environment. We will have a crash program to build more nuclear plants, strip-mine and burn more coal, and drill more offshore wells than we will need if we begin to conserve now. Inflation will soar, production will go down, people will lose their jobs. Intense competition will build up among nations and among the different regions within our own country.*

*If we fail to act soon, we will face an economic, social and political crisis that will threaten our free institutions.*

*But we still have another choice. We can begin to prepare right now. We can decide to act while there is time...<sup>1</sup>*

It is 1977 not 2009 and Jimmy Carter is about to reveal his new energy policy advocating conservation methods and the invention of new renewable technologies. Resulting from the tumultuous period of global economic re-balancing during the 1970s in which the US had already suffered the indignity of the 1973 oil embargo—a protest by the Organization of Arab Petroleum Exporting Countries against US military support for Israel in the Yom Kippur War—Carter realized that the continued development of the US economy was predicated on finding alternatives for its dependency on oil and becoming more sustainable.

Thirty years on and our predicament is worse rather than better. But the issue is still the same: how to sustain and yet continue to develop? This paradox remains the contentious issue blocking any form of global agreement on how to facilitate a reduction of carbon dioxide production and stem global climate change. The US refused to sign the Kyoto Protocol in 1997 due to China's exclusion from the requirement to reduce emissions as well as the fear that any reduction of their own would damage economic development. Despite this, the Protocol's ratification in 2005 set up a mechanism through which carbon could be traded to assist developing countries in financing carbon-reducing projects; in effect the excess of the developed world would subsidize sustainable projects in developing countries. The Protocol set out a clear mandate: that the only way to persuade countries and businesses to cut emissions was either through set targets or by providing financial incentives.

The Stern Report of 2006 commissioned by the British Chancellor of the Exchequer<sup>2</sup> presents the economics of climate change as an issue that could jeopardize the global economy. By financially evaluating climate change Stern argues that the cost to the world economy would be 5% of global GDP per year every year compared to an investment cost of 1% of global GDP per year to reduce emissions to a controllable level. In effect Stern inverted the problem; in order to develop, one must sustain.

Both the Stern Report and the Kyoto Protocol represent a strategic shift emphasizing the economic imperative of climate change rather than the fear factor of environmental Armageddon. The threat of imminent meteorological disaster, starvation, drought and

mass flooding do not seem to work. Only the likelihood of financial demise seems to trigger governmental action.

The Kyoto Protocol is not without problems; notably those that contributed to dissuading the US from signing it in the first place: India and China have no requirement to reduce emissions due to their status as developing nations, even though China exceeded the US to become the world's number one emitter in 2006. The global recession of 2008 reinforced the fragility of the global economic system while it stimulated promised investment from China into sustainable infrastructural projects and renewable energy. In this context if the Communist Party of China decides to direct policy towards environmental sustainability and structured regulation a real and rapid reduction of emissions could be feasible at a pace that is simply not possible through the political processes of Western democracy. Current indications are that China has no intention of reducing emissions as part of the revised Protocol. This revision will take place in December 2009 in Copenhagen as part of the United Nations Climate Change Conference with the aim of initiating a further framework beyond 2012 with the fundamental challenge to persuade the US to sign and for China and India to agree to reductions.

China's rapidly growing new prosperity and enormous population make it both the most active development economy and the most acute ecological precipice on the planet. There is perhaps no better place to feel this tension than in Dunhuang, an ancient oasis on the Silk Road and site of the Buddhist enclave at Mogao Grotto, where China has built its first municipal solar power plant and largest wind power array. Since 2007, China has required large power companies to derive 3% of their output from renewable sources; projections are for China to produce 30,000 megawatts of power from renewable sources in 2010—previously the 2020 target.<sup>3</sup> These extraordinary achievements pale in comparison to the challenge of providing for the power needs of the 720 million rural citizens of China in the coming decade. Especially in China's dry west, development often comes paired with political agendas that can be as threatening to local populations as the impending desertification they are meant to abet. In majority Muslim Kashgar, the Central Government's development plans call for razing up to 85% of the old city; their implementation comes amidst rising unrest and ethnic strife.<sup>4</sup> Throughout China, resistance to development can be seen from the subsistence plots being tilled adjacent to new skyscrapers to "nail houses"—private residences that refuse to vacate for commercial development.

As China demonstrates, the practice of architecture and urbanism is entirely intertwined within the quagmire of global, economic and political forces. Working in architecture, landscape and urbanism today means operating in the tension between development and sustainability. Forms of practice have evolved that not only respond to the question of sustainability but propose new positions through which sustainable strategies catalyze new forms of economic development and vice versa.

This new practice holds that sustainability and development are not mutually exclusive, but constantly overlap and mingle. Their steady state is not as the



Nail houses resist development amid fields of rubble near the ancient city wall, Xi'an, China, March 2009

poor hybrid *sustainable development*—an expression that more often than not exposes the basest opportunism of both terms—but as independent and coextensive fields that together comprise the practice of architecture. Likewise, this practice recognizes that neither sustainability nor development contains a categorical imperative, or demands absolute obedience. The pursuit of either must be considered in a state of protracted poise relative to the other.

This volume of 306090 compiles approaches that are grappling with this problem through specific interventions; investigations on existing phenomena; theoretical positions and cultural responses. Some are serious, some more playful. *Sustain and Develop* is a global poll of urban and architectural actors, from China, US and Europe, on the cusp of a new global direction on climate and resource awareness. With a newly inaugurated US president advocating *Change* there is real optimism for a significant global agreement inciting a new era of architectural and urban strategies enabling development through sustainable invention.

We hope the contents of this volume will be superseded urgently and imminently.

— Joshua Bolchover and Jonathan D. Solomon, Editors

1. Jimmy Carter, "The President's Proposed Energy Policy." 18 April 1977. *Vital Speeches of the Day*, Vol. XXXXIII, No. 14, May 1, 1977, pp. 418–420
2. [http://www.hm-treasury.gov.uk/d/CLOSED\\_SHORT\\_executive\\_summary.pdf](http://www.hm-treasury.gov.uk/d/CLOSED_SHORT_executive_summary.pdf)
3. Bradsher, Keith. "Green Power Takes Root in the Chinese Desert," *New York Times*. January 2, 2009
4. Wines, Michael. "To Protect and Ancient City, China Moves to Raze It," *New York Times*. May 27, 2009

