


Conflict negotiation

For Peter Head, cities are “large and complicated entities full of conflict and contradiction.” In order to negotiate differences, urban design requires collaboration among professionals, balancing the needs and interests of both the public domain and the private sector.

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“Urban design no longer exists!” claims Peter Head – but in the same breath, he tones down this provocative statement: “Today we speak of integrated urbanism that goes far beyond design.” By *we* he means the people of Arup. Founded in 1946, Arup has long been a leader in the industry. From the start, the firm made integrated thinking central to its extremely diverse activities in the fields of engineering, design, planning, project management, and construction consulting. Among the most famous projects on which Arup has collaborated are the Sydney Opera House, the Pompidou Center in Paris, the Millennium Bridge in London, and the Allianz Arena in Munich. Today, Arup is involved in about 10,000 projects on all continents. The focus of the firm’s activities is Asia, with a quarter of their 9,000 employees working in Hong Kong and China. Arup is currently playing a leading role in the development of Dongtan City on Shanghai’s eco-island, Chongming (see page 54), for example.

In cities, everything is linked to everything else

Peter Head is responsible for Arup’s activities in Dongtan. “On my project team of 400 people, we have transportation engineers, economists, urban planners, master planners, cost experts, and others. This diversity poses great challenges regarding communication. Engineers must talk with analysts and jointly develop solutions. One can scarcely imagine how hard it is sometimes to find a common language.” Arup considers exchange among people from different cultural and professional backgrounds to be a prerequisite for successfully advancing sustainable development. According to Peter Head, a fundamental tenet of the firm is that “systems are linked even if we don’t yet see all the link-



The first step for every project Arup undertakes is to organize workshops with stakeholders: collaborative planning helps define the goals and course of action.

ages.” In cities, everything is linked to everything else. A great many factors must be studied in the planning process: human and environmental health, economic vitality and individual prosperity, energy, housing, nutrition, urban-rural connections, mobility and access, communication, education, culture, governance, civic engagement, water, materials, waste, and of course a city’s ecological footprint.

Sustainable solutions can be found if we accept the givens

“If one of these aspects is ignored, then quality of life is at risk,” according to Head, who uses the example of Chongming to illustrate the interplay among various factors. “Because there are large nature preserves there, we must minimize air pollution. Cars with heavy exhaust emissions have no place on the island, only electric vehicles. They are not only cleaner, but fortunately also quieter, so residents can leave their windows open, which reduces energy loads for air conditioning.” Fuel-guzzling, noisy, and foul-smelling cars cause windows to remain closed and air conditioning to be installed – and thus more energy to be consumed. It’s a vicious circle. Because Arup encourages holistic thinking, they avoid simply imposing a ban on cars. “People want to drive cars,” Head realizes. “Mobility is part of lifestyle. Sustainable solutions can be found only when we accept such givens.” The green city Arup is designing on Chongming is laid out for people on foot, and everywhere there are car clubs and kiosks where one can rent sleek electric vehicles for a quick trip to Pudong.

Informed leadership

According to Head, establishing functional and sustainable systems requires above all leadership: “Leadership is fundamental. The highest authorities must be involved and support the concept.” The Chinese government is convinced that the country is undergoing “a transformation directly from the industrial age into the environmental age.” Such an attitude gives projects like Chongming the backing it requires to succeed. Leadership is not only the obligation of the small minority of powerful forces in government and industry, says Head: “In a certain way, we should all become leaders; everyone must feel empowered to assume responsibility in this matter.”

Success is a collective idea

One of Arup’s basic principles is that success is a collective idea. “Above all, we must not forget that many people must first develop respect for others and for the environment in order for leadership to work. We cannot assume that this respect already exists.” Sustainability is an extremely complex proposition, requiring that conflicting forces be held in balance. Peter Head cautions that “the interplay between research and practice must be intensified,” and believes that politicians, scientists, architects, property owners, and the public all belong at the table in debates about urban development.



Peter Head is Director of Planning and Sustainability, Arup (UK), a leading global firm providing design, engineering, planning and business services, and the creative force behind many of the world’s most innovative and sustainable buildings and transport and civil engineering projects. Head graduated in civil engineering from Imperial College, London, in 1969, and has become a recognized world leader in bridge construction (he received an OBE for successfully delivering the Second Severn Crossing as Government Agent), advanced composite technology, consulting engineering management, and now sustainable development of cities. In 2002, he was appointed Independent Commissioner on the London Sustainable Development Commission.