

Features

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CHASING THE GREEN DRAGON

A new documentary and multimedia project sheds light on green construction – one of the biggest untold stories of China’s environmental challenge. Angela Lewis interviews the filmmakers



The trials involved in sustainable building in China are captured in a revealing new documentary called *Green Dragon*, in which construction, environmental and government spokespeople give the lowdown on the green building debate. The figures behind the film are Max Perelman, a sustainable construction consultant currently completing an MBA at the Monterey Institute of International Studies, and Caroline Campbell, a former producer for the BBC.

Together with translator River Lu, the team traveled around China last summer to capture the opinions of local officials, building firms, and environmental professionals, resulting in a behind-the-headlines look at how various parties involved in real estate are trying to overcome the

obstacles on the road to sustainable development. The team has launched a multimedia website to share what they’ve learned, and Perelman is planning on following up by using his knowledge to assist construction companies in green techniques. The two spoke with *Urbane* about their journey, the film and, ultimately, finding some convenient truths.

Urbane: How did this documentary happen?

Caroline Campbell: Fate. Little did we know that when we innocently began talking over a glass of wine and a large plate of cheese at a local green cafe in Monterey, that three weeks later we’d be embarking on one of the most intensely tiring and rewarding journeys of our lives. I have been making films for 14 years, and had found myself traveling

Photos courtesy Green Dragon Media Project

from my home in London to work on a National Geographic series in Monterey. That job had just come to an end, but as I'd fallen in love with – and was engaged to – an American, I wasn't about to return to Europe. As I was looking for the next project, this Max character seemed rather well informed about China. As he spoke, I saw the potential of his project being a fantastic film. That was enough. Within a week we had proposals set up, and not long after we had our first lump of funding. But let's not forget our third team member, River. She had everything we didn't have – an in-depth understanding of China and its people, and the ability to charm the socks off just about anybody.

Urbane: What was it about this issue that made it so compelling to you – as opposed to other environmental topics, for instance?

Max Perelman: Many environmentalists establish “protected areas,” focused on protecting threatened biodiversity hotspots around the world. But global climate change knows no boundaries. What will happen to these parks when climate change fundamentally alters the habitats? Other environmentalists are concerned with air, water, and land-based pollution. When I mention to Chinese that I come from Pittsburgh, they always exclaim, “Oh! Steel!” Yes, Pittsburgh is famous for steel, but there is none there today – only beautiful blue skies, green parks and three relatively clean rivers.

All the mass steel production has gone overseas and, with it, the pollution. In the 19th and early 20th century, Pittsburgh's air pollution was so bad that they had to keep the streetlights on all day, and all the stone building facades were caked black with soot. But the earth has recovered from the horrible mess we caused. This takes time, but it is on the order of decades or centuries. Climate change works on the order of tens of thousands of years. I am concerned by the relative permanence

of the damage we are causing to the planet's fundamental balance.

Urbane: When you began, did you have a model in mind? What sort of a film were you hoping to make?

CC: Essentially we geared it to be of interest to the general public, but of specific relevance to the international green building professional community. That allowed us to “drill down” and reveal depth to the discussion. People can watch it three times and still be learning.

MP: We set out to make a film that was positive and actionable. We know China has 16 of the world's 20 most polluted cities, is arguably [along with the US] the largest GHG (Greenhouse Gas) emitter, and is the source of 25 percent of global airborne mercury pollution. We wanted to identify the issues, but frame them as opportunities. We wanted to tell the story of the Chinese government officials and professionals working to green the construction industry, and paving the way for sustainable Chinese development. They are out there and they are true heroes, but they need help.

Urbane: There's a sense that a lot of green building in China is fake, a kind of “green washing.” How cynical should we be, and what reasons are there for hope?

MP: Cynicism rarely helps – we launched Green Dragon in a response to the enormous amount of unconstructive negative stories about China in the US media. Let's stick to the facts. According to the engineering firm EMSI, there are 4 million sqm of LEED-certified green building area in China (versus 12.5 million in the US) and annual growth from 2006 has been over 130 percent. In 2000, Accord 21 launched in Beijing and was the first truly green building. I am hopeful because I see the Chinese government recognizing the crisis and acting to partner with international specialists and local green building leaders in a way that will turn »

From the Film

Key voices give their opinions on China's green building landscape

Jason Hu

China Merchants Development Group

Chinese culture contains many original concepts of what is now called sustainability. However, since the industrial revolution, we have begun to disregard these sustainable concepts and ways of living. We need to go back into history and retrieve these.

Ken Langer

EMSI, a green building consultancy

I think the rapid development of China's green building movement, from nothing in 2000 to what is now approximately 4 million sqm of green building construction [not including sustainable developments], is a story worth telling ... and for reference, the US now has 12.5 million sqm after 30 years of a green building movement

Xu Wei

Certification Department of the Chinese Academy of Building Research

I've been doing this work for many years, but only now is it getting more attention. In the past, compliance rates for energy efficiency standards were not high – around five percent. But today in large- and medium-sized cities you see more and more compliance. People have a sense of urgency now. There's growing consciousness about energy conservation, and the government is really emphasizing regulations.





“What can we do? We can raise consumer demand – Chinese developers are extremely savvy and will build green if consumers include environmental factors in their purchase decisions”

these environmental issues into opportunities for international collaboration and sustainable development. As far as people go, Jason Hu gives me hope. He’s one of the country’s largest developers, but he knows the issues, can talk the environmental talk, and is taking the initiative to transform the industry.

Urbane: So what’s preventing good green building from happening in China? Is it much like the challenges to green building that exist everywhere else?

MP: The barriers are fundamentally the same but with a Chinese twist. Many issues are typical of a growing industry, such as a lack of third party trade organizations, an uneven distribution of information across industry stakeholders, insufficient product standards and certifications, poor market demand, and a lack of pilot projects. But then there’s this China twist.

The government is short of resources to enforce regulations that would open the door to market-based incentives. China is looking to international expertise on how best to design these mechanisms. Also, waste disposal, water, electricity and fossil fuel prices are kept artificially low by the government. This reduces incentives to increase efficiency, and makes it difficult for renewable energy to compete. What China lacks in technical expertise or quality assurance, it makes up for in the enormous amount of labor it can allocate to a project, the speed with which it can build, and the uncanny skill for mass-replicating new innovations.

Urbane: Speaking of which, Dongtan, the eco-

city being built on an island near Shanghai, has been heralded for its innovation – but it’s also been called unrealistic as a model. What do you make of that project?

CC: What [engineering firm] ARUP is attempting to do with Dongtan is extraordinarily brave. I had the good fortune to interview and spend time with their lead architect, Shanfeng Dong, a softly spoken yet deeply insightful man who is leading his team to really understand the social implications and goals of this city. With a project as large as this, it was a surprise to discover their team eagerly investigating the aspects of Chinese culture that will make inhabitants content, talking it over with experts, looking around the world to see what other models they could learn from and really taking the time to identify and prioritize design features for the people who will live there. But this is still an experiment and I came away hoping that the international media will have the patience to let the experiment evolve in its own time before jumping to too many conclusions about what Dongtan is.

Urbane: What can those of us who are not in the building industry do?

MP: The leaders we interviewed and the professionals who see our film will take care of many of the market fundamentals. We can raise consumer demand – Chinese developers are extremely savvy and will build green if consumers include environmental factors in their purchase decisions. We also need to put a focus on the mayors. These local government leaders are crucial to steering China along a sustainable development path. And it’s important to be con-

Charles R. McElwee
Squire, Sanders & Dempsey

I think market-based initiatives are the way China is ultimately going to tackle this problem. China has the most efficient recycling system in the world. Does it have strict recycling laws? No. Does it have strict recycling regulations? No. Does it enforce recycling? No. It is a purely private enterprise-driven system.



Hannah Routh
ESD Sinosphere

When you think about the amount of construction that is going on in China – half the world’s construction before 2015 will be here – it’s important that there is a mechanism flexible and immediate enough that can be applied straight away, and that people will undertake unquestioningly. Where you have a policy environment, you also have big questions related to enforcement. You can have all the policies you like, but unless they are enforced, you’re not going to see a result.



**Benjamin Christensen
Jones Lang LaSalle**

Its applicability in China is limited, because the current standard of construction is far below the LEED level. There is no system designed to encourage developers focused on middle-end projects to build more sustainable buildings. Hopefully the Ministry of Construction system will achieve this by having certification levels set somewhere between the previous China standard, and the standard set forth by international systems such as LEED. It is unrealistic to expect Chinese developers to suddenly jump from a very low energy efficiency standard to LEED certification.

**Jin Ruidong
National Resources Defense Council**

Right now, I believe the main obstacle of green building promotion in China is lack of market incentive policies. There need to be detailed market incentives to accelerate the market in land planning, tax benefit and construction inspection procedure. Especially for residential building developers, costs and profits are always their concerns. They cannot get benefits from a green building when the building is completed. For commercial buildings, developers like to build green if the costs don't rise much. The green building label system is designed to enforce the standard implementation, but it is still voluntary for the market. As the China real estate market is currently driven by sales, I don't think the system will be widely adopted in a short time, unless there are market incentive policies or government enforcement.



**Linda Zhu
Adventist Development and Relief Agency**

From what I learned from construction professionals, they need help in the areas of green technology development, as well as to understand what green building is. They need information from professionals in other countries that have more green building than China.



structive and think in terms of opportunities for collaboration. China will go green eventually. But how much damage will be done until then, and will the West lose global market leadership in the process?

Urbane: What differences did you find between first-tier cities (Beijing, Shanghai and Shenzhen) and second- and third-tier cities?

MP: It was very hard for us to get access to government officials – mainly because they were concerned we would just produce another China-bashing video. The first-tier cities are largely built up and the mayors are already on board with the idea of sustainable development. But in the smaller cities they are still thinking the path to premier [league status] is by building little Mannhattans in their new “CBDs” [central business districts]. The smaller cities are less built up, so there is more opportunity to create public transit-based, mixed residential and commercial communities, as well as “eco-industrial parks.”

Urbane: What are the chances an international green building certification standard like the US's LEED will take hold in China?

MP: I pressed a lot of people in China on the certification topic. In general, they were non-committal, but many thought there was a place for both government and non-government certifications. While I believe China will develop its own localized system of labels and certifications, and this is the way it should be, I think the general pattern will follow how the US market is playing out, so we may be able to glimpse aspects of China's future by looking at current US trends. Some local form of LEED will, at the very least, be the standard for international [building] projects.

Interviewees mentioned that LEED's competitive advantage was its commercialization – it is easy to follow, and there is a support structure of branding, information materials, training and an entire consulting industry centered around it. While some might believe other standards (like the UK's and Japan's) are better, LEED is easiest to implement, and the brand recognition is high. The next step for LEED in China will be the translation and localization of the LEED rating system, and the establishment of a local USGBC (US Green Building Council) body to oversee local marketing, training, and certification.

Urbane: What's next for the two of you?

CC: We launched our multimedia website to accompany the film in February [see below] and are selling copies of the DVD in order to fund a second film project. There is a huge amount of potential to serve and educate high-level players in China through the networks we have laid down. It is most likely that we will be creating a series of films about some really extraordinary projects taking place in China within the green building movement – enormous projects involving true Chinese visionaries. The plan is to create a version of these films for public broadcast over there [in China], and then reversion them for use in sustainability-focused mayoral training programs.

Urbane: What has the reception been like? Have you seen a change in the way people are thinking?

CC: We have had an extraordinary response – much more than I ever imagined. People watching [the documentary] have already had a varied experience of China, but I think invariably they come away enlightened about China's context, and encouraged momentum is building so rapidly around this industry there.

Urbane: Is this film, to you, *An Inconvenient Truth* for green building in China?

MP: Despite numerous reports warning the world, few people cared about, or believed in, climate change until the film *An Inconvenient Truth*. We need high-impact films to move minds and drive change, but they need to be followed up with resources for people once they are on board – detailed data, text reports, lists of contacts and projects.

CC: *An Inconvenient Truth* dealt with a long-standing scientific debate. It addressed a seriously harrowing possibility. Our film does not address China's role within that. Instead, it addresses the extraordinary complexity of setting a new approach to building into motion at a time when the country is already in “all systems go” development mode. But how could we tell that story without touching on the incredible wisdom that the ancient Chinese culture still holds when it comes to living in harmony with the environment? I hope that the film at least does some justice in portraying the Chinese way of doing things. It is a way that could well become truly convenient for the rest of us. **U**

To view the Green Dragon Media Project or to donate, visit www.greendragonfilm.com