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Trouble for China's Model Green City

A much-ballyhooed plan of American architect William McDonough to build a model environmentally sustainable city in China has gone awry.



Rendering: William McDonough + Partners

What William McDonough's model city was supposed to look like

WEB EXCLUSIVE

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May 10, 2007 - When American architect and industrial designer William McDonough visited the Chinese village of Huangbaiyu in the summer of 2005, he brought a great message of hope. As the co-chair of the China-U.S. Center for Sustainable Development, McDonough was the visionary behind an ambitious plan to transform the hamlet into a green village—a model of ecologically balanced living (see “[Building in Green](#),” NEWSWEEK International, Sept. 26-Oct. 3, 2005). On that dusty summer day, Chinese officials unveiled an ambitious project to build a new village, with hundreds of energy-efficient homes constructed with state-of-the-art material that would not harm the environment.

That was two years ago. According to plan, by now the Huangbaiyu project should have been well on its way to becoming a world model for environmentally friendly living, not to mention the kind of international cooperation between the developed and developing world that many leaders say is essential to combat big environmental problems. Instead, it has become a cautionary tale in what can go wrong with grand plans to save the world from environmental catastrophe. The project appears to be a mess. Construction of the 400 houses is way behind schedule. The 42 that have been built still have no heat, electricity or running water. Walls are already cracking and moisture seeps through the ceilings. According to people who've worked on the project, many of the houses don't adhere to the original specifications—meaning they could never achieve the energy savings they were meant to achieve. The biomass gasification facility meant to burn animal, human and agricultural waste, doesn't work. Not surprisingly, no one in the village has

volunteered to move into the new community.

From the beginning, the nonprofit China-U.S. Center (which has high-ranking Chinese ministry officials and U.S. donors on its board) and the locals seemed to have held vastly different expectations of what the project should be and the benefits it should bring to Huangbaiyu. McDonough and his team seemed convinced the local government and the villagers understood that the Americans—including several major corporations who provided technical expertise—were willing to supply the vision but not the investment. But from early on, the locals thought the project would bring them money and jobs—and were even convinced that one of the big U.S. corporations would build a factory in the village. Even among villagers who initially supported the program, it's clear that the concept of sustainable development, at least the way McDonough envisions it, doesn't mean much to them. Whereas McDonough meant living in harmony with the environment, locals expected jobs. Village elder He Wenfu, who voted in favor of the project, said he heard a lot of talk about sustainable development and building a pretty village with a nice lake, but essentially thought McDonough was "a guy with a lot of money who would help the Chinese build factories." He asks, "Why would they develop this plan if they had no plans to invest in the village?"

The master plan for the village, which McDonough designed with a team of Chinese and Americans, was ambitious. It called for 400 houses to be built by 2008—the first 150 were to have been completed by 2006. By locating the houses in a centralized town center, the idea was to create more available farmland for the villagers, many of whom derive at least part of their income from farm work. Each house would be built using local materials, all of which would be either biodegradable or easily recyclable. To avoid creating pollution during the construction process, the walls were to be made of pressed-earth blocks. Straw would provide insulation for the homes. The community would be fueled by energy from a biomass gasification plant, and eventually have a water system that would conserve water. There were plans to build a new school that would also be environmentally sound. The entire project was to be implemented by a local entrepreneur, Dai Xiaolong, who would act as the developer and put up an initial investment of about \$250,000 (he says he has invested four times that amount already). He was to receive technical assistance from the China-U.S. Center, but the project was originally supposed to be financed by the local government and Dai's company—with no funding from either the Chinese central government or the center itself.

The plan looked great on paper. Each house was supposed to cost no more than \$3,500, but cost overruns have doubled that figure. As a result, the new homes are too expensive for Huangbaiyu villagers, who earn just under \$1,000 a year on average. Two families have moved in, but one told NEWSWEEK that they had little choice in the matter. When their old homes were destroyed in an electrical fire, provincial authorities gave them the choice of putting any compensation the state gives to fire victims toward a down payment for one of the new homes, or receive nothing. The families don't even seem to know about the original intent of the project. "I don't know why these houses were built," said Yin Shiqin, who, after the fire, moved into one of the new homes with her family six months ago. When a NEWSWEEK reporter told her the homes were part of a larger, environmental protection project, she giggled nervously. "Environmental protection?" she asked, clearly not understanding the meaning of the phrase.

The American team at the China-U.S. Center, including McDonough, admit there have been more challenges than they anticipated. One big problem was a change in county leadership, which caused delays in funding for critical aspects of the project, such as the electrical infrastructure. The American executive director for the China-U.S. Center, Rick Schulberg, blames the local government for underestimating what it would cost to develop a model village. He also said that Dai moved too quickly in building the houses and that his priority was not in making the houses environmentally friendly. Feng Huandu, an environmental engineer who used to work on the project, said that the houses weren't built to the specifications called for in the original plan—some materials not in the original specs were used. (Dai has admitted to departing from McDonough's plan, but wouldn't get into specifics.)

The China-U.S. Center told local officials that villagers should not be pressured into moving into the new homes, says Schulberg. The center will soon send a team will go to the village to evaluate the homes that have been built. The center also hopes to develop a manual sometime at the end of this summer that will discuss its experiences—both good and bad—in working with the village so that others can learn from the experiment. "Would it have been better to ratchet down the expectations? Absolutely," Schulberg said, but added. "I have no doubt that something good will come out of it."

The local Chinese seem less sure. Local leaders and farmers in the village say they were led to believe the Americans would be building a big factory, and that if the Americans don't invest a huge amount—and soon—the project might die. Former county party official Zhang Shuyuan said he was led to believe that the Americans would eventually make a big investment—and that one representative from the center told him that as soon as the houses were built, factories and industry would be moved in. Representatives from the center deny making any such promises. Rumors of a big factory coming to town won't seem to die, however. "Mr. Dai doesn't have any more money to continue this project," Zhang complains. "It was called a joint venture, but the American side only shouted slogans and didn't invest anything."

Now, most people involved in the project are trying to find ways to move forward, but with more realistic expectations. Dai said the county government has promised to give him enough money to at least finish the 42 houses that are standing. (The center has confirmed the Chinese Ministry of Science and Technology has provided the county with the needed funds.) McDonough says he now simply wants to build a school that will provide village children with the same quality of education they could receive in a city. That way, he said, children in Huangbaiyu would not have to leave home to go to school during the week. He said his team also continues to explore "small-scale" environmentally friendly enterprises that would provide jobs and raise income levels in the village. When talking about the Huangbaiyu project now, he no longer uses lofty phrases or talks about changing the way the Chinese live, as he did two years ago. "This is the hardest project I've ever volunteered for," he says. It's like climbing a mountain, and we're on our way to getting the base camp stocked. I think we're just at the beginning."

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