By Cynthia G. Wagner

Big Boda load-carrying bicycle made by WorldBike and the workshop of Moses Odhiambo in Kenya (first phase 2002-2005). The lightweight bike can carry hundreds of pounds of cargo or two additional passengers, and at lower costs than other forms of human-powered utility vehicles. *Details: WorldBike, www.worldbike.org/big_boda.*

Designing for the "Other 90 Percent"

Fancy clothes and cars for the rich and famous aren't the only things needing great design. A new exhibition honors design solutions for the world's poor and needy.

A pot for more-efficient food storage, a bicycle rigged to carry hundreds of pounds of cargo, and simple pumps for irrigating crops during the dry season. These are just a few simple technologies that deal with the everyday problems of the 90% of humanity usually neglected by the world's top designers—and the subject of a new exhibition at the Smithsonian Institution's Cooper-Hewitt, National Design Museum, in New York City, running May 4 through September 23, 2007.

One Laptop Per Child (OLPC) is MIT media guru Nicholas Negroponte's simple idea of developing a laptop computer that is inexpensive enough—just $100—to ensure that every child on earth has access to the information technologies driving our planet's future. The model pictured was designed by Yves Behar/fuseproject and Martin Schnitzer and manufactured by Quanta Computer Inc. and OLPC. *Details: One Laptop Per Child, www.laptop.org.*

LifeStraw is a personal water-purification device, designed by Torben Vestergaard Frandsen. The simple activated carbon filtration system aims to tackle the Millennium Development Goal of reducing the proportion of the world's people without sustainable access to safe drinking water. *Details: Vestergaard-Frandsen Disease Control Textiles, www.vestergaard-frandsen.com or www.lifestraw.com.*

Global Village Shelter: Disaster-relief shelters offer more interior comfort, privacy, and protection from the weather than traditional relief housing. Designed in 2004 by Ferrara Design Inc. with Architecture for Humanity and manufactured by the Weyerhaeuser Company, GVS shelters can be set up easily by individuals with little guidance and no tools. *Details: Global Village Shelters, www.gvshelters.com.*

Bamboo treadle pump is a stilts-like pair of cylinders with pistons, which pump large volumes of water just through natural walking motion. The device, designed by Gunnar Barnes of International Development Enterprises, is easy enough for younger family members to use, and its low cost makes it a viable technology for very poor farmers. *Details: International Development Enterprises, www.ideorg.org.*

With sections focusing on food, water, shelter, health and sanitation, energy and transportation, and education, "Design for the Other 90%" focuses on problem solving for the vast majority of the world's people who survive under the poverty level or who are affected by natural disasters.

"Ninety-five percent of the world's designers focus all their efforts on developing products and services exclusively for the richest 10% of the world's customers," notes advisory council member Paul Polak, president of International Development Enterprises. "Nothing less than a revolution in design is needed to reach the other 90%." □

Pot-in-pot cooler: Simple nested earthenware pots become an efficient food storage system. Water and sand fill the spaces surrounding the inside pot, refrigerating the food. Designed by Nigerian teacher Mohammed Bah Abba, the cooling pots have won numerous international awards. *Details: "Mohammed Bah Abba and His Pot-in-Pot" by Warren McLaren, www.treehugger.com.*

About the Author

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