

FORCED LABOR IN THE GLOBAL ECONOMY

A DAY-LONG SYMPOSIUM WITH NPR AND THE BBC

The MIT Program on Human Rights and Justice

The MIT Program on Human Rights and Justice is the first such program ever to be established in a leading technology school and the first in the world to focus on the human rights and justice aspects of economic, scientific and technological developments.

Directed by Balakrishnan Rajagopal, Ford International Associate Professor of Law and Development in the Department of Urban Studies and Planning, the program explores the impact of technology on human rights in areas as diverse as information technology, biotechnology and energy systems and the impact of economic globalization on human rights.

The program sponsors a speakers' series, workshops, conferences, research projects, student internships, and a fellowship program. It also provides a forum where faculty members and students can come together for collaboration on the human rights aspects of their work. And it serves as a resource center on human rights, providing information to the MIT community on human rights resources and opportunities.

The MIT Program on Human Rights and Justice is a collaborative effort between the Department of Urban Studies and Planning and the Center for International Studies. The Center sponsors research and teaching in a wide range of subjects including development studies, comparative politics, international relations, social movements, security studies, and international science and technology. It involves 160 faculty and staff, mainly drawn from the departments of political science and urban studies, and visiting scholars from around the world.

A day-long symposium on forced labor in the global economy was held at MIT last spring, and broadcast widely around the world.

A collaboration between the BBC World Service Trust, MIT's Center for International Studies and the MIT Program on Human Rights and Justice (see sidebar), the event consisted of two debates and a round table discussion. The first was aired by NPR's *On Point*, with host Tom Ashbrook, and distributed across the US by National Public Radio; it was also offered to public TV stations in the US. The second debate, hosted by Zeinab Badawi, was televised by BBC World, the BBC's international 24-hour news and information channel, reaching 258 million households around the globe. Both programs can be accessed on MIT's on-demand video site, MIT World, at mitworld.mit.edu.

The two debates were followed by an intensive closed-door session involving leading policymakers, academics, journalists and activists discussing the challenges of addressing forced labor practices. (A report of those round table discussions has been produced as a way of furthering the dialogue on violations of labor rights. For a copy, contact Heidi Knuff at hknuff@mit.edu or download a PDF here: <http://web.mit.edu/cis/starr.html#2005>. Streaming video of the events are also available at that site.)

The symposium coincided with the release of a major report by the International Labor Organization (ILO) on the scope of forced labor around the world. The most comprehensive analysis of the subject ever undertaken by an intergovernmental organization, the report revealed that more than 12 million people around the world are trapped in forced labor, and provided the first global estimate of the profits from that traffic—US \$32 billion each year, or an average of US \$13,000 from every forced laborer.

The report examines the labor market conditions under which forced labor is most likely to occur and confirms that the problem is present in all regions of the world. It examines the strong pressures to deregulate labor markets—part of the drive to increase competitiveness by reducing labor costs—and makes the case that forced labor can be abolished only if governments and national institutions



Photos: ©International Labour Organization/Crozet M.

pursue active policies and vigorous enforcement. It also presents the positive experience in selected countries that, with ILO assistance, are tackling the underlying causes and helping victims rebuild their lives.

Participants in the symposium included a former child slave, the US deputy secretary of labor and an anti-slavery activist working to end child and forced labor in the chocolate industry. Guests for the two programs included Columbia University economics professor Jagdish Bhagwati (*In Defense of Globalization*); Roger Plant, chief author of the ILO report; MIT Sloan School professor Thomas Kochan; and Terry Collingsworth of the International Labor Rights Fund.

The event was supported by the International Labour Organization, the US Department of Labor, the Government of Ireland, and the UK Department for International Development.

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Building the \$100 Laptop

A Project to Revolutionize How We Educate the World's Children

MIT's Media Lab has launched a new research effort to develop a \$100 laptop—a technology that could revolutionize how we educate the world's children.

The project was announced at the World Economic Forum in January by Nicholas Negroponte, chairman and co-founder of the Lab. Negroponte has been a passionate advocate for using digital technology to erase economic barriers in the developing world since the early 1980s, when he took Apple II computers to Senegal with his colleague Seymour Papert, professor emeritus at the Lab and one of the world's leading theorists on child learning.

Now Negroponte wants to persuade the education ministries of countries like China to use laptops to replace textbooks. Papert and Joe Jacobson, head of the Lab's Molecular Machines group, are leading this effort with Negroponte, joined by several other Media Lab faculty members and experts in computer technology.

The proposed \$100 machine will be a Linux-based, full-color, full-screen laptop that will use innovative power (including wind-up) and will be able to do most everything except store huge amounts of data. The first generation machine uses a novel, dual-mode LCD display commonly found in inexpensive DVD players, but that can also be used in black and white, in bright sunlight, and at four times the normal resolution—all at a cost of below \$30.

These laptops are not in production yet, and they will not be available for individual purchase. The preliminary schedule aims to have units ready for shipment by the end of next year or early 2007, when the machines will be distributed through ministries of education willing to adopt a policy of "one laptop per child".

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Dimitri Negroponte

Riding Out the Wave

MIT/Harvard Team Designs Tsunami-Resistant Houses



Tsunami Safe(r) House team



The Instant House

A Project in Paperless Construction

Another research effort here, related to the urgent need for housing in stricken areas, is the development of the Instant House—a prefabricated structure of plywood assembled solely with muscle and mallets, without any nails or screws or glue.

Led by Professor Larry Sass in the Department of Architecture, the project combines CAD technology with computer-controlled machinery to build a whole house from computer models and pre-cut plywood sheets with no drawings or paper documents.

The designer creates a 3-D computer model, flattens the objects to a horizontal position in CAD, then sends each component for cutting. Each component is manufactured with tab or slot for easy assembly and joinery is so precise that all parts stay together by friction alone.

Using high-tech engineering principles, an MIT/Harvard team has developed a low-tech solution to the problem of how to build sturdier homes in tsunami-prone areas. The 'Tsunami Safe(r) Houses', which can be built for \$1200 each using materials available locally in Sri Lanka, will essentially allow a powerful ocean wave to go *through* the house instead of knocking it flat.

Built atop concrete blocks or wood, one or two feet above the ground—so that high waters can flow underneath, making the houses more storm-resistant—the 400-square-foot homes will have four core columns made of an ad-hoc combination of concrete blocks and rebar, each about three meters wide, and an open floor plan for the kitchen and living areas. Between the four columns, homeowners will be able to build walls of wood or bamboo to individualize their spaces.

According to a simulation by Buro Happold engineers (London), the structures should be over five times more resistant than traditional Sri Lankan houses in the face of incoming tsunamis. People of all faiths who lost homes in the 2004 tsunami are eligible for the houses and encouraged to help build them; first prototypes were constructed this summer. The architects have also designed a 1000-square-foot community center based on a similar type of construction.

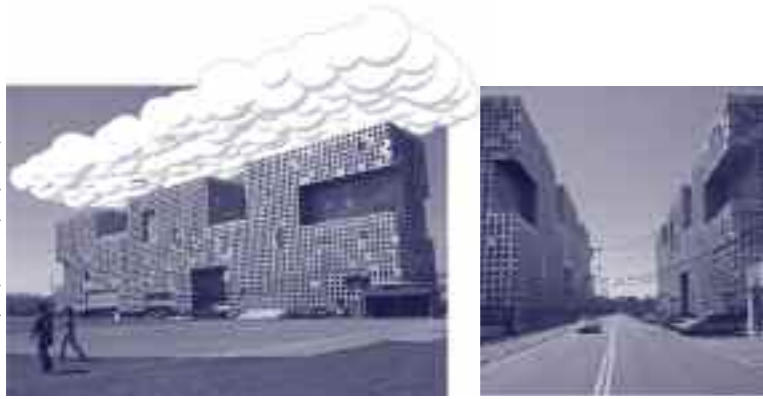
The project was initiated by Carlo Ratti of MIT's SENSEable City Laboratory, a joint research initiative of the Department of Urban Studies and Planning and the Media Lab, in collaboration with MIT's Buddhist chaplain, Tenzin Priyadarshi.

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How Many Buckets on a Rainy Day?

A Competition and Exhibition on Lived-In Architecture

Thom Covert, Stephen Form, Coryn Kempster



Playing off the notion that great architecture is all-too-often described as less-than-functional—Philip Johnson claimed that architectural masterpieces could be ranked according to the number of buckets needed on rainy days—an exhibition describing MIT's new Simmons Hall from the point of view of its residents has been slated for early next year at the Canadian Center for Architecture.

Conceived by Carlo Ratti, Director of MIT's SENSEable City Laboratory, the exhibit is an outgrowth of a recent competition here, called 'Drill a Hole in Simmons Hall', sponsored by the laboratory in coordination with the dormitory's housemasters and with the blessing of architect Steven Holl.

Focused on the physical and digital design of public space in the building, the competition addressed two sets of issues—the need to make changes to the eighth floor terrace and the need to create an infrastructure for communication among the residents of the hall.

The winning proposal included a new roof deck with a range of spaces—enclosed, exposed, shaded, sunny, intimate and social—and, to address the need for a communications infrastructure, LED-like displays to be placed throughout the building at all scales, taking advantage of the building's famed porosity. At its grandest scale, the dorm's entire façade would become a display board for the community at large.

The exhibit in Montréal will include these ideas, along with a number of other interesting entries from the competition—among them, the whimsical ones pictured here—accompanied by discussion of the mechanisms through which a community appropriates space.

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After addressing the official issues, the winning team took off on a flight of whimsy and irony, addressing some other issues they deemed worth paying attention to. They proposed, for example, constructing a second Simmons Hall across the street from the existing building so architects and tourists could make their annoying pilgrimages without disturbing the residents. And, to redress the peripheral position of the hall on campus, they also proposed that Simmons should have its own cloud-shaped zeppelin. Big and friendly, the private zeppelin would shade people from the sun or provide protection from the rain so the roof deck could be used in all kinds of weather; at times it would also float about campus, taking residents to and from classes.

There Goes the Neighborhood: *Not*

Real Estate Research Debunks Affordable Housing Myth

A recent report from MIT's Center for Real Estate debunks the popular notion that affordable housing developments inevitably depress the values of nearby single-family dwellings. Indeed, the research found that mixed-income, high-density rental developments—so-called 40B developments—have no adverse effect at all on nearby property values.

The research was conducted as part of MIT's Housing Affordability Initiative, a long-term commitment of the Center for Real Estate and the Department of Urban Studies and Planning. The initiative is designed to focus MIT's resources on housing affordability in the Boston metropolitan area, especially in the areas of economics, planning, finance, architecture and engineering.

Under the leadership of director Henry Pollakowski, researchers studied seven affordable housing projects in six suburban towns near Boston, deliberately chosen because they included some of the most dense and controversial 40B efforts completed in Massachusetts between 1980 and 2000.

To delineate the impact areas for each development, the researchers tapped zoning and land use maps, aerial photographs, road atlases, site visits and meetings with local officials. Then they compared the property values in the impact areas with values in the rest of the town, using data from 36,000 property sales between 1982 and 2003. The results, while striking, were not surprising. In all cases, house price movements in the impact areas simply tracked those in nearby markets.

To see the full report, visit the Center's website at web.mit.edu/cre/.

Kimball Court, Woburn, MA



Zoe Weinrobe

A MONTH IN MOZAMBIQUE FULFILLS NEW PLANNING REQUIREMENT

STUDENTS WORK WITH AFRICAN NGOs ON WATER SANITATION AND HYGIENE

Gabrielle Kruks-Wisner



Nine students from the Department of Urban Studies and Planning, along with two engineering students from Cambridge University in England, spent a month in Mozambique this summer working on water and sanitation planning in low-income neighborhoods.

The project was part of a practicum initiated last spring by Jennifer Davis, Assistant Professor of Development Planning, as one way for MCP students to fulfill a new requirement. While the MCP program has a long tradition of offering practicum courses, providing field experience in the practice of city and regional planning, the program requirement is new.

Designed to help students put theory into practice, practicum courses are offered in the summer between the first and second years, and also sometimes during IAP. In years past they have been conducted in China and the Netherlands, as well as domestically, but this was the first of the practica ever to take place in Africa.

During the spring semester, students reviewed the literature on environmental sanitation, public health, urban upgrading and community-driven planning, while also becoming familiar with Mozambican history, culture and political structure, and with planning processes in Maputo, the capital city. The students also all took Portuguese, a huge commitment on their part, as well as a separate water sanitation planning course also offered by Davis.

Students were assigned to one or more workgroups, each of which developed data-collection or participatory assessment tools that the group role-played and refined during their weekly sessions last spring. The team then brought these tools to Maputo in June, where they partnered with two Mozambican NGOs, as well as with the staff of the water department in Maputo, to undertake an assessment of water, sanitation and hygiene in several of the city's low-income neighborhoods. The students trained their partners in the set of qualitative and quantitative assessment methods that they had developed.

The data that were collected during the month-long field project are being used as a basis for developing action plans to improve water and sanitation services to Maputo's

Anna Brown



The Problem and the Partners
Maputo and the NGOs

Located on the east coast of southern Africa, Mozambique is one of the poorest countries in the world. Fully 60% of the people live below the poverty line, fewer than a third of women adults can read or write and life expectancy is 37. In 2003, the government estimated that less than half the population had access to safe drinking water and adequate sanitation.

For the past eight years, two organizations have worked in Mozambique's rural areas on water and sanitation issues—Estamos-Organização Comunitária, a Mozambican NGO, and WaterAid, an international charity dedicated exclusively to the provision of domestic water, sanitation and hygiene education in the world's poorest countries. Both have recently established offices in the capital and are now working on water supply services in five Maputo *bairros*.

Given the early stages of engagement with the *bairros*, the practicum team was not able to evaluate the implementation of the plan that was developed, but it is hoped that this summer's experience will evolve into a long-term partnership that will allow for follow-up and for building on this experience.

poor. The plans include not only 'hardware' recommendations such as the installation of borewells and on-site sanitation facilities, but also institutional and policy strategies. The team was able to document, for example, that a substantial proportion of households in the communities visited are not being served in accordance with national water policy.

During the spring semester, each student kept a journal of notes and reflections, in response to assigned questions on such issues as strategies for working effectively with NGO partners and hypotheses regarding underlying causes of the sanitation problems in Maputo. Students were asked, for instance, to imagine themselves in the field, describing the scene as if they were writing an email home, as a way of uncovering preconceptions about Mozambique, slums, etc. The objective was to make the students more conscious of their assumptions and how those assumptions might influence the planning process.

Funding for the students' travel came from the Program on Human Rights and Justice, the Aga Khan Program for Islamic Architecture, the Public Service Center, Professor Richard Locke and the School of Engineering. The students also won a \$3000 award in MIT's Institute-wide Ideas Competition.

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