

MIT Japan 3/11 Initiative

A PROPOSAL for Disaster-Resilient Planning, Design & Reconstruction
from the MIT Japan Program at the MIT Center for International Studies



Minami Sanriku, Miyagi Prefecture Post-3/11/2011 宮城県南三陸町

photo by Time Inc.

Our Response:

- **Disaster-Resilient Planning, Design & Reconstruction**
- **Inter-University Exchange (iUP)**

In the aftermath of the triple disaster suffered in Tohoku, northeastern Japan, the MIT-Japan Program at the Center for International Studies will establish a mechanism to exchange faculty and students between MIT and universities in Tohoku and Japan with the collaborative goal of mobilizing the study and implementation of Disaster-Resilient Planning, Design & Reconstruction initiatives.

Beginning in June 2011, the MIT Japan 3/11 Initiative Team will work with the leaders of local governments and residents, NGO affiliates, and consulting professionals to map out a plan of action for the near and long-term paths to recovery – the immense task ahead of rebuilding the widespread devastation of homes, communities and loss of livelihood to this region.

Project:

The MIT Japan 3/11 Initiative Team will direct its assistance specifically to the town of Minami Sanriku (population 10,700) one of the hardest hit by the M.9.0 earthquake and the unsurpassed tsunami which ensued. The Team will join with others to carry out two primary set of activities spread over the next five years:

I **Memorial Community Center** design & construction: 2011 summer start

Built with the people of Minami Sanriku, a much-needed Community Center which can also serve to memorialize this place of disaster underlies the core of the project's proposal. The diverse locations of temporary housing currently being constructed for displaced persons will fragment families and neighbors, the town's center of activity will be absent, and daily activities outside the temporary shelters will be dispersed.

A substantial public building will both symbolize the town's resurgence of hope and will accommodate practical community needs for the town rising out of its vast ruins. The Memorial Community Center will include outdoor public gardens, an information center, relief agency facilities, a daycare, kindergarten, eldercare center, shops for produce vendors, workspaces and multi-purpose lofts, a podium for events, a public bathhouse, an arbor. The young and old can pitch in with their skills and enthusiasm, utilizing non-flammable wood from the region's forests and stones of *Ishi-nomaki* keeping in mind a structure earthquake-strong and away from tsunami inundation. The MIT Japan 3/11 Initiative Team will start this summer with design workshops, off-site component fabrication and a kit-of-parts for shipping and assembly. Such a structure may outlive well beyond the two years slated for the duration of people residing in temporary housing.

II Alternative Visions for Resettlement & New Communities

comprehensive planning & implementation: 2011 Summer – 3-years+

Questions, doubts and confusion will persist as to the rebuilding or relocating of displaced persons. Should people rebuild their houses in the lowland areas where it may be convenient and necessary for the local fishing industry but dubious for permanent homes? Where are the safe havens? Should the beautiful shoreline, the coves, the islands and horizons reaching out to the sea be cut off from eye-level by a higher than 10-meter concrete seawall? In addition to the abundant oyster, abalone, *konbu* and fishing industry, Miyagi-ken's major economy is its scenic coastline attractions. As Mayor Sato envisioned aloud his town's future, he asked himself whether previous streets, building regulations, land-use, and public infrastructure are what ought to be replicated.

The MIT Japan 3/11 Initiative Team will begin this summer studying these myriad options to assist in the planning and implementation of alternative strategies for disaster-preparedness as well as sound ecological community building in an era of climate change and sustainability. Such a process will require improved decision-making tools and the project's longer-range engagement intends to equip the local governments, grassroots organizations and citizens particularly in interpreting the anticipated top-down mandates expected from Japan's central government. The project's outcome as well will hopefully serve as a model-case for countless other regional coastal and valley communities found throughout Japan.

The MIT Japan 3/11 Initiative Team

To accomplish this undertaking, the MIT Japan 3/11 Initiative Team will be comprised of faculty and students from MIT, Miyagi University and will be joined by other affiliates universities in Tohoku and Tokyo.

MIT architecture faculty members, Shun Kanda and Jim Wescoat, will work closely with Yoshihiro Hiraoka of Miyagi University, a collaboration begun immediately following 3/11/2011. In the months ahead, with the additional multi-disciplinary participation of other MIT faculty members and students, MIT hopes to play the same crucial and constructive role it had in the aftermath of the Haiti earthquake.

The MIT team will expand its group of Japan-side collaborators with faculty and students including Tohoku University, University of Tokyo, Tokyo Institute of Technology, Waseda University, Keio University, Tokyo Geidai, and Kyoto University of Art & Design among others.

This core group, under the direction of Shun Kanda, will organize and carry out the project in collaboration with Miyagi University, the local government and people of Minami Sanriku.

(a brief background of the above faculty is listed at the end)

Schedule, Activities & Output

2011 Current:

On April 20th, the Mayor of Minami Sanriku officially requested the President of Miyagi University to cooperate in the reconstruction efforts of his city. While the activities of the MIT Japan 3/11 Initiative may include aid assistance beyond a single community, an identified site-specific collaboration with this particular city strongly aligns with this project's goal of engaging directly at the localized grass-roots level of cooperation.

On May 3rd, Shun Kanda visited the site of Minami Sanriku and conferred with Mayor Jin Sato, officially offering the assistance on behalf of the MIT Japan 3/11 Initiative. The mayor himself was a survivor of the tsunami and pledged a speedy recovery for his people and the local economy. He especially discussed the need for possible alternative planning strategies for future disaster mitigation which may or may not be addressed by the reconstruction directives from the central government.

Within days of 3/11 and continuing today, Professor Hiraoka and his multi-disciplinary Miyagi University team have been tirelessly attending to the extensive on-site survey of the Minami Sanriku region including data-gathering, interviews with those at evacuation centers, liaisons with the various task forces, local leaders, public officials. Clean up continues, partially restored roads have allowed the delivery of goods, materials and the initial phase of temporary shelters are well underway.

The MIT Japan 3/11 Initiative Team is in constant communication with Professor Hiraoka updating relevant information preparatory to the commencement of work in June. Student teams are being selected, and strategy meetings are underway among the core members of the collaboration.

Year ONE: March 2011 – March 2012**2011 Summer: Workshops in Planning, Design and Construction**

- Led by Prof. Jim Wescoat and Shun Kanda, a joint team of MIT, Miyagi U. and Keio will visit Utatsu, in Minamisanriku to conduct an on-site Rapid Visual Site Analysis using the Transect Method developed by Prof. Wescoat. The team will produce a report of analysis and selection of potential sites for the location of future community center. This material will be published as a book and will be posted on our website.

2011 Fall: Inter-University Exchange

- Workshops with a Consortium of Japanese Universities
Partial completion of the Memorial Community Center & the continuation of the planning of Alternative Visions for Resettlement & New Communities begun in the summer will continue. To the extent possible, innovative small community centers will be built as the needs of the temporary housing residents are identified. The "Babadoru 5-chome" which was constructed at Heisei no Mori Temporary Housing site in Utatsu is one such example. Built by volunteers and community.

2012 Spring: MIT Architecture Design & Planning Workshop

- Workshop studio jointly with the Media Lab based at MIT furthering the planning of Alternative Visions for Resettlement & New Communities under the direction of Shun Kanda and Kent Larson. Spring break on-site visit to Minamisanriku.

Year TWO: March 2012 – March 2013**2012 Summer: Workshops in Planning, Design and Construction**

- Inter-university exchange and workshop on the design and construction of additional phases to the Memorial Community Center with emphasis on enhanced local community participation in its construction with concurrent similar engagement by citizen groups on the issues of Alternative Visions for Resettlement & New Communities. The MIT Japan 3/11 Initiative Team continues their leading role with local leaders and Miyagi University.

2012 Fall: Inter-University Exchange

- Workshops with a Consortium of Japanese Universities
Year two of the planning of Alternative Visions for Resettlement & New Communities continue under the direction of Shun Kanda assisted by Jim Wescoat and Yoshihiro Hiraoka and consultants with students from a consortium of universities in Tohoku and Tokyo and the people of Minami Sanriku. Primary activities center on developing the innovative curriculum in Disaster-Resilient Planning, Design & Reconstruction with case-studies, on-going response to the future vision for Minami Sanriku and particular implementation strategies.

2013 Spring: MIT Architecture Design & Planning Workshop

Workshop studio jointly with the Media Lab based at MIT furthering the planning of Alternative Visions for Resettlement & New Communities under the direction of Shun Kanda and Kent Larson. Spring break on-site visit to Minamisanriku.

Each session above will result in a report and physical construction with continuity sustained by the MIT Japan 3/11 Initiative Team and the town of Minami Sanriku.

Year THREE 2013 Spring, Summer, Fall

Year FOUR 2014 Spring, Summer, Fall

Year FIVE 2015 Spring, Summer, Fall

By Year Three, as anticipated currently by the central government, residents will gradually transfer out of their temporary housing and resettlement work will be readied and taking shape incrementally. Recovery and reconstruction of new communities will certainly be realized over a much longer duration of years to come. We shall have to see how the products of the MIT Japan 3/11 Initiative gets implemented and internalized by the local leadership and citizenry and our mutual work will continue.

It is hoped that the consortium of universities in Japan will have adopted the innovative curriculum of Disaster-Resilient Planning, Design & Reconstruction directed by MIT's initiatives. Over the longer term, the accumulating results of the MIT Japan 3/11 Initiative will bring into significance an educational model brought into focus however unfortunately by the recent devastation suffered by the triple disaster of Tohoku. Ultimately, these initiatives may serve as a demonstrative project for disaster preparedness and with equal significance, the ecological prototype for a much neglected resurgence of the untold imminent demise of regional communities across the valleys and sea-coasts throughout Japan.

Projected Budget: see attached

This proposal constitutes the first step in enabling MIT's response to the unprecedented crisis facing Japan in the coming months and years ahead. It is our aim to seek additional and sustaining financial resources within and outside MIT from institutions, foundations in the U.S. as well as government bodies and private enterprises in Japan.

Principal Participants:

• **Richard Samuels** is Ford International Professor of Political Science and director of the Center for International Studies. He has been head of the MIT Political Science Department, Vice-Chair of the Committee on Japan of the National Research Council, and chair of the Japan-US Friendship Commission. He has also been elected to the American Academy of Arts & Sciences. His most recent book, *Securing Japan: Tokyo's Grand Strategy and the Future of East Asia*, was a finalist for the Lionel Gelber Prize for the best book in international affairs. Machiavelli's Children won the Marraro Prize from the Society for Italian Historical Studies and the Jervis-Schroeder Prize from the International History and Politics section of American Political Science Association. Earlier books were awarded prizes from the Association for Asian Studies, the Association of American University Press, and the Ohira Memorial Prize. His articles have appeared in *Foreign Affairs*, *International Security*, *International Organization*, *Journal of Modern Italian Studies*, *National Interest*, *Journal of Japanese Studies*, and *Daedalus*. In 2011, he was awarded the Order of the Rising Sun from the Emperor of Japan.

• リチャード サミュエルズ

MIT 教授 ・政治学部 ・代表 MIT Japan 3/11 Initiative

現在、MIT 国際研究センター所長、MIT 日本研究プログラムの創設者および初代所長。

過去の実績にはMIT 政治学部長、日米友好委員会の会長。1980 年、MIT より政治学博士号を取得。日本研究に関する論文は多数にあり高く評価されている。書物代表作としては邦訳『日本防衛の大戦略—富国強兵からゴルディロックス・コンセンサスまで』、『富国強兵の遺産:技術戦略に見る日本の総合安全保障』、『日本における国家と企業—エネルギー産業の歴史と国際比較』その他、日米政治学に関して日本国内で数多く出版されている。また、2011年秋には日米関係の研究に対する貢献により、旭日重光章を受章。

• **Shun Kanda** is a Tokyo native and MIT Department of Architecture faculty member since 1979. He has directed the MIT Japan Design Workshop's "*Continuity & Transformation in Architecture and Community Design*" since 1990, working with his MIT architecture students and university counterparts in Japan developing sustainable models for urban and regional communities in various locations in Japan. Kanda is associated and works closely with the MIT-Japan Program as Director of Architectural Studies. He has been appointed as a Distinguished Visiting Professor at Keio University for Fall 2011-13.

• 神田 駿

MIT 教授 ・建築+都市計画学部 ・ディレクター MIT Japan 3/11 Initiative

現所属: 米国マサチューセッツ工科大学。専門分野: 建築+都市設計、環境デザイン、創造教育、国際学術交流。1960年留学の為渡米、卒業後ヨーロッパ、中近東、北アフリカ等に游学、日本帰国後、再渡米し、ハーバード大学建築学科修士課程終了。アメリカと日本における建築設計及びアーバンデザイン、環境デザイン、地方市町村再生などの仕事を手がけ現在に至る。日本国内においての設計事業には大阪府りんくうタウン再基本計画、みなとみらい21横浜クウィーンモール街基本設計、幕張新都心集合住宅基本設計、金沢市夜間景観計画、等がある。その他、早稲田大学、京都芸術造形大学、筑波大学、慶應義塾大学SFC、東京工科大学等で建築学教育者として関係を持ち続けている。本年度はMIT Japan 3/11 Initiativeのディレクターとして宮城大学と復興支援共同作業に努めるためこの秋からは仙台在。日本国籍、米国永住権: 在ボストン

• **Patricia Gercik**, associate director of the MIT International Science and Technology Initiatives (MISTI), Executive Director of the MIT Japan Program, and is the Japan 3/11 Initiative's program coordinator and overseer of fundraising efforts.

• **Jim Wescoat**, landscape architect and Aga Khan Professor in the MIT Department of Architecture, brings years of distinguished experience in the area of disaster relief planning & design and is widely known for his studies of India and Pakistan. He consults for the World Bank, and has been a speaker at the Davos Conference on the global issues related to water-management. Wescoat has published extensively on his research, and recognitions including the National Academy of Environmental Design, the National Research Council and a past Rome Prize Fellow.

• **Yoshihiro Hiraoka** of Miyagi University will be the primary collaborator in Tohoku. An architect, researcher and community designer, Professor Hiraoka and his team of faculty and students have begun the arduous task of disaster relief from the earliest days following 3/11. Having spent several months visiting MIT, it was on his last day in Boston when the tragedy hit at his hometown of Sendai. Professor Hiraoka will continue to act as the team's chief coordinator with MIT, and the people and resources at Minami Sanriku

• **Jin Sato**, Mayor of Minami Sanriku, Miyagi Prefecture has officially requested the President of Miyagi University for their cooperation in the reconstruction efforts of his town. Shun Kanda met with the mayor and his staff on May 3rd to survey the progress of the region's disaster recovery and discuss the way forward.

Other associated MIT Faculty & Affiliates :

• Saya Suzuki	Field Research Assistant, MIT Japan 3/11 Initiative Team
• Kent Larson	Principal Research Scientist, MIT Media Lab
• Ute Meta Bauer	Program Director, MIT Art Science Technology
• Joel Lamere	Faculty, Architect, MIT Department of Architecture
• Jegan St. Vincet de Paul	Faculty, MIT ACT Program
• Adele Phillips	Ph.D. United Nations University, MIT MArch 2009
• Ryan Chin	Ph.D. Research Associate, MIT Media Lab
* Nancy Angoff	Assistant Director, Office of Foundation Relations



Shizugawa, Minamisanriku, Miyagi Prefecture Post-3/11/2011 宮城県南三陸町志津川

photo by Shun Kanda



Location of Minamisanriku and Miyagi-ken

from Google Map