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

Our Response:

- Disaster-Resilient Planning, Design & Reconstruction
- Inter-University Exchange

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 – 5-years+

Questions, doubts and confusion will persist as to the rebuilding or relocating of displaced persons. Should people rebuild their homes 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. Hiroto Kobayashi of Keio has been invited as primary participant to the MIT Japan 3/11 Initiative Team. 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.

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

2011 Summer: Workshops in Planning, Design and Construction

- Active Base of Operations On-Site and at Tané

To the extent possible, on-site fieldwork to assist Miyagi University’s on-going relief work will be conducted in Minami Sanriku this summer. Anticipating limited on-site resources however, the bulk of workshop activities will be centered elsewhere– 500’ kilometers southwest at Tané in Shiga Prefecture. (See below for an explanation of the Tané site.) Members of the Team and others will convene at Tané to carry out the project for the design and fabrication components of the Memorial Community Center.

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, under the direction of Shun Kanda assisted by Jim Wescoat, Hiroto Kobayashi and other consultants with students from a consortium of universities in Tohoku and Tokyo and the people of Minami Sanriku.
2012 Spring: MIT Architecture Design & Planning Workshop
Workshop studio based at MIT expanding the design options of the Memorial Community Center and furthering the planning of Alternative Visions for Resettlement & New Communities with additional inclusion of a multi-disciplinary team of faculty and students at MIT. Spring break on-site visit to Minami Sanriku for a joint workshop with Miyagi University faculty and students.

Year Two
2012 Summer: Workshops in Planning, Design and Construction
- Active Base of Operations On-Site and at Tané
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, Hiroto Kobayashi 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 based at MIT emphasizing strategies and proposals on Alternative Visions for Resettlement & New Communities with additional inclusion of a multi-disciplinary team of faculty and students at MIT. Spring break on-site visit to Minami Sanriku for a joint workshop with Miyagi University faculty and students and a preliminary public presentation to the Mayor and local community.

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 Summer, Fall, Spring
Year Four   2014 Summer, Fall, Spring
Year Five   2015 Summer, Fall, Spring

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
- 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.

The MIT Japan Workshop
Since 2006, the MIT Japan Design Workshop under the direction of MIT’s Shun Kanda and the Kobayashi Laboratory of Keio University with the people of Tané, have been conducting joint sessions on a project dealing with a crisis of a different urgency, one Kanda refers to as a “slow disaster” in the making. As is true with hundreds of other rural settlements across Japan, Tané is facing a systemic erosion of its very existence. Despite its centuries-old village settlement, endemic population depletion accompanied by un-managed forest, water and field resources, forecasts an imminent and unfortunate demise. “To Live in Tané” underscores the MIT & Keio University’s initiative at developing models for alternative futures guided by improved management of the surrounding ecology, a revived resident population and the introduction of an educational center for environmental design.

- Jim Wescoat, landscape architect and Aga Khan Professor in the MIT Department of Urban Studies & Planning, brings years of distinguished experience in the area of disaster relief planning & design widely known for his studies of India and Pakistan. 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.

• **Hiroto Kobayashi**, an architect and on the faculty of Keio SFC University’s School of Media Governance & Policy, co-director with Shun Kanda since 2006 of the Tané Initiative and MIT’s counterpart in the Japan Design Workshop. Kobayashi holds a M.Design and D.Design from Harvard Graduate School of Design. He is Principal of KMDW in Tokyo.

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**Tané as the Base of Operations for the MIT Japan 3/11 Initiative:**

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Tané holds the capacity to serve as an on-going base of operations for the MIT Japan 3/11 Initiative. By timely coincidence, the MIT Team can align its current activities at Tané with the MIT Japan 3/11 Initiative: tragedies of a different origin hold converging common goals for a restored sustainable community. The following factors demonstrate how Tané makes sense as a base of operations for both the immediate and longer-range goals:

- Displaced families from Tohoku are now being relocated and welcomed into the homes of Tané coordinated jointly by the villagers and students of Keio University
- Wood manufacturers who lost their livelihood in Tohoku may now join forces with Shiga Prefecture’s timber association in the recovery of their economic base
- Tané’s more than fifty vacant houses, the under-utilized thirteen community centers, and (after renovation) the depopulated elementary school building can serve as lodging and workspaces for the participants of the MIT Japan 3/11 Initiative
- A solid working relationship with the resident leadership of Tané and the annually-held MIT Japan Workshop exists after five years of collaboration
- Advanced preparatory work is underway with the two MIT alumni currently in-residence at Tané: Fulbright Scholar Adele Phillips, M.Arch 2009 and Ira Winder, BSAD 2010 & MISTI intern.
- The support of Governor Kada of Shiga Prefecture, an environmental ecologist, and the mayor’s office of Nagahama City, the governing seat of Tané
- Affiliations with Shiga University’s environmental design faculty & students
- A widening network of educators, public officials, and citizen-groups actively concerned with the future survival of regional communities and landscapes such as Tané and places throughout Japan even after the successful outcome of Tohoku’s revival