

MIT Japan 3.11 Initiative Year Two . 2013

Two years ago, we witnessed an earth-shifting quake, devastating tsunami, and nuclear meltdown—a triple catastrophe with no precedent that is now simply called "3.11".
3.11 has galvanized a worldwide call to aid, an effort in which I am proud MIT has been a part. At the urging of then-President Susan Hockfield—and with the special creativity of Shun Kanda from the Department of Architecture—the MIT-Japan Program launched the MIT Japan 3.11
Initiative. From across the Institute, faculty and students acted together in providing seed funds

and time. Our initiative also has captured the interest and appreciation of colleagues in Tohoku, from university and professional counterparts to the extraordinary residents of Minamisanriku. We are eager to continue this initiative and to demonstrate the special warmth we all feel for the people of northeastern Japan.

> **RICHARD J. SAMUELS** PRINCIPAL, MIT JAPAN 3.11 INITIATIVE

In the two years since the 3.11 disaster in Tohoku, Japan, the MIT Japan 3.11 Initiative has been hard at work collaborating with the community leaders and residents of Minamisanriku to rebuild their future. The work presented in this publication represents some of the important milestones from 2012, generously supported by the Japan Foundation's Center for Global Partnership. On behalf of the entire 3.11 Initiative team, I would like to express our gratitude to CGP for making our activities possible so that we may continue serving the people of Minamisanriku.

> SHUN KANDA DIRECTOR, MIT JAPAN 3.11 INITIATIVE

Generous support for these projects were provided by The Japan Foundation Center for Global Partnership



# before

南三陸町は、宮城県の北東部、本吉郡の南端、仙台市内から車で2時間ほどのところにあります。東は太平洋に面し、三方を標高300-500mの山に囲まれており、海山が一体となって豊かな自然環境を形成、沿岸部はリアス式海岸特有の豊かな景観を有し、南三陸金華山国定公園の一角となっています。いわゆる町村合併により、2005(平成17)年に志津川町と歌津町が合併してできた町で、人口は約1万5千人(2012年12月現在)です。



Minamisanriku in May 1994 航空写真 南三陸町 震災前(1994年5月7日撮影)

# after

2011年3月11日の東日本大震災では、高さ15.9mにも達した大津波による被害が甚大で、死者・行方不明者数838人、住宅・建物被害(全壊数+半壊数)は3316となっています(2012年10月31日現在 宮城県,復興庁HPのデータ)。志津川地区では、地盤が水平方向に約4m移動、約0.7m沈下したことが、GPS(全地球測位システム)により確認されています。



In March 2012 航空写真 南三陸町 震災一年後(2012年3月14日撮影)写真提供:㈱写真企画

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# MIT 3.11 Initiative Chronology + Projects



Minamisanriku, Tohoku, Japan 2011 through the present

A magnitude 9 earthquake strikes the Tohoku region of Japan, causing an unprecedented tsunami. Minamisanriku in Miyagi Prefecture was one of the most affected areas.

Within days of March 11, MIT President Susan Hockfield seeks advice from the MIT Japan Program and Center for International Studies.

MIT's response is launched by the MIT Japan 3.11 Initiative.

Shun Kanda of MIT's Department of Architecture meets with Mayor Jin Sato of Minamisanriku and Masaru Nishigaki, president of Miyagi University, to discuss working partnerships.

Japanese Disaster Relief Fund Boston and the Fish Family Foundation provide a challenge grant, enabling the Initiative to get underway. The MIT Japan Workshop travels to Minamisanriku to engage in Rapid Visual Site Analysis and the preliminary design of a Memorial Community Center.

MIT faculty engaged from several programs plan various disaster resilient courses for the Fall term.

The Japanese newspaper *Asahi Shinbun* showcases the Initiative in "Collaboration of the Japan 3.11 Initiative."

Shun Kanda resides in Sendai to embed with its residents and community leaders. Saya Suzuki and Yoshihiro Hiraoka, professor at Miyagi University, are full-time collaborators

Kiyomi Watanabe introduces the MIT Japan 3.11 Initiative to the "Baabadoru 5-chome" ladies in the Heisei-no-mori Temporary Housing site. Construction of the "Baabadoru 5-chome"

James Wescoat and Shun

of Place" for the "Zones of

MIT.

Kanda present "The Beauty

Emergency" lecture series at

"Baabadoru 5-chome"
community center at Heiseino-Mori Temporary Housing
Site, Minamisanriku in
Phases 01 and 02

Meeting with Suzanne Basalla of the American Embassy in Tokyo

The Japanese newspaper Kahoku Shinpo publishes an article on the Baabadoru Mini Community Center

**MARCH 2011** 

SUMMER

FALL

WINTER

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"Scaling New Ground" graduate architecture studio at MIT, taught by Shun Kanda on disaster-resilient design for Minamisanriku  "Resilient Cities" workshop at MIT, taught by Kent Larson and Ryan Chin and based on recovery plans for Minamisanriku  Jegan Vincent de Paul conducts an MIT ACT workshop with school children in Minamisanriku	Construction of "Garden Pavilione" in Baba-Nakayama Temporary Housing Site, Minamisanriku during the May Golden Week  MIT Japan Design Workshop in Minamisanriku, conducted with the University of Tokyo and Miyagi University	Inter-University Program (iUP) workshop in Minamisanriku with MIT, Miyagi University, University of Tokyo, University of California-Berkeley, and the University of Gloucestershire  Sustainable Cities Symposium in Yokohama sponsored by Nikkei BP, with a talk entitled "Beyond 3.11" by Shun Kanda	"Past/Futures: Everyone's Stage" graduate architecture studio at MIT, taught by Shun Kanda and Matthew Bunza with a site visit to Minamisanriku in March over spring break	"Beyond 3.11_nx" Lecture by Shun Kanda at Columbia University CJR symposium on March 10th  "Beyond 3.11" Symposium at MIT on March 14th, with speakers including Professor Richard Samuels, Shun Kanda and MIT Sloan School student Mio Yamamoto	"MIT Perspectives on 3.11" Symposium, at the University of Tokyo on March 25th, with speakers including MIT Professors Richard Samuels, James Wescoat and Joseph Sussman  3.11 Tsunami Banner erected in the MIT Media Lab during the week of March 14th commemorates the 2nd anniversary of 3.11
SPRING 2012	SUMMER	FALL	SPRING 2013		

MIT Japan 3.11 Initiative work continues...

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## Baabadoru 5-chome Project: "The Alley as Community" 「バーバドール5丁目」プロジェクト

ポポロ・プロジェクト Popolo PROJECTs 2011-2012 BUILT

そこに暮らす住民1人ひとり が参加し、コミュニティーが 復興することに焦点をあてた 第三の場の支援である。震災 後の異常な状況において、被 災者は、その暮らしにどのよ うに社会性をもてるのかとい う課題をもち、その取り組み として、私たちが実践に関わ った2つの「小さなみんなの 舞台」プロジェクトを紹介す る。これらは、住民の方々の お声がけによって始まり、彼 等自身が望む場所に、彼等の 使い勝手に応じた、集いの 場つくりのお手伝いである。







仮設住宅に移動してからご近所にな ったという数人の中年女性が、ベン チに腰掛けては世間話に花をさか せ、時には現状に憤怒落胆している 一ル5丁目」はその好例である。冬 光景を目にすると、そうした状況こ そが多様な世代が集うコミュニティ



思えてくる。歌津地区「平成の森」 仮設住宅団地に無機質に居並ぶ仮設 住宅棟間の通りの一つ、「バーバド の気配が近づく時候、何気なく置 かれたベンチに地元の中年女性達 一の核となっているのではないかと が集っている際、知人の招きを受



けて、私たちはその「おじゃっこ( お茶のみ)」に参加させて頂いた。 彼女達は仮設暮らしの日常に彩りを 与えてくれるこの屋外での団欒の時 を、これから迎える冬にも続けたい のだと熱く語る。そうして、風雨や 雪を防いで、暖かく座り続けられる

In the fall of 2011. Shun Kanda led a team of student volunteers from Keio University, Miyagi University, Japan Women's College, MIT alumni, and others to build a minicommunity gathering place at the Heisei-no-Mori Temporary Housing Site in Utatsu, Minamisanriku. Built over three days in the alley between two rows of housing, this outdoor sitting place brought neighbors together for tea, friendly chats, and the convergence of visitors. Named "Baabadoru 5-chome" by the residents, this was to be the seed project for MIT Japan 3.11 Initiative in rebuilding their social and psychological solidarity among the survivors of the 3.11 disaster.





ような集いの場づくりのお手伝いが 始まった。そのお声がけから2 週間で設計、調整、資金集めを行っ た後、Dream teamの集結により3 日間で落成された。



敷地:南三陸町歌津地区「平成の森」仮設 住宅団地 建設時期:2011年秋期 協力: MIT Center for International Studies, Atsuko Fish / The Fish Family Foundation of Boston,



Joanne Fallon、渡邊喜代美、バーバドール5 丁目のみなさん、宮城大学、Dream team\_01 & 02、その他団体、個人

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## Baba-Nakayama Garden Pavilione Project: "Everyone's Stage" 「ガーデンパビリオーネ」プロジェクト

During the Golden Week of May 2012, volunteers from all over Japan joined hands with residents of Baba-Nakayama Temporary Housing and MIT Japan 3.11 Initiative in the building of the Garden Pavilione. Abe Kurayoshi of Nakayama Village and Miura Ichiro of Baba Village collaborated closely with the MIT Japan 3.11 team in this truly community effort. Building materials were assembled from local lumber, bamboo, roof tiles reclaimed from the village rubble. and the area was landscaped with rocks and plants from now-perished homes. The Pavilione continues to serve both as a small memorial and as a frequent gathering place for the aging, fishermen, kids and friends from the adjacent resident community. It has been featured by the NHK News, the local papers and town news, and now a video documentary is being produced with funds from the Toshiba International Foundation.

震災から半年後の冬の寒い日、馬場 お付き合いを経て、「パビリオー ネ」は実現した。この時間をかけて を悼み継承するという思いをも、込 無名だったこの場所は、今日、「パ

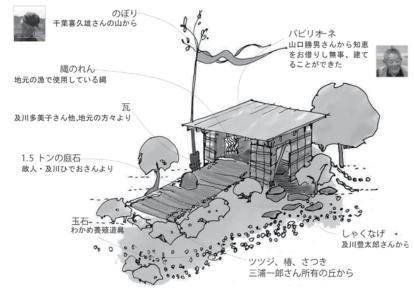




共に築いたプロセスが、パビリオー められている。落成日、建前を祝う 中山集落の契約会長くらさん、いち ネという舞台を通して、様々な人と 南三陸伝統の「謡」の披露、おばあ ろうさんが私たちを訪れた。「仮設 の繋がりを生んだ。建設にあたって ちゃん達は「震災以来、初めてだ」 暮らしのばあさん達のために」とい 集められた「津波瓦礫」に は、生 と言いなが「海の唄」や踊りを楽し う彼等の思いを受け、さらに半年の き残った人々の明日へ向かう思いを んだ。 紡ぎ合わせ、震災という悲劇や故人











ビリオーネ」という愛称をもって、 みんなの場所、みんなの舞台となっ ている。

「Beyond 3.11」展は、パビリオー ネの経験を元にした、被災者の現状 を伝える試みである。このお付き合 いは、「大沼ナチュラ」という新た な課題を通して、現在も深めら れている。

敷地:南三陸町歌津地区馬場中山仮設住宅 隣私有地 建設時期:2012年ゴールデンウィーク協

カ: すばらしい歌津をつくる協議会、馬場中 山契約会、MIT, MIT Japan program, 宮城大 学、Dream team 03、その他団体、個人

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Poster distributed to the Media, Professionals, and Academic Institutions in the Tokyo area

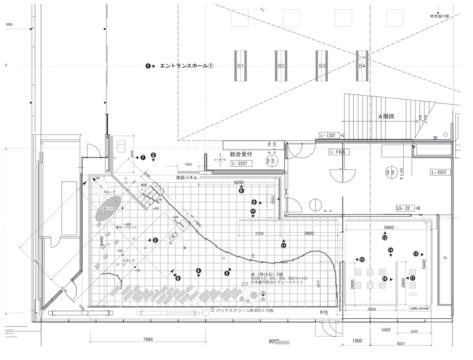


Exhibit Layout Plan

# Beyond 3.11 南三陸 Exhibit



Exhibit at Gallery A4 Tokyo, Japan February 2 - 28, 2013

Generous support for this project was provided by The Japan Foundation Center for Global Partnership



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#### Introduction to the Exhibit

The faces of the survivors, the now-silent beauty of the coastline – these are what loom into our view beyond 3.11, in spite of the unforgiving tsunami which swept away all the past. "Disaster" is what occurred here, yet these people's lives and their beloved habitat, we believe, will endure. With two years behind us, heading now into the third year of recovery assistance, the MIT Japan 3.11 Initiative is directing its actions toward the year 2050.

In this exhibit, we decided to convey the state of mind of the people of Minamisanriku facing their future – their life beyond 3.11. The Baba-Nakayama Temporary Housing site is the setting of such a narrative. As we got to know more from working together in the building of their "Garden Pavilione," it was inevitable that we soon realized how they spent each day fraught with anxieties of a yet ill-defined path to recovery. Our objective would be fulfilled if as a visitor to the exhibit, you might step a bit closer than when you arrived, to sharing their current predicament.

"Going down to the sea" is a local fishermen's expression. Days and weeks following the catastrophic tsunami, many looked away fearfully, some with deep hatred, resisting to go down to the sea. At a safe higher ground, the Garden Pavilione - rekindling the past, the disaster, and the future – was built facing the sea. Today, the temporary housing residents, survivors all, gather informally here, a place to sit and chat – a Stage for All, seeking to define what lies beyond the far horizon.

The wooden terrace within this exhibit slopes down toward the inundated lowland leading away to a dimly-lit distant vista. Rice fields, homes, and places of work once occupied this view. In the space of their absence today, residents are pressed to decide the fate of their lost livelihood, the height of a seawall against another tsunami, the relocation of their new homes. Multiple, compressed anxieties cloud clear foresight. A new day seems yet out of easy reach...

On the **Sloped Terrace**, as you move about slowly, hesitantly, there are **Debris MEMOs** strewn across the floor. Lifting to open Portals as you sit, you will find **iPad videos** buried beneath depicting volunteers constructing the Garden Pavilione. **Sky MEMOs** dangle on yellow clips from the ceiling with brief messages. You are present in time and spirit, on the stage with those in Mianamisanriku.

Venturing out beyond the terrace to the lowland lying ahead, stepping onto the boardwalk, alone, the expanse of a restored bay at your side. This 3.5-meter high by 14-meter wide Panorama foretells a scene of the future ecosystem, a resilient natural environment in balance with the renewed life of the region in the year 2050. Pausing at a larger stepping stone, a video "Remembering That Day" projects down from above you – catch to focus the moving imagery, holding the panel in your hands. The past/FUTUREs of the place and the people of Minamisanriku – Beyond 3.11.

> CONT'D

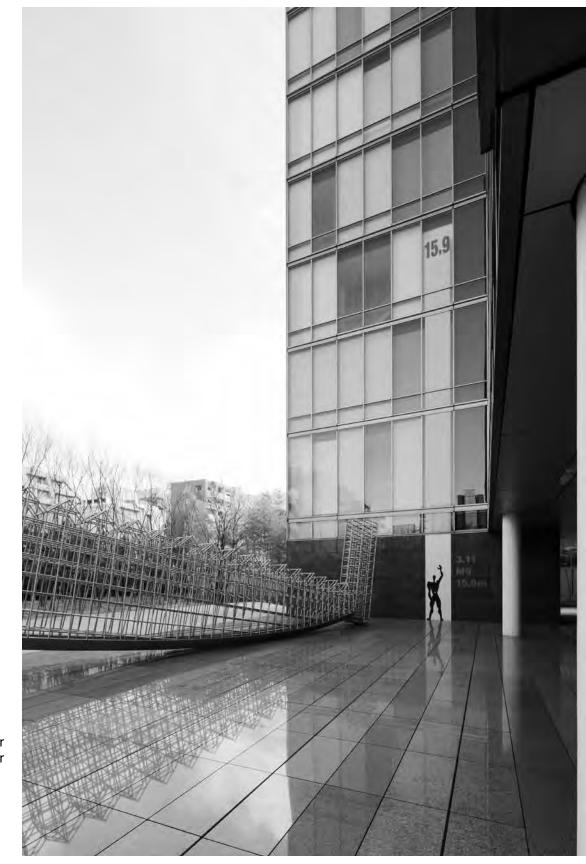
Approach to Takenaka Corporation, Tokyo







Exhibit banners in the Main Lobby



15.9 meter Tsunami Banner

In the lobby outside the Gallery, three large V-Screen tapestries hang. Viewed by approximately two-thousand people who pass daily through this space, inscriptions refer to the Three Insights:

- I New Ecology at Ground Zero
- II. Scaling New Ground
- III. Year 2050 Pop<10k Community

These topics refer to MIT Japan 3.11 Initiative's current realizations for the longer-range planning strategies required for a sustainable recovery of Minamisanriku.

As you had arrived at Gallery A4 today, a 15.9-meter Yellow Banner greeted you at the building's façade. Mere numerical notes are abstract to our perception, almost inappropriate, if one were to really imagine the magnitude of the tsunami on March 11, 2011. This exhibit hopefully may have immersed each visitor with the felt-reality of the immensity of the tragedy and its aftermath.

Our participation in the post-3.11 recovery activities have been enabled by the steady collaboration and generous support of so many - individuals and institutions within Japan and from abroad who joined in this concerted commitment to the recovery and reconstruction of Tohoku.

We dedicate this exhibit to all our friends in Minamisanriku. We owe our inspiration especially to the husband & wife pair of Abe Kurayoshi and Miura Ichiro, of Baba Nakayama. Let us continue to work together.

Gallery A4 of Takenaka Corporation recognized MIT Japan 3.11 Initiative's ongoing work in Minamisanriku and invited us to exhibit. We are most grateful for this opportunity.

For us, this exhibit would not have been possible without the generous funding support provided to us by the Japan Foundation Center for Global Partnership. We owe our sincerest appreciation.

SHUN KANDA FEBRUARY 2013













Left: Sky Memos and Debris Memos

Right: A walk through the exhibit space

: 浸水地域に 新たな 生態系

New Ecology at Ground Zero

>潮を招く > Recall the Sea П.

未来地盤を 築く

Scaling New Ground

>海抜20m >EL.20m=SafeZone III.

2050 年 人ロー万弱 のまち

Year 2050 POP<10k Community

>みんなの 舞台 > dei Popoli

3 つの思想 3 INSIGHTs

MIT Japan 3.11 Initiative

#### 3.11何が起こったのか?

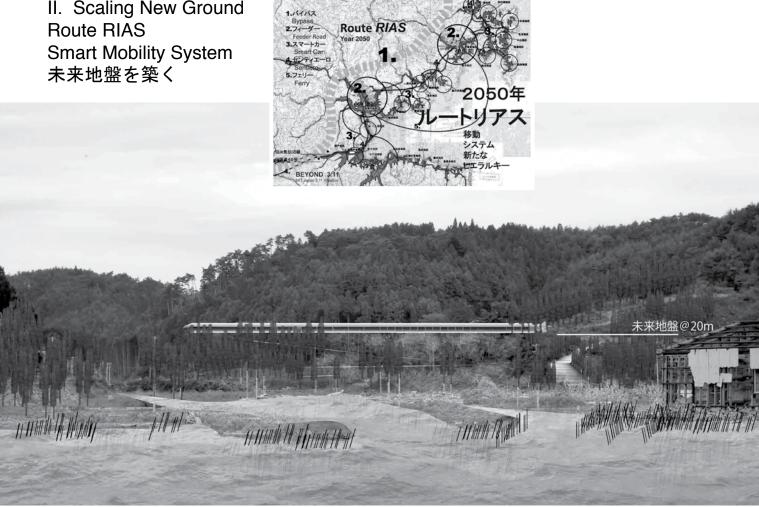
過去40年の間に、自然破壊を伴う開発によって、住居、及びそれに布設される道路、防潮堤、上下水道等が整備された。震災によって、中世、近代からはじまった、人口増加に伴う、湾の埋め立ての歴史は一気に消し去られ、土地の原風景が現れた。こうした地域イ

ンフラが消滅し、今、住民は防潮堤をはじめとする、再来する津波への対策方法の決断を迫られている。今回の津波の浸水範囲が、縄文時代から江戸時代までの海岸線と重なるという事実が、都市に焦点をあてた近代開発による復興の在り方に疑問を投げる。南三

陸町の復興計画においては、海と陸を 一体の自然として捉えることを原点と し、海側からの視点にたち、土地本来 の性質を優先した環境共存の暮らしを 再びかたちづくることが、災害に強 い、持続可能性のある本質的な復興へ の大義となるだろう。

I. New Ecology at Ground Zero 浸水地域に新たな生態系 「バーバドール5丁目」 プロジェクト 内陸から流れてくる3つの河川の河 口に沿って形成される汽水域、河 口と志津川湾の接点となる地域、 つまり、グラウンド・ゼロの沿岸 分を再検証し、そこに適正な規模 の湾と干潟を提案する。海と陸が 有機的な相互関連をもつ志津川湾 において、新たな生態系によった 産業としてのアクアカルチャー、 引いては、経済基盤をともなう地 域社会の可能性を検証する。 Envisioning the future of Minamisanriku / Karin Schierhold and Amna Ansari and the contract of

II. Scaling New Ground



#### 何をすれば良いのか?

今後、極端な人口減少、高齢化が進 行する南三陸町では 、 移動システ ムのヒエラルキーが変容すると仮定 し、小規模な集落の動線を有機的に 繋ぎ、スマートカーを利用した 環境と共生する持続可能なエコ・ラ イフ、地方のスケールにあった暮ら しを提案する。東北三陸海岸は、数 万年から数千年をかけて地形の基

がつくられ、現在のリアス式 の海岸 線が形成された。その恩恵によって しい生活の地盤(=未来地盤)を再建す る。この移動システムでは、これま で沿岸部を貫通していた国道が、山 側の内陸へ移り、そこから沿岸分へ

直交するフィーダー道路を設置し、 海沿いに点在する まちヘアクセスさ 散歩道となる。海と高台を結ぶ動線 であると同時に、センティエーロ構 想として、エコツーリズムの資源と

III. Year 2050 POP <10k Community 人ロー万弱のまち



Left: チンクエテッレ (Cinque Terre, Italy)

Below: 緑豊かなキャンパスライフ



現在、日本列島の人口は、過去最大 そうした背景の中、私たちは、日本 の市町村のおよそ3分の1を占める、 人口1万人以下のまちの未来像を模索 するべく、世界の事例を紹介する。

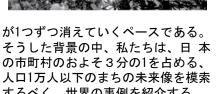
上に取りあげた人口1万人弱の

パナレア島 (Panarea, Sicily, Italy)

イタリア、シチリア島 北東部、エオリア 諸島最小の島。直径2km以下の島には、 観光と漁業を経済基盤とする人口243人の 暮らしがある。独特な自然環境に対して、 中小規模水上インフラの諸島間移動、エコ カーでの近距離移動という、テクノロジー の手近利用によって環境と共存する。保持 される環境の価値は高く、年々、訪問者、 短期滞在者は増加。この小規模だからこそ たらされる暮らしの平穏さが都会のビジネ スマンセレブ、第二の人生のための場とな っている。

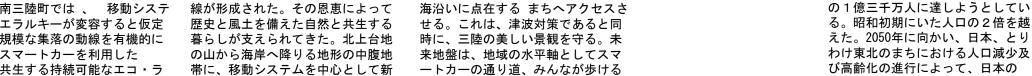
バーハーバー (Bar Harbor, Maine, US)

アメリカ東海岸北部メイン州にある人口 5,235人の小さな漁村。200年程前に発生し たまちは、近代化の中で豊かな自然環境を 活かしたエコツーリズムの場となったも のの、通年の安定した経済基盤や、社会 基盤を支えるために、1969年、人間環境 (Human & Environmental Ecology) を主要課題とするアトランティック大学を 設立。現在、大学は、国際的な補助基盤を 備え、学生364人に対し、教師陣42人で構 成されている。



まちは、環境を母体とする全体の中 に、有機的に構成され、相互が統一 性と関連性をもって機能している。 市町村合併して生きながらえるので

はなく、個々が独自性を保持しなが ら、まちが近隣と共存している。よ り大きな規模の周辺とゆる やかに 連携し、相互補完関係をつくってい る。これら人ロー万人弱のまちは、 引いては、世界規模の広がりの中で 注目されていくであろうローカル・ グローバル(Local Global)の実践 となる。



人口は、およそ20%減少し、1億人を 下回り、人がいなくなるまちが増え ると予測される。これは、これから 先の40年で、毎年静岡市規模のまち

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## III. dei Popoli みんなの舞台

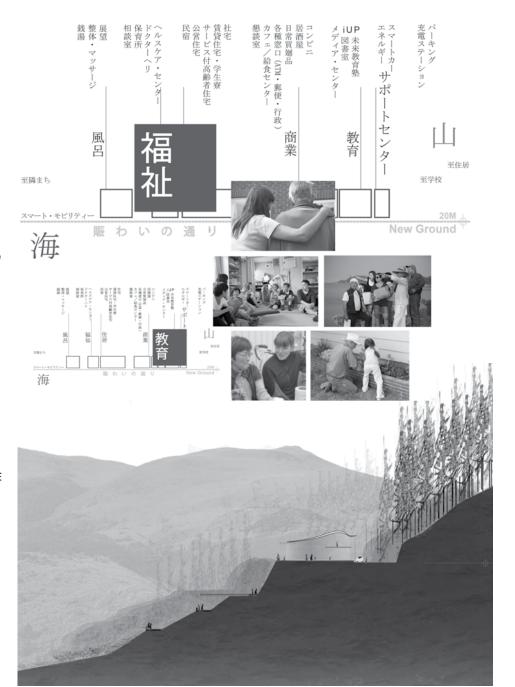


Loggia 回廊



all a STAGE

みんなの舞台は、海抜20メートル= 未来地盤に位置する。海を見下ろす ことができるその高さと近距離性 は、津波に対する安全性と、暮らしにおける安心感を伴う。また、今 後津波が発生した際には、高台へ 人々を導く避難ルートを示す機能 をもつ。

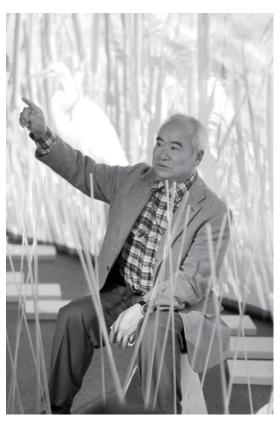






Top: Introduction panel from the A4 exhibit

Right: Goto Kazuma, one of the residents of Minamisanriku





Multimedia displays help the visitors engage with the Initiative's work in Minamisanriku.



Visitors to the exhibit listen to Mr. Kazuma tell the story of his experience during and after the earthquake tsunami.

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SAYA SUZUKI FIELD RESEARCH ASSISTANT, MIT JAPAN 3.11 INITIATIVE

Saya Suzuki is Field Research Assistant for the MIT Japan 3.11 Initiative, responsible for on-site project administration and liaison activities with the MIT Japan Association, partner universities, NPOs, and corporations. After graduating from Keio University with the Shigeru Ito prize, she conducted independent research in MIT's School of Architecture and Planning and later enrolled at IUAV in Venice, Italy.

This Exhibit was funded by The Japan Foundation - Center for Global Partnership

A digital rendering envisioning the future of Minamisanriku / Karin Schierhold



SHUN KANDA DIRECTOR, MIT JAPAN 3.11 INITIATIVE SENIOR LECTURER IN ARCHITECTURE, MIT

Shun Kanda is an architect/educator currently in the design faculty at the School of Architecture & Planning at MIT. He is Director of the MIT Japan Design Workshop and the Veneto Experience\_Italy. Since 2011, he leads a team of faculty and students as Director of the MIT Japan 3.11 Initiative, residing in Sendai a good part of the year.

Exhibit Direction & Concept Design: Shun Kanda Exhibit Design & Coordination: Saya Suzuki

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# "MIT Perspectives on 3.11" Symposium



University of Tokyo March 25, 2013

This event was sponsored by the Center for Global Partnership of the Japan Foundation and chaired by Professor Toshio Otsuki, Professor of Architecture at the University of Tokyo. Professor Takashi Onishi, Professor of Urban Engineering at the University of Tokyo, Chairman of the Science Council of Japan, and member of the Great East Japan Earthquake Reconstruction Design Council, was the discussant.

Immediately after 3.11, the MIT Japan Program raised funds for an "MIT - 3.11 Initiative." Soon thereafter, several faculty members from a range of disciplines, began to do research on the topic. The symposium was designed to share that research and thinking with a Japanese audience—Joseph Sussman's work as a civil engineer, James Wescoat's as a landscape architect, and Richard Samuels' as a political scientist.

25 March 2013 13:00-16:00 2013年3月25日(月)13:00-16:00 #212 in the Building No. 2 of School of Engineering Hongo Campus University of Tokyo 東京大学本郷キャンパス工学部2号館212号室

Generous support for this project was provided by The Japan Foundation Center for Global Partnership



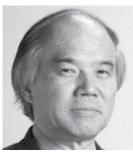




TOSHIO OTSUKI PROFESSOR OF ARCHITECTURE, UNIVERSITY OF TOKYO

Toshio Otsuki is a Professor of Architectural Planning at the University of Tokyo. His research focuses on the design of collective dwellings, especially as part of housing complexes, and on housing improvement issues in slum areas in Asian and African countries. For the victims of the Tohoku Tsunami, he and his research team have proposed "Temporary Housing with Community-Care" which was realized in Kamaishi City and Tono City in Iwate Prefecture, in the Tohoku region of Japan. They are currently designing public housing as part of the reconstruction process of Otsuchi Town in Iwate Prefecture. In this workshop, the hope is that the participants' proposals will be accepted by the local people they are working alongside and will be designed based on the history, the culture and the mind of the victims of Minamisanriku.





TAKASHI ONISHI
PRESIDENT, SCIENCE COUNCIL OF JAPAN
PROFESSOR OF URBAN ENGINEERING,
UNIVERSITY OF TOKYO

Takashi Onishi is a Professor of Urban Engineering in the Graduate School of Engineering at the University of Tokyo and teaches in the Research Center for Advanced Science and Technology and at the United Nations University. Professor Onishi's research focuses on city, regional, and national planning, urban development and land policies, both in Japan and in developing countries. He currently serves as president of the Science Council of Japan (SCJ) and is a member of the Great East Japan Earthquake Reconstruction Design Council.

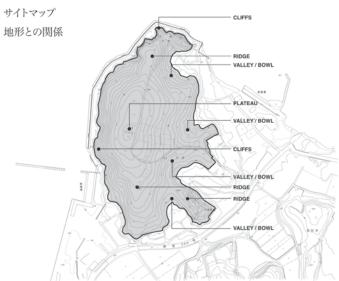
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#### "Place-based Methods for Disaster-Resilient Design"



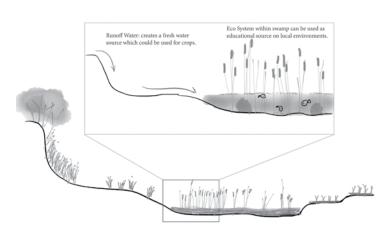
Professor James Wescoat focused on intensive place-based methods for disaster-resilient design and reconstruction planning in Minamisanriku. While highly site-specific, these methods are rapidly replicable for large numbers of small coastal communities. Professor Wescoat is the Aga Khan Professor of Architecture at MIT.

#### SITE MAP: HADENYA LANDFORMS ABOVE 10m



The Future of the Marshes A natural ammenity

湿地帯のこれから・・・ <sup>自然のアメニティ</sup>





# JAMES WESCOAT CO-DIRECTOR, JAPAN 3.11 INITIATIVE AGA KHAN PROFESSOR OF ARCHITECTURE, MIT

James L. Wescoat, Jr. is an Aga Khan Professor in the School of Architecture and Planning at the Massachusetts Institute of Technology. He earned his PhD in geography at the University of Chicago. He offers courses on water, natural hazards, and landscape design. Professor Wescoat's research concentrates on water systems in South Asia and the United States from the site scale to the river basin scale. His publications include studies of water law, policy and the historical geography of water development in South Asia. In 2010 he organized a joint workshop on Disaster Resilient Design with the U.S. National Academies Disaster Roundtable and the National Academy of Environmental Design. His books include Water for Life: Water Management and Environmental Policy with geographer Gilbert F. White; and Political Economies of Landscape Change: Places of Integrative Power.

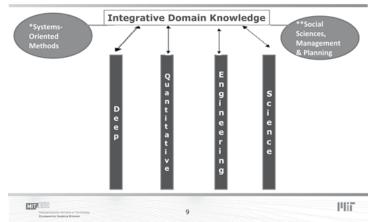
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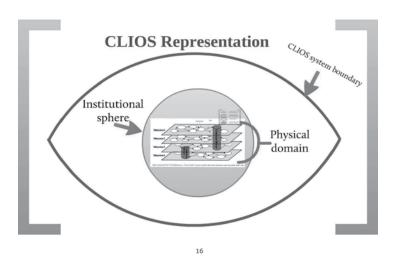
## "Complex Socio-Technical Systems"



Professor Joseph Sussman considered the 3.11 catastrophe and its aftermath as a "complex socio-technical system," focusing in the interplay between technology and organizational issues. Professor Sussman is the JR East Professor of Civil and Environmental Engineering and Engineering Systems at MIT.

# An Approach to the *Design* of Complex Sociotechnical Systems







#### **JOSEPH SUSSMAN**

JR EAST PROFESSOR OF CIVIL AND ENVIRONMENTAL ENGINEERING AND ENGINEERING SYSTEMS, MIT

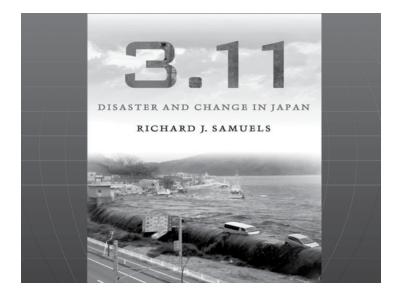
Joseph M. Sussman is the JR East Professor (endowed by the East Japan Railway Company) in the Department of Civil and Environmental Engineering and the Engineering Systems Division at MIT, where he has served as a faculty member for 43 years. He is the author of *Introduction to Transportation* Systems, a graduate text published in 2000, in use at a number of universities in the U.S. and abroad. His book *Perspectives* on Intelligent Transportation Systems (ITS) was published in 2005. Sussman received the Roy W. Crum Distinguished Service Award from TRB, its highest honor, "for significant contributions to research" in 2001, and the CUTC Award for Distinguished Contribution to University Transportation Education and Research from the Council of University Transportation Centers in 2003. In 2002 ITS Massachusetts named its annual "Joseph M. Sussman Leadership Award" in his honor. He became a fellow of the American Association for the Advancement of Science in 2007.

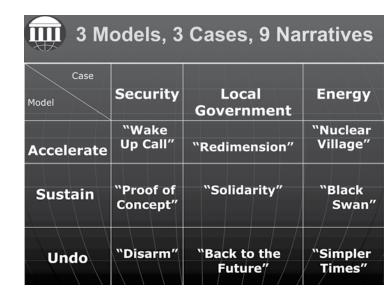
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### "Disaster Response and Political Change in Japan"



Professor Richard J. Samuels spoke on how the Japanese government and the political class responded to the 3.11 catastrophe in three policy areas: energy, national security, and local governance, the subject of his new book, 3.11: Disaster and Change in Japan (Cornell University Press, 2013). Professor Samuels is the Ford International Professor of Political Science and Director of the MIT Center for International Studies.





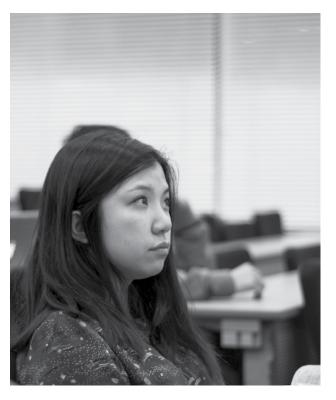


#### **RICHARD SAMUELS**

FORD INTERNATIONAL PROFESSOR OF POLITICAL SCIENCE, MIT / PRINCIPAL, JAPAN 3.11 INITIATIVE DIRECTOR, MIT CENTER FOR INTERNATIONAL STUDIES / DIRECTOR, MIT JAPAN PROGRAM

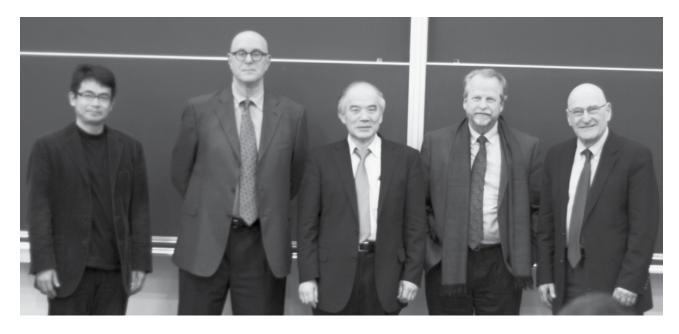
Richard J. Samuels is Ford International Professor of Political Science and Director of the Center for International Studies. He is also the Founding Director of the MIT Japan Program and has served as Head of the MIT Department of Political Science, Vice-Chairman of the Committee on Japan of the National Research Council, and as Chairman of the Japan-US Friendship Commission. He is one of only three scholars (Japanese or foreign) to have produced more than one scholarly monograph recognized by the Nippon Foundation as one of the top "one hundred books for understanding contemporary Japan." Cornell University Press has just published his book about the political and economic effects of Japan's March 2011 catastrophes: 3.11: Disaster and Change in Japan. His articles have appeared in Foreign Affairs, International Security, Foreign Policy, Washington Quarterly, International Organization, The National Interest, The Journal of Japanese Studies, and other scholarly journals.

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From left to right:
Professors Otsuki (moderator),
Samuels (visiting speaker), Onishi
(discussant), Wescoat (visiting
speaker), and Sussman (visiting
speaker)



Opposite page:
Top: Audience members absorb and engage with the panel.

Bottom: Students from the MIT architecture studio discuss the symposium.



# 3.11 Tsunami Banner



Year Two commemoration MIT, Cambridge, MA March 2013

#### Explanation posted with the 3.11 Tsunami Banner:

- The catastrophic TSUNAMI averaging 20 meters high swept up lives and entire towns along Japan's Tohoku coastline.
- We all read and recall numerical data, but we do not always experience what that really feels like the immensity of a raging tsunami 60 feet high.
- If you are reading this now, you are drowning in water.
- The yellow banner commemorates the devastating disaster of the M9 earthquake, TSUNAMI, and nuclear meltdown.



Banner Graphics: Emily Lo Gibson Fabrication and Installation: Matthew Bunza, Ira Winder, Koharu Usui Photos: Ira Winder





The banner was installed at MIT's Media Lab as a very visual reminder of 3.11. At 15.9 meters, it was so long that it extended beyond the atrium and continued into the 5th floor.

## Credits + Acknowledgements

The Japan Foundation Center for Global Partnership
Takenaka Corporation / Sponsor of the "BEYOND 3.11" Exhibit
University of Tokyo / Sponsor of the "MIT Perspectives on 3.11" Symposium

#### People of Minamisanriku:

Kurayoshi & Kikumi Abe
Noriko Abe
Tadayoshi Abe
Minoru Abe
Hitoshi & Tsume Oikawa
Mitsuru Oikawa
Yoji Oikawa
Onodera Hiroshi
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Fumie Sakagami
Shoji Nobuatsu
Aiko Wakao
Yoji Sasaki
Akira Taguchi
Ayu Ikeda

#### MIT Members, Sponsors & Affiliates:

Richard Samuels James Wescoat Patricia Gercik Nancy Angoff Larry & Atsuko Fish Geraldine Kunstadter Joanne Fallon

Matthew P Bunza Duncan S Kincaid Emily Lo Gibson Saya Suzuki Adele Phillips Mariko Inoue Karin Schierhold Vanessa Powell Marcy Monroe Amna Khalid Ansari Mio Yamamoto Bryan Moser MIT Japan 3.11 Initiative Team Dream Team 01\_02, 03 Students of MIT Japan Workshop Japanese Society of Undergraduates University of Tokyo, Miyagi, Keio, Japan Women's University

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Boston Japan Society

すばらしい歌津をつくる協議会 一般社団法人ユーカリヤ MIT 日本会 (株) ECO都市環境計画研究所 (財) 東芝国際交流財団 (株) NTTドコモ\_CSR (株) NEC\_CSR (株) 東芝\_CSR (株) JR東日本 This publication includes only a brief summary of the material and ideas produced by the MIT Japan 3.11 initiative. For more information and current updates, please visit our website at:



# http://japan3-11.mit.edu

Listen to community interviews from Year ONE : http://tinyurl.com/minami-sanriku-docu

Watch the Baabadoru 5-chome Center come to life :

http://tinyurl.com/babadoru5chome

Take a tour of the A4 Exhibit : http://tinyurl.com/A4exhibit

See the latest activity from the MIT Inter-University Program : http://tinyurl.com/MITiUP2012

Listen to the "MIT Perspectives on 3.11" Symposium : http://tinyurl.com/UTokyoSympo

The MIT Japan 3.11 Initiative is a collaboration between MIT, Miyagi University, and the University of Tokyo

CGP Report production by Emily Lo Gibson, MIT

MIT Center for International Studies Cambridge, MA USA

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