Shigeru Ban Studio e projetos

Mirian Vaccari – Pesquisadora Internacional Shigeru Ban Studio

Primavera, 2013

Construção do Studio

Kyoto University of Arts and Design - KUAD

Fonte: VAN – Voluntary Architects Network e KUAD

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Inauguração do Studio

PPS 4 – Paper Tube Structure 4

Foto da autora

PPS4 – Paper Tube Structure 4

Fonte: VAN – Voluntary Architects Network
Shigeru Ban Architects

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PPS 4 – Paper Tube Structure 4

Foto : Arquiteto Jurek Latka

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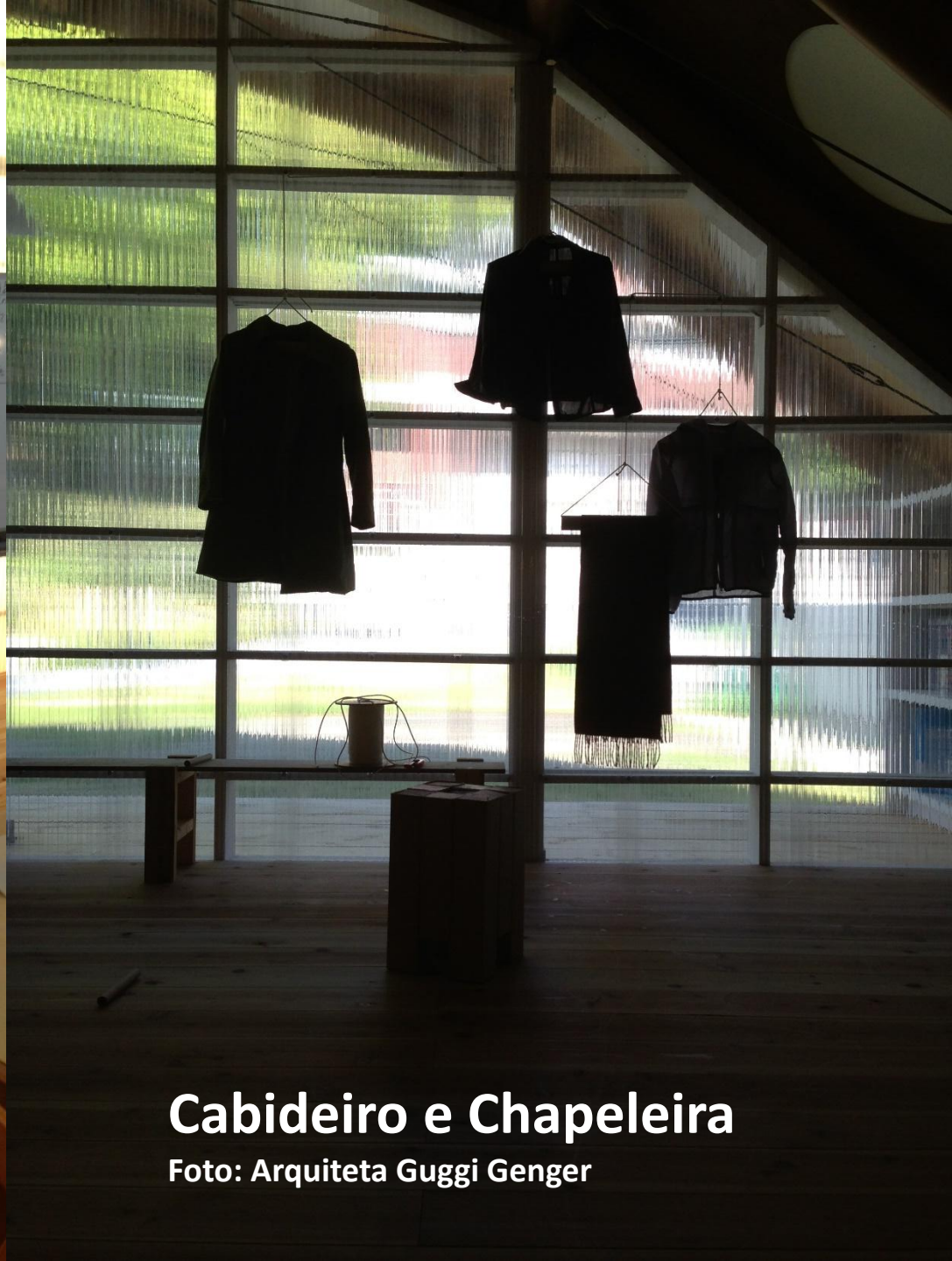
Inauguração do Studio

Foto: Arquiteto Jurek Latka

Cabideiro e Chapeleira

Foto: Arquiteta Guggi Genger



Cabideiro e Chapeleira

Foto: Arquiteta Guggi Genger

Shigeru Ban: Arquitetura e Atividades Humanitárias

Mito, Maio, 2013

Fonte: VAN – Voluntary Architects Network, Shigeru Ban Architects e Kyoto University of Arts and Design

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Escola Temporária na China

Fonte: VAN – Voluntary Architects Network, Shigeru Ban Architects

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Fonte: VAN – Voluntary Architects Network, Shigeru Ban Architects e Kyoto University of Arts and Design

Pavilhão em Hannover

Fonte: VAN – Voluntary Architects Network, Shigeru

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Jardim de infância na China

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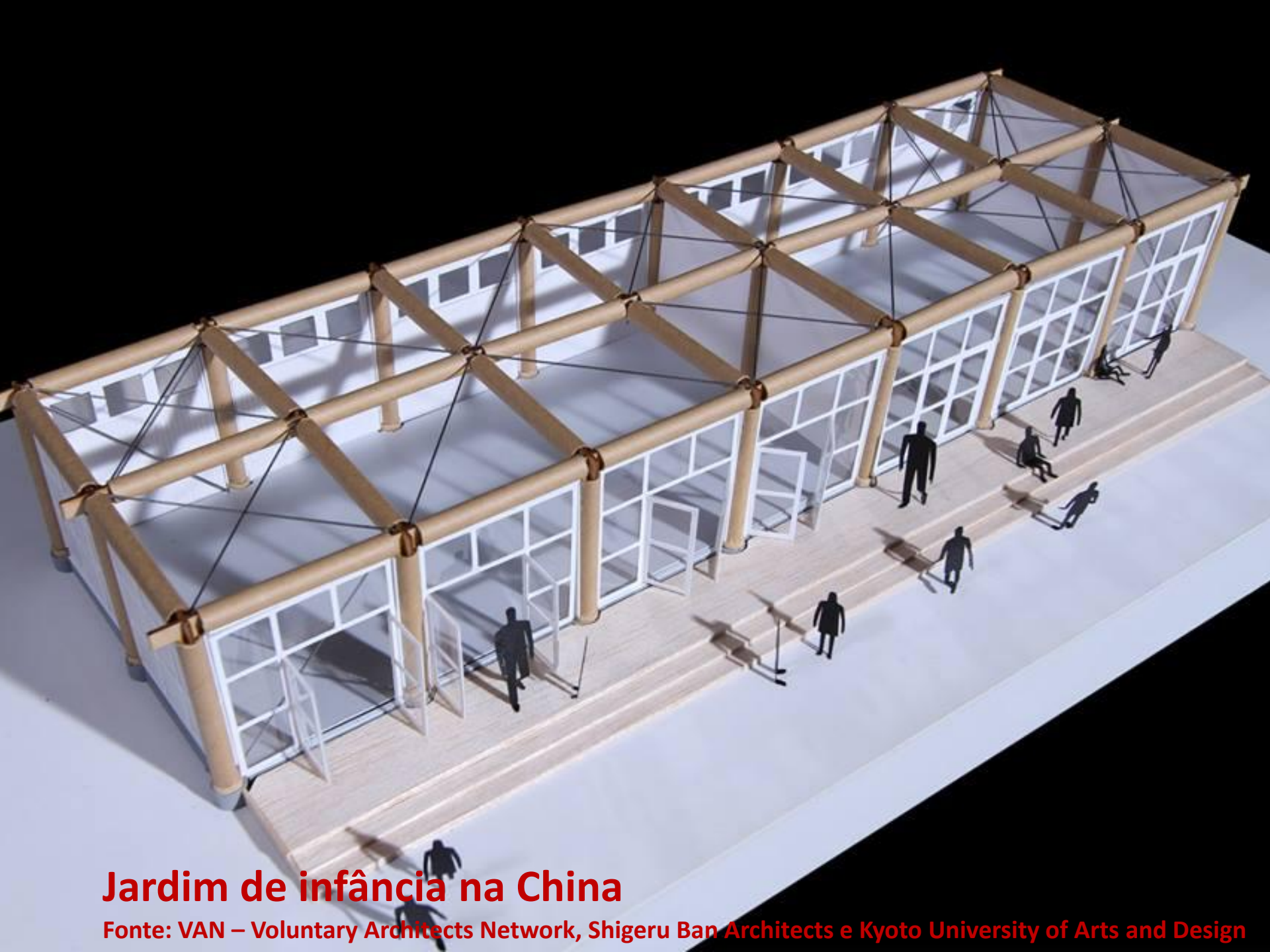

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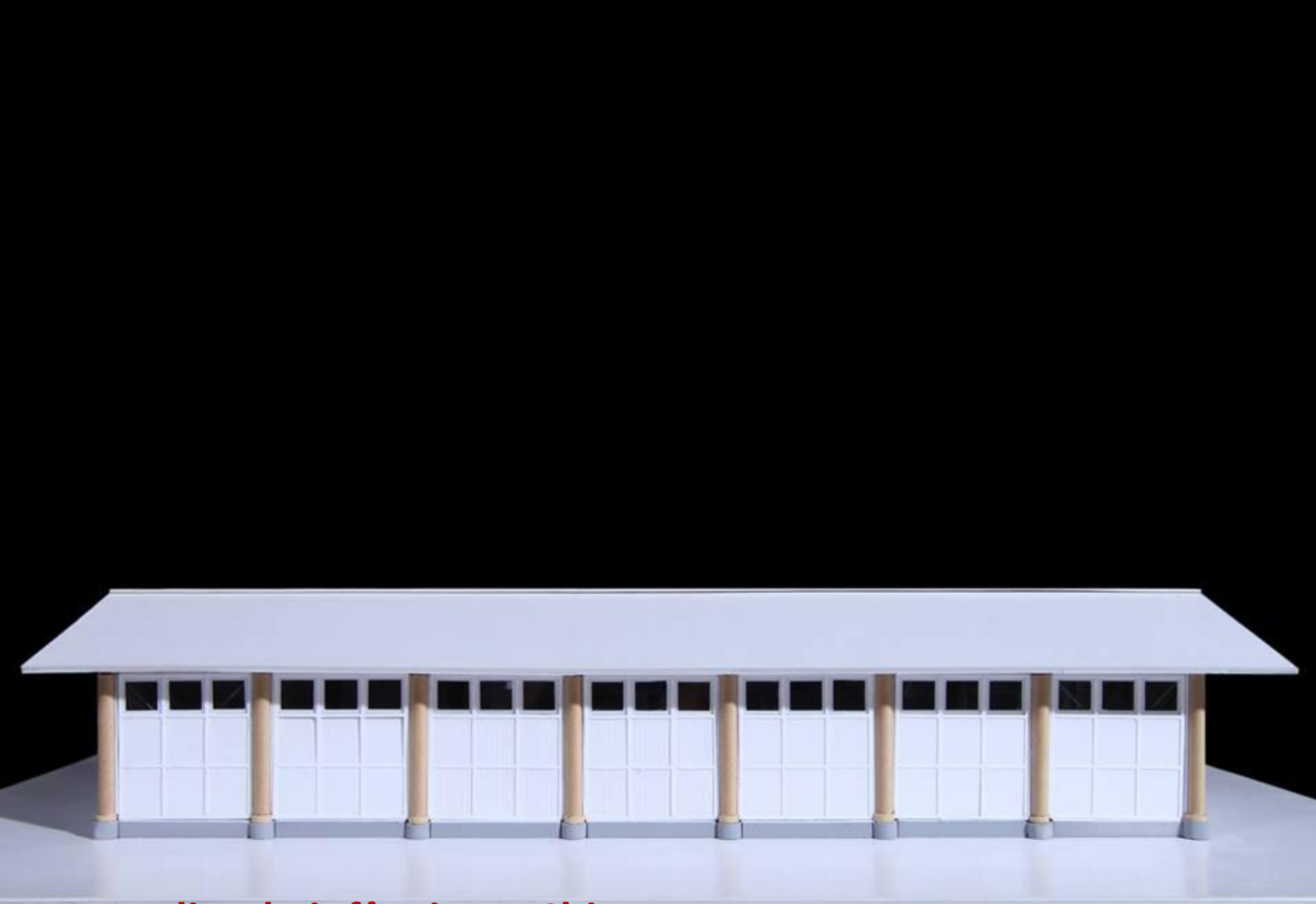

Jardim de infância na China

Fonte: VAN – Voluntary Architects Network, Shigeru Ban Architects e Kyoto University of Arts and Design

Pesquisas sobre terremotos

Fonte: http://news.nationalgeographic.com/news/2013/07/pictures/130723-china-earthquake-pictures-destruction-death/#/china-earthquake-kills-89-survivor_69616_600x450.jpg

Earthquake	**Indonesia -** Banda Aceh, Sumatra		
Date	2004/12/26 23:36	2008/02/20 03:08	2012/04/11 15:38
Scale	M9.1	M7.4	M8.6
Features	Earthquake with Tsunami in 2004 (600,000 people/ year suffer from Earthquake consequences)		
Homeless	5,000,000	No data found	65,000
Reconstruction Process	Alternative ① 	Alternative ② 	Alternative ③ 
Method	Advocating for and training people to build timber-framed houses with masonry skirt walls, or safe confined masonry houses if that is what the homeowner wants.	Providing hands-on technical assistance to homeowners for rebuilding their houses lost in the earthquake and raising their awareness of safe building techniques.	Providing on-the-job training and technical support to builders as they construct earthquake-safe houses.
Refugees	30,000 people fled to Malaysia in December	No data found	No data found
Problem	As the current government grant remains insufficient, homeowners' lack of funds means that they either do not complete their home, or complete them without meeting minimum standards. This is exacerbated by the fact that commercial banks will only give loans to those with formal sector jobs. The conventional response of relief agencies focuses on short-term solutions, which leads to fewer resources for permanent housing		
Note	International donors contributed over $1 Billion in effort coordinated by the UN, USA, India, Australia and Japan (2004). UNESCO, in cooperation with other organizations, took the lead for developing and implementing an improved Tsunami Warning System for the Indian Ocean.(2004) Tsunami Early Warning System and the Weather Early Warning System. Each surviving household would be entitled to grant funds from the government to rebuild their houses, with amounts of about US$3,000 per house if it needed to be rebuilt from scratch About US$1,000 for damaged houses that could still be renovated. Grant funds also were allocated for repair and reconstruction of community infrastructure. As many responses have been given to Earthquake issues in Indonesia, the alternatives showed above represent just one of the many reconstruction processes being carried out in Banda Aceh.		

Earthquake	**Chile - Concepción**		
Date	2010.02.27 06:34		
Scale	M8.8		
Features	・Earthquake with Tsunami		
Homeless	800,000		
Reconstruction Process	① Makeshift camps, schools and tents 	② Tents, hotels or own accommodation 	③ Public restoration programs   
Method	Shelter box: dry waterproof shelter, bed, water purification, cooking aid and utensils, practical utensils, children's pack for 10 people	Un techo para chile: T shelter module: industrialized wooden system	Reconstruction in site, different kinds of building system chosen by each village in a participative project (masonry or wood) Improvement in vulnerable houses will is also planned.
Number of construction	9 shelter camps with 19,000 people | 25,000 in schools | 50,000 makeshift camps | Others: family and friends	20,000 shelters (Un techo para Chile)	88% of the homeless families (196,000 out of the total of 222,000), were at least under construction in December, 2012.
Period	1 month emergency schools	Un techo para Chile: 2 months and a half	125,000 hours until December, 2012 Full reconstruction deadline: 2014
Problem	Tents and emergency schools and gymnasiums were not enough, so the people had to live in makeshift camps	Showers are cold. Leaking walls and roofs. Pot plants and paint are used to make the shelters feel like home	In December 2012, no reconstruction project was finished. Some families are rebuilding their houses by their own.
Note	Percentage of Chileans living in poverty - a figure that has been declining for decades - rose to 19.4% in mid-2010 from 16.4% in 2009.		

Earthquake	**Italy -** L'Áquila Earthquake		
Date	2009.4.6 03:32		
Scale	M6.3		
Features	・Earthquake in a University City		
Homeless	70,000 to 80,000 refugees/ 30,000 homeless		
Reconstruction Process	① School's and Gymnasiums 	② Tents, hotels or own accommodation 	③ Public housing – C.A.S.E project 
Method	-	Tents	Prefab Concrete structure seismic isolated buildings
Number of construction	-	171 tent camps(16,500 tents)	185 buildings (4,600 apartments for 12,000 people)
Refugees	70,000 to 80,000	58,000 (2009.6.5)	
Period	2 days	After 2 days, 14,500 tents were settled and 2,000 were on standby	Construction of the first units: 6 months (15 months after the earthquake, more than 90% of the homeless survivors were rehoused and 10% would be soon accommodated
Problem		Psychological problems associated with the fragmentation of the communities	"temporary housing" built in Italy, ended up lasting for decades
Note		People were forced to continue to pay local taxes and mortgages on properties that had been destroyed	26.000 unemployed by the earthquake) People were forced to continue to pay local taxes on properties that had been destroyed - Population dissatisfied

Earthquake	**India and Pakistan – Gujarat Earthquake (Gujarat Province, India and Sindh Province Pakistan)**		
Date	2001.1.26, 08:46		
Scale	M6.9		
Features	・Earthquake in a University City		
Homeless	1,040,000		
Reconstruction Process	① Emergency Shelter: 	② Temporary Housing: 	③ Permanent housing: 
Method	corrugated steel hut | religious groups accomodations | streets (open sky)	Steel, Wood or Bamboo Frame – walls and roof in clay | Asphaltic walls and roof	Owner Built House| Subsidized House | Contractor Driven House
Number of construction	No data found		
Refugees	70,000 to 80,000	58,000 (2009.6.5)	
Period		3 days	Construction of the first units: 6 months (15 months after the earthquake, more than 90% of the homeless survivors were rehoused and 10% would be soon accommodated
Problem	Insufficient emergency shelters		Contractor driven houses abandoned by the users
Note	Gujarat Emergency Earthquake Reconstruction Project (GEERP): Public and Private partnership - each village was adopted by national and international, governmental, non-governmental and private agencies. 75 agencies adopted 272 villages and other NGOs gave reconstruction assistance without providing full housing to specific target groups. 5 different housing construction approaches: owner driven (87% of the destroyed homes), subsidiary housing, participatory housing, contractor driven in site and contractor driven off site.		

Earthquake	**Papua New Guinea (Aitape Tsunami)**	
Date	1998.07.17 08:49	
Scale	M7.0	
Features	・Earthquake with Tsunami	
Homeless	10,000	
Reconstruction Process	① Care centers and latrine construction 	② Resettlement  
Method	Latrine construction and training was carried out under the guidance of a Red Cross latrine construction facilitator. About 1,600 people could not feel safe in their own land, so they fled further inland from the sea. Care centers closed in the end of 1998.	Some families had started building homes though many families hesitated to build until they were sure where new schools or other permanent services (schools, clinics and churches) would be located. So, this imposed heavier duty on temporary shelters for those who were unlikely to move or build permanent houses yet.. Temporary shelter project: provision of bush materials for homeless to build a little bit more permanent houses or shelter (buy material from local people | cut | buy it from | move them to care centers| distribute to individual families
Number of construction	6 cares centers	No data found
Period	No data found	
Note	Lack of data on reconstruction reflects the people of Papua New Guinea cultural background. Housing was not a major concern in recovery phase, recovery of livelihood was the main focus: - Health issues, nutrition: local vegetables and fish (fishing) - Source of income: production of fishing net, fishing boat and cash crop crops.	

Earthquake	**Japan** 兵庫県南部（阪神淡路大震災）		
Date	1995.1.17 05：46		
Scale	M7.3 震度7		
Features	・Earthquake in the big city		
Homeless	316,678people (1995/1/23)		
Reconstruction Process	① Schools, town halls, open parks 	② Temporary houses 	③ Public restoration housing 
Method	-	Prefabrication	Concrete encased steel beam/column
Number of construction	1153 (1995/1/23)	48,300	750,000 (rental 80%)
Refugees	316,678 (1995/1/23)	66,000	
Period	~1995/8/20	Construction 1995/1/20～1995/8/10 Moving into 1995/2/2～2000/1/14 Withdrawal 1997~2000	Moving into 1995/10-2000/1 Restoration 2015~2023
Problem	The severe winter weather (-2° C.)	Solitary death	Population ageing
Note			・Urban apartment house type

Earthquake	**Indonesia** Flores Earthquake		
Date	1992.12.12 05:29		
Scale	M7.8		
Features	・Earthquake with tsunami		
Homeless	40,000		
Reconstruction Process	① Operation centers 	② Shelter built by the military forces 	③ Fishermen village built by the fishermen 
Method	3 weeks: relief of earthquake victims immediately after the disaster	3 months: initial rehabilitation and recovery works to put vital infrastructure back into service and shelter for the homeless	3 years: permanent reconstruction works from April 1st, 1993.
Number of construction	No data found	1,800	Example of one of the vilages rebuilt by the people
Period	3 weeks	3 months	3 years
Problem	Relocation of villages to new areas led to people to abandon the houses (8 years after) when they moved back to their origina villages. It is apparent that the decision to relocate them in 1993 did not take the social, cultural and economic factors into account. By relocating the people, natives from other villages who had retained their culture, social environment and religion were forced to changing their habits in a new village.		
Note	The military barrack building style was not in line with the fishermen's way of life, which consider the sea as part of their lives. By building on poles, the fishermen could tie their boats along their houses during high tides. Flores was rebuilt thanks to the support of aid agencies and governments all over the world. However, recovery plans should address the cultural issues that local communities have been developing over generations not risking vernacular traditions.		

Earthquake	**Chile** Chillán Earthquake		
Date	1939.01.25 03:32		
Scale	M8.3		
Features	・Earthquake where the most used type of construction was Adobe (Earth walls)		
Homeless	Thousands (non specified)		
Reconstruction Process	① New cathedral in Chillan Hernan Larrain Herrazuriz 	② Le corbusier 	③ Copelec Building, Juan Bochers 
Method	A cathedral in the central square of Chillán, Chile replaces the ancient cathedral that collapsed during the strong earthquake of 1939. This modern structure was constructed with earthquake resistance as the primary consideration. The only damage caused by the M 8.8 earthquake on Feb. 27, 2010 was broken windows	Le Corbusier, offered a reconstruction plan to Chillan, which at the end was declined by the Aguirre Cerda's administration, preferring a more local strategy	Chillán, Concepción and other cities were reconstructed influenced by Modern Architecture. They were rebuilt by young Chilean architects influenced indirectly by European vanguards and focusing in efficiency, standardization, hygiene and seismic resistance. Multiple houses and public buildings resisted more than one high intensity earthquake without any damages.
Notes	The newly elected President Pedro Aguirre Cerda in 1939 and his government quickly responded to the disaster. Supplies arrived in the disaster zone by land, sea, and air the next day after the disaster from both public and private entities. Repair crews worked to clear main transportation arteries to facilitate the delivery of relief aid. Engineers and public works commissions helped to build temporary shelters and basic facilities such as schools and hospitals. The government quickly and efficiently responded to the disaster. The catastrophe provided an opportunity to expand the Chilean State.		