行政院及所屬各機關出國報告書

(出國類別:出席國際會議)

「2017台日韓越國際都市計劃研討會」 出國報告

服務機關:國家發展委員會 姓名職稱:塗技士佩菁 出國地區:日本(名古屋市) 出國期間:106年8月23日至8月27日 報告日期:106年11月

摘 要

2017台日韓越國際都市計劃研討會(The International Symposium on city planning 2017)由日本都市計畫學會主 辦,於 2017 年 8 月 24 日(四),假日本名古屋國際會議場 (Nagoya Congress Center)舉行,本次行程由中華民國都市 計劃學會理事長林峰田教授領隊出席,國內相關領域之專家 學者、政府機關計 20 位共同與會,發表 17 篇學術論文。

本次研討會會議主題為「創造宜居城市」(Creating Livable Cities),參訪地點為豐田產業技術紀念館、名古 屋城、鐵道館、Tsukiji社區、Hisaya-Odori 公園、Oasis21 水的宇宙船、Nagono 區(歷史街區)等。

參與國際研討會除了可藉由專題演講、小組研究發表及 綜合討論等方式了解各國在都市發展的相關研究外,也透過 實地參觀方式,進一步對日本名古屋市當地之歷史文化、都 市發展、社會變遷、地理特色、人文風貌及其他傳統習俗有 所認知。

本次參加國際研討會之主要心得與建議包括:

- 透過學術論文發表,可培養同仁學術研究實力,提升本會 之國際能見度。
- 2. 藉由持續觀察各國在國土規劃及都市發展領域的創新研究,納為我國研究「前瞻國土規劃及宜居城鄉」之參考。
 3. 社區營造、社區防災、科技發展、都市活力及創造符合高齡少子化社會空間使用等,都是宜居城市所需要跨域整合之思考元素。

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- Livable City Center in the Age of Linear Chuo Shinkansen (Akito Murayama, Ph.D.)
- Experiences of Livable TOD surrounding THSR Stations (Prof. Feng-Tyan LIN)

第一章、前言

一、緣起與目的

都市計畫學會國際交流研討會(The International Symposium on city planning,簡稱 ISCP),係由「中華民國都市計劃學會」、「日本都市計劃學會」、「韓國規劃者協會」於1994 年共同成立,並於2012年加入「越南城市規劃和發展學會」。

ISCP 成立的目的,是為了發展和傳播都市發展學術知識,促進亞洲國家有關都市計畫發展實踐和提高跨領域的密切交流平台, 本研討會主要以「專題演講」、「小組研究發表」和「綜合討論」 等方式舉行。

國際研討會每年由各學會輪流舉辦,本(2017)年由日本都市 計劃學會(CPIJ)主辦,邀請都市計畫各領域專家針對「Creating Livable Cities」進行深度研討,會議時間為106年8月24日至 26日,期望透過相關領域專家學者及政府單位之研究論文發表, 分享各國都市規劃案例與成果。



日本都市計畫學會 致贈 中華民國都市計劃學會(林理事長峰田)禮物

年度	主題	主辦國	舉辦地點
2017	Creating Livable Cities	CPIJ	日本/名古屋
2016	City in Motion: Toward Adaptive & Resilient City for Tomorrow	TIUP	台灣/台北
2015	Global Smart City and Urban Regeneration	KPA	韓國/ 世宗特別自 治市
2014	Prospect of Planning for Megacity Region	VUPDA	越南/河內
2013	Resilient and Sustainable Cities		日本/仙台
2012	Smart City and Urban Renewal		台灣/台北
2011	Preservation of Historic City and City Planning	KPA	韓國/慶州
2010	Historical Heritage and City Planning	CPIJ	日本/奈良
2009	Urban Regeneration and Innovation	TIUP	台灣/台南
2008	Emerging Planning Issues in East Asian Cities		韓國/全州
2007	Creative City	CPIJ	日本/横濱
2006	Diversity, Creativity, Sustainability	TIUP	台灣/台北

2005	Heritage, Culture, Uniqueness	KPA	韓國/濟州島
2004	Planning, Regionalism, Coexistence	CPIJ	日本/札幌
2003	Planning, Regionalism, Coexistence	CPIJ	日本/札幌
2002	Cities in the Information Age	TIUP	台灣/台北
2001	Oriental Paradigm for Urban Planning in the 21st Century	KPA	韓國/大田
2000	Prospect for City Planning in the 21st Century	CPIJ	日本/神户
1999	Retrospact and Prospect for Regional Development Towards 21st Century	TIUP	台灣/台南
1998	Sustainable Urban Development Towards the 21st Century	KPA	韓國/仁川
1997	New Pradigm in City Planning	CPIJ	日本/名古屋
1996	Reshaping Urban Vision and Development Towards 21st Century	TIUP	台灣/台中
1995	The Globalization of Local City	KPA	韓國/光州
1994	Local Cities in the 21st Century	CPIJ	日本/福岡 北九州

第二章、行程简介

一、研討會議程說明

2017年台日韓越國際都市計劃研討會由日本主辦,於8月24 日~8月26日在名古屋市舉行。中華民國都市計劃學會有多位代 表提出論文發表,參加日程為8月23日~8月27日共5天。

期程	日期	行程	住宿飯店
第一天	8月23日 週三	上午 11:45 桃園機場(TPE)出發,15:40 抵達名古屋中部國際機場(NGO) (航班:CX 530) 或 傍晚 17:05 桃園機場(TPE)出發,21:00 抵達名古屋中部國際機場(NGO) (航班:CI 150)	Kanayama Station 附近
第二天	8月24日 週四	早上名古屋市參訪行程, 晚上參加 welcome party	
第三天	8月25日 週五	8/25 全夭研討會 (Nagoya Congress Center)	
第四天	8月26日 週六	Technical tour (集合地點:Toshi Center near Kanayama Station)	
第五天	8月27日 週日	中午 12:15 由名古屋中部國際機場 (NGO)回臺灣, 14:30 抵達桃園機場 (航班: Cl 155) 或 下午 16:50 由名古屋中部國際機場 (NGO)回臺灣, 17:05 抵達桃園機場 (航班: CX 531)	

會議主題: Creating Livable Cities

Schedule

24 August (Thu) 18:00-20 :00

Welcome Party

Venue: ANA CROWN PLAZA Hotel Grand Court NAGOYA 28F Sky Banquet Crystal Room

[Program]

Chair: Prof. Keiro Hattori (International Affairs Committee, CPIJ)

Reception and Registration [17:30- 18:00] Opening Address by the host institute

- Prof. Makoto Yokohari (President of CPIJ)

Welcoming Address

– Mr. Yoshio Watanabe (Director of City Planning Department, Housing & City Planning Bureau, City of Nagoya)

Address and a Toast Ceremony

(Vice President of CPIJ) – Prof. Hisashi Kubota **Guest Address** - Prof. Hong Bae Kim (President of KPA) — Prof. Feng-Tyan Lin (President of TIUP)

(President of VUPDA) — Mr. Chinh Tran Ngoc

Commemorative Gifts to Guest

Closing Address

- Prof, Sadatsugu Nishiura (Chairperson of International Affairs Committee, CPIJ) Closing [20:00]

25 August (Fri) 9:00-20 :00

International Conference Venue: Nagoya Congress Center, Budg 2 [Program] Reception and Registration [8:30-] Opening Ceremony [9:00-10:15] Place: Conference Room 224 **Opening Address**

Chair: Prof. Ikuho Yamada

(International Affairs Committee, CPIJ)

- Prof. Makoto Yokohari (President of CPIJ)

Congratulatory Address

- Prof. Hong Bae Kim (President of KPA)

— Prof. Feng-Tyan Lin (President of TIUP) (President of VUPDA)

- Mr. Chinh Tran Ngoc Special Guest Address

- Dr. Chang Woon LEE (President of KOTI(Korea Transport Institute) Keynote Speech "MACHIZUKURI PLANNING of Nagoya City for High Speed Rail"

(Director of City Planning Division, – Mr. Hiroyuki Suzuki

Housing & City Planning Bureau, City of Nagoya)

Closing [10:15]

Paper Presentation [10:30-16:00] * see page 6-13 **Special Session** I) Livable City Development and High Speed Rail [16:00-18:00] Place: Conference Room 224 II) Urban Movie Contest [14:30-16:30] Place: Conference Room 234 Farewell Party [18:30- 20:00] Chair: Dr. Norihisa Shima Place: Skyview Restaurant Pastel, 7th floor Bldg. 1 (International Affairs Committee, CPIJ) **Opening Address** -- Prof. Akinori Morimoto (Managing Director of CPIJ) Announcement of 2018 ICAPPS - VUPDA Future of YUPN - Dr. Norihisa Shima (Organizing Committee of YUPN) **Closing Address** Closing [20:00]

2017 International Conference of Asian Pacific Planning Societies

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[Note]Lunch time is from 12:00 to 13:00. Please have lunch in the exhibition room. Executive Meeting will be held at Conference Room 225 during lunch time.

26 August (Sat) 9:00-16 :00

Technical Tour

Technical tour participants will meet at the gallery on the 11th floor of Nagoya Urban Institute, Kayanama Minami Building at 8:50.

Kayanama Minami Building is located next to ANA CROWNE PLAZA Hotel Grand Court NAGOYA.

Visiting to

- SCMAGLEV and Railway Park
- Minatomachi POTLUCK BUILDING and community development activities in the Port Town
- the central area of Nagoya (Hisyaya-Odori Park, Nagoya TV Tower, Oasis 21, Nishiki District, Nagono District)

Arriving at 16:00 Nagoya Station.



二、參加人員

2011台日韓越國際都市計劃研討會-臺灣代表團名里	
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編號	姓名	職稱	服務學校機關或單位
1	林峰田	理事長	中華民國都市計劃學會/成功大學
2	白仁德	常務理事	中華民國都市計劃學會/政治大學
3	賴美蓉	理事	中華民國都市計劃學會/逢甲大學
4	劉立偉	教授	逢甲大學
5	林珍瑩	教授	淡江大學
6	林如森	教授	台灣大學
7	林士堅	教授	中國科技大學
8	柯佩吟	副主任	逢甲大學城鄉發展研究中心
9	林榆芝	老師	逢甲大學
10	李德軒	老師	中國文化大學
11	陳秉立	老師	金門大學都市計畫系
12	陳玉嬌	技正/博士候選人	國家發展委員會/政治大學地政系
13	塗佩菁	技士/博士候選人	國家發展委員會/台灣大學城鄉所
14	高俐玲	博士候選人	政治大學地政系
15	蕭閎偉	博士生	東京大學
16	廖宜霈	博士生	成功大學
17	黄培軒	學生	逢甲大學
18	蘇思華	學生	逢甲大學
19	紀逸旻	學生	逢甲大學
20	陳思穎	學生	中國文化大學

第三章、會議過程紀要

一、會議地點:日本名古屋市



名古屋市位於日本愛知縣西部的都市,人口約 230 萬,在日 本各都市中排名第四,僅次於東京都區部、橫濱市及大阪市。由 於位於東京與京都之間,因此又被稱為「中京」,全市劃分為 16 個區。

2008 年,名古屋市和神戶市一起被聯合國教科文組織認可為 「創意都市」。在美國智庫 AT Kearney 頒布的全球城市排名中, 名古屋市被評為世界第 69 位的都市。名古屋的市徽由圓形中置一 「八」字而成,取自江戶時代在此當家的尾張德川家的印記「九 八印」。

1925 年日本人口普查時,名古屋市人口已經增加到超過 76 萬人,是當時日本人口第三多的城市。1935 年人口普查時,名古 屋市人口已經超過百萬。第二次世界大戰爆發之後,名古屋市的 戰爭色彩與日俱增,重化學工業取代輕工業成為名古屋工業的主 要部分,市內興建了眾多軍事設施。聚集了眾多軍事工業和人口 密集的這兩大特徵使得名古屋成為美軍空襲的目標。1942 年,名 古屋首次遭到美軍空襲。1945 年,美軍對名古屋進行大規模空襲, 名古屋市的人口也從太平洋戰爭開始時的約 138 萬人急劇減少到

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1945年的不到60萬人。

名古屋市在戰後快速開始重建。在名古屋市的戰災復興都市 計劃中,市政府規劃了兩條寬度達 100 米的主幹道,在當時是相 當劃時代的做法,也確立了今日名古屋的都市格局。

在經濟高度成長時期,名古屋開通了東海道新幹線,人口也 在1969年超過200萬。1970年底中期,名古屋市的人口增長速度 開始趨緩,行政區劃確立了現在的16區體制,並且市政府公布了 市基本構想,標誌名古屋市從高速發展時期進入穩定成長時期。 1980年代,名古屋興建了多條地下鐵,並在1989年舉辦了世界設 計博覽會,吸引超過1518萬人參觀。日本泡沫經濟崩潰之後,和 其他地區的經濟蕭條相對,名古屋市所在的愛知縣由於豐田汽車 為代表的汽車產業的好景氣而維持了較好的經濟狀況。

2005年,愛知縣先後迎來了「中部國際機場」和「2005年世 界博覽會」。雖然這兩大事件不是在名古屋市轄區發生,但和名 古屋有著密切關係,對名古屋經濟亦有助力。2008年世界經濟危 機及豐田汽車大規模召回事件爆發之後,名古屋經濟一度急速陷 入蕭條。不過近年隨著世界經濟和汽車產業景況的好轉,名古屋 經濟亦重現活力,但名古屋經濟發展仍存在過於仰賴汽車產業等 問題。

和日本大多數地區一樣,名古屋市面臨嚴峻的人口老齡化和 少子化問題。名古屋市總人口中,65歲以上人口佔23.7。與之相 對的是,名古屋市的總和生育率只有1.41,略低於日本平均水準。 另一方面,由於名古屋是日本經濟狀況較好的地區,自2002年以 來,名古屋市的人口流入量持續大於人口流出量。2016年年底時, 名古屋市人口中有72,683人是外國人,佔名古屋總人口的3.2%。 外國人人口以中國人最多,佔30.3%,其次是韓國人和菲律賓人。

名古屋市使用的方言是名古屋方言,屬於東海東山方言的一 部分。由於名古屋市的歷史相對較短,人口多是江戶時代後來自

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各地的移民,因此名古屋的方言和日語共通語較為近似。名古屋 的飲食文化有著濃郁的地方特色,其特點是使用味噌和醬油較多, 菜餚味道較重。具代表性的名古屋料理有燴義大利麵、台灣拉麵、 乾炸雞翅、味噌豬排、棊子麵、櫃塗飯、紅豆吐司等。名古屋祭 自 1955 年開始於每年 10 月上旬的週末舉行,是名古屋規模最大 的節慶活動。



地處日本兩大核心地區關東地方和近畿地方之間的名古屋, 在古代就是東海道上的交通節點,現在更是日本交通樞紐之一。 名古屋市的大部分鐵路由東海旅客鐵道(JR東海)和名古屋鐵道 運營。JR東海的總部位於名古屋,經營有東海地方的在來線和東 海道新幹線,是JR各社中營業額第二位的企業。名古屋車站是名 古屋交通的中心,每天平均有超過20萬人在此乘車。





二、研討主題

本次研討會論文發表計 112 篇論文, 21 項子題如下:

- 1. Research and analysis in urban and regional planning
- 2. Strategy for spatial planning
- 3. Planning theory and community planning
- 4. Urban redevelopment
- 5. Urban environmental planning for climate change
- 6. Built environment in human scale
- 7. Landscape planning and management
- 8. Scenic planning and management
- 9. Public and open space planning
- 10. Disaster-resilience planning
- 11. Sustainable planning in urban and regional scale
- 12. Social housing and building environment
- 13. Housing policy and equity
- 14. Tourist and heritage planning
- 15. Public transportation
- 16. Transportation analysis in urban planning
- 17. Mobility and travel behavior
- 18. Creative urban planning
- 19. Information and network in urban and regional planning
- 20. Innovative trends in regional planning
- 21. Urban and regional sustainability

第四章、参訪行程紀要

ー、トヨタ産業技術記念館(名古屋市西区則武新町 4-1-35)Toyota Commemorative Museum of Industry and Technology

該紀念館位於豐田集團共同事業集團發祥地、舊豐田紡織株 式會社本社工廠遺跡。保留了建築史上珍貴的紅磚建築,作為產 業遺跡存活用,用以介紹支撐近代日本發展的基礎產業之一、纖 維機械和持續不斷開拓現代汽車技術的變遷。透過機器實務的動 態展示以及各式各樣的實際演出,傳達「研究和創造的精神」和 「產品製造的重要性」。







林理事長峰田分享參訪名古屋「豐田產業技術紀念館」五點 心得,提供都市計畫專業借鏡,並為 ICAPPS 開幕致詞之主要内容: (1)research based design/planning:

豐田汽車創辦人豐田喜一郎的父親豐田佐吉是一位發明家。 自行研發自動化紡織機,開辦紡織工廠。喜一郎在紡織工廠内 創立汽車部門,後來獨立出來為豐田汽車。喜一郎秉承了其父 研發的精神,針對問題,運用最新的科技,保持創新,引領產 業。它的創新設計源自於參考既有成果,進而著手基礎研究, 而非單獨抄襲。planning 基礎研究的重要性亦是如此。

(2) learning by doing:

空有設計(規劃)創意是不夠的。透過實作,才能發現問 題癥結。空間規劃院系是 professional school ,必須透過實 作,才不會落於空想、空談。

(3) history of transformation:

任何事業均須面對挑戰與轉型。豐田由紡織廠(仍存在) 轉型為汽車廠,其不變的精神便是研發、追求精確、不斷改進、 改進、再改進。豐田產業透過歷史紀錄,激勵員工,不忘初心, 面對挑戰,永遠保持信心與毅力,克服困難,開創新局。history of urban planning 長久以來未受到應有的重視。頂多被當做 過時的歷史資料,聊備一格,而缺乏對其問題思考、對策選擇、

執行成果之史地、社會經濟、法政制度等背景因素的探討。 (4)looking forward to tomorrow:

豐田的下一世代,除了無人駕駛車之外,機器人將是其明 日產業。同樣的,planner 要因應氣候變化、高齡少子化、社 會公平等議題,如何善用「智慧科技」讓明天更好,是我們的 責任。

(5)在紀念館的一面牆上有一段話,做為豐田的志業願景:
 Providing affordable, high guality vehicles to consumers.

林理事長改了兩個字,做為結語:

Providing affordable, high guality cities to citizens.



二、名古屋城(名古屋市中区本九1-1)

Nagoya Castle

名古屋城別名金鯱城,由德川家康建造,是日本 100 名城之 一,也是日本政府認定的特別史跡之一,憑藉其宏大的規模和優 美的外形而成為名古屋的地標。



名古屋城位於名古屋市的中央,裝飾在城堡望樓-天守閣屋脊上的金色獸頭瓦最爲有名。1612年,當時的江戶幕府將軍-德川家 康修造了名古屋城,到1867年政治改革幕府倒臺之前,它一直都 是德川三大家族之一的尾張德川家族的居城,極盡奢華。第2次 世界大戰中於1945年受空襲,大部分被燒毀,1959年重建天守閣, 改爲地下一層地上七層的鋼筋混凝土建築。從那以後,天守閣的 秀姿一直是名古屋的象徵。本丸御殿城主的住處預定在2017年度 完成復建。 城堡內1至5層是展示室,陳列與尾張德川家族有關的各種 物品等說明名古屋城歷史的資料在以名古屋城爲中心開闢的名城 公園,不少市民樂於在此散步休閒。











金のシャチ

鰊は空想上の生き物で、水を呼ぶと言われることから火除けのまじないと されてきました。名古屋城の創建時の金鯱は、徳川家の権力・財力を誇る もので、貼られた金の量は慶長大判で1940枚といわれています。





石垣の刻印(刻紋)

城内の石垣には多種多様の記号を刻んだ石があります。 これは石垣の築造を命じられた諸大名が、他大名の石と区別するために 刻んだ「目じるし」です。



▲さまざまな刻印

名古屋城の生い立ち

関ヶ原の戦いに勝利した徳川家康は、慶長14年(1609)豊 臣方への備えとして名古屋城の築城と、清須から新城下へ の街まるごとの引越しを決定。この新たに造られた碁盤割の 街が現在の名古屋の原型となり、町や橋の名前も受け継が れています。

慶長15年(1610)名古屋城築城にあたって徳川家康は、加 藤清正・福島正則ら西国大名20家に普請(土木工事)を命じ ました。これを天下審請といいます。天守や櫓の作事(建築工 事)は小還流州・中井正済らに命じられ、慶長17年(1612) にほぼ完成しました。尾張初代藩主として家康九男の義直が 入り、以降名古屋城は御三家筆頭尾張徳川家の居城として 栄えました。

維新後も名古屋離宮としてその美しいたたずまいを誇った 名古屋城は、昭和5年(1930)、城部建築における初めての 国宝に指定されましたが、昭和20年(1945)の名古屋空襲 によって本丸のほとんどを焼失しました。しかし、名古屋のシ ンボルとして天守の両連を望む市民の声は日に日に高まり、 昭和34年(1959)ついに天守が再建されました。

名古屋城本丸御殿は、文献や古写真、実測図、輝墾画など多 数の豊富な資料が残されており、史実に忠実な復元が可能 であるため、平成21年(2009)に復元工事に若手しました。 そして、平成25年(2013)5月29日、玄関と表書院の公開 が始まりました。全体の完成は平成30年(2018)をめざして います。





名古屋城東側是一片建於17世紀的住宅和外塗泥灰的倉庫等 建築物。城堡南側是連片的行政大樓區,古色古香的舊時屋宇和 現代新穎建築物協調地融合在一起所形成的市容,是名古屋城周 圍一道獨特的景觀。

(http://www.welcome2japan.hk/location/regional/aichi/nagoyajo.html)



三、リニア・鉄道館(名古屋市港区金城ふ頭 3-2-2) SCMAGLEV and Railway Park

以東海道新幹線為主,展示從既有路線到新時代超電導磁懸 浮式超高速列車的車輛,進而介紹「高速鐵道技術的進步」。實 物以外,並且用模型和模擬列車,介紹學習鐵路的組成與歷史。







四、オアシス21(名古屋市東区東桜1-11-1)

Oasis 21

這裡是兼具公車站功能的公園。可以在高14公尺的玻璃制水 宇宙船上高空漫步,也可以參加銀河廣場舉辦的各種活動。當然 這裡也不乏豐富多彩的購物商店以及美味可口的餐飲店。從車站 乘地鐵,5分鐘就可以到達市內代表性的繁華街「榮」。

當我們參訪此處,看到都市活動帶引出來活力與休閒,有人 野餐、有人熱舞,交織一幅快樂、悠閒、健康的生活圖像,在百 貨商店林立的市中心,建造了以水中太空船為主題的 OASIS21,它 是一個環境關懷型的立體公園,準備承載居民的日常想像起飛。





第五章、心得與建議

名古屋市因第二次世界大戰受到美軍空襲,有了重新思考都 市復興的契機。本次國際都市計畫研討會選在名古屋舉行,除了 在研討過程中,學習各國在都市計畫相關領域的研究成果以外, 更在這個可以同時看到「古城」、「工業城」與「機器人」的都 市紋理下,豐富了我對傳統都市功能的感知。

探索過去、立足現在並展望未來,甚麼樣的都市,才能符合 未來都市空間生活使用的優良載體?在追求科技發展的同時,我 們必須面對氣候變遷、國土防災安全、高齡少子化等種種課題, 對未來都市的想像,相信每個人心中都存在不同的藍圖景象。





都市亦為社區的結合體,這次參訪了Tsukiji社區,我非常 喜歡這個面積不大,但卻豐富居民生活的社區中心。透過老人家 分享對社區及這片土地空間的情感,以擺設舊式的老家具、牆上 的老照片,教育社區的小孩們,可以看到傳統歷史生活的智慧, 另在社區共同解決棘手的社區問題過程中,所凝聚的共識力量。 這樣的討論方式並不新穎,但卻踏實;最好的「宜居城市」條件, 就是活出「我們的日常」!

本次參加國際研討會之主要心得與建議包括:

- 透過學術論文發表,可培養同仁學術研究實力,提升本會之國 際能見度。
- 2. 藉由持續觀察各國在國土規劃及都市發展領域的創新研究,納 為我國研究「前瞻國土規劃及宜居城鄉」之參考。
- 社區營造、社區防災、科技發展、都市活力及創造符合高齡少子化社會空間使用等,都是宜居城市所需要跨域整合之思考元素。

Livable City Center in the Age of Linear Chuo Shinkansen Prospects for Planning in Nagoya's City Center

Akito Murayama, Ph.D.

Associate Professor, Urban Land Use Planning Unit, Department of Urban Engineering, School of Engineering, The University of Tokyo

Super Mega Region by Linear Chuo Shinkansen

- The next generation magnetic levitation (maglev) Shinkansen or "bullet train"
- Shinagawa, Tokyo Nagoya section (286km, 86% in tunnels, 40 minutes) will be in operation from 2027, 10 years from now
- Construction of tunnels, tracks, stations, etc. is underway
- Open-cut construction of Nagoya station (underground) will have significant impact to buildings and public spaces above ground
- Formation of Tokyo Nagoya Super Mega Region will have unimaginable impact to Nagoya City and the region: change in time distance
- Nagoya is also "the largest local city"



http://www.nippon.com/en/features/h00041/ International In

Growth Potential Ranking of Selected 100 Cities in Japan

Conducted by Nomura Research Institute (July 2017)

		1st	2nd	3rd	Nagoya City
Comprehensive ranking (both current status and future potential)		Tokyo	Fukuoka	Kyoto	Not in top 10
Potential ranking for local hub (gap between future potential and current status)		Fukuoka	Kagoshima	Tsukuba	Not in top 10
Ranking of	Atmosphere to accommodate diversity	Tokyo	Sapporo	Sasebo	Not in top 10
Industrial Emergence	Efforts to promote enterprise and innovation	Tokyo	Osaka	Fukuoka	8
	Infrastructure to keep industries	Tokyo	Osaka	Toyota	9
	Richness and diversity of workers	Tokyo	Kyoto	Chiba	4
	Livability of the City	Saga	Nara	Toyama	Not in top 10
	Attractiveness of the City	Fukuoka	Kagoshima	Kyoto	Not in top 10
Ranking of Lifestyle	Friendliness to new comers and appropriate natural environment	Kagoshima	Matsumoto	Miyazaki	Not in top 10
	Working/living environment for the retired generation	Kagoshima	Fukuoka	Matsuyama	Not in top 10
	Environment for working and raising children	Matsumoto	Maebashi	Saga	Not in top 10
	Enterprising spirit and environment for small businesses	Tokyo	Tsukuba	Fukuoka	Not in top 10

Arranged based on the presentation by NRI <http://www.nri.com/jp/event/mediaforum/2017/pdf/forum255.pdf>

Global Goals: Sustainability and Resiliency

3 CLIMATE ACTION



11 Make cities and human settlements inclusive, safe, resilient and sustainable

15 LIFE ON LAND

14 LIFE BELOW WATER PEACE, JJSTICE AND STRONG

INSTITUTIONS

16

PARTNERSHIPS For the goals

SUSTAINABLE

https://sustainabledevelopment.un.org/

Global Goals: Sustainability and Resiliency

What is Urban Resilience?

Urban Resilience is the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.

CHRONIC STRESSES

Stresses weaken the fabric of a city on a daily or cyclical basis.

Examples include:

- high unemployment
- overtaxed or inefficient public transportation system
- endemic violence
- chronic food and water shortages.

ACUTE SHOCKS

Acute shocks are sudden, sharp events that threaten a city.

Examples include:

- earthquakes
- floods
- disease outbreaks
- terrorist attacks

http://www.100resilientcities.org

Urban Planning and Development Goals



Livable City Index ©Takanori Fukuoka, Creating Livable Cities, Marumo Publishing Co.,Itd ©EcoDistricts, EcoDistricts Protocol



Aichi Urban Development Vision (2017)

Basic Policies for Urban Planning



Promotion of convection based on local resources in the new era of Linear Shinkansen Promotion of industrial concentration to support the strong regional economy

Aichi Urban Development Vision (2017)

Basic Policies for Urban Planning



Safe and secure living prepared for major natural disasters

Low impact urban development considering natural environment and global climate change

Arranged based on the vision document <http://www.pref.aichi.jp/soshiki/toshi/20170328vision.html>

Nagoya City Center: Landscape and History



Map of Nagoya City Center



Urban Neighborhoods and Community Development Groups









Nagoya Station Area Redevelopment (Personal Proposal)



OPENSPACE DESIGN in central Nagoya Nagoya Urban Institute, 2013




















Sakae Area Regeneration





Fushimi Area Urban Development Vision













Food Carts along the Edge of Surface Parking Lots (Portland)









Low-Carbon Model Districts in Nagoya City



Nishiki 2 Low Carbon District Community Development Project

16 Blocks in the City Center, Many Prop. Owners Nishiki 2 Community Development Council, Nishiki 2 Community Council Coalition and Nishiki 2 District Block 7 Urban Redevelopment Preparation Union



Komei Property Development Project Former Industrial Land near Nakagawa Canal Toho Gas Co., Ltd., Toho Fudosan Co., Ltd., Mitsui Fudosan Co., Ltd. and Mitsui Fudosan Residential Co., Ltd.

Nagoya City Urban Planning Information Service (2010 Base Map)

Nishiki 2 Community Development Vision and Organization



Community Vision (2011, 56p document)



Nishiki 2 Community Development Council, Project Teams + Low Carbon District Management Team

Nishiki 2 Community Development Goals and Policies



Nishiki 2 Land Use Policy and Public Space



Nishiki 2 Incremental Urban Regeneration



Nishiki 2 Block 7 Urban Redevelopment Project

- Construction Period: 2018-2020
- Area: 1.1ha (Whole Block)
- 41 Floors、Floor Area: 48,100 m²
- 300 Residential Units, Retail and Parking Garage
- Inner Courtyard and Alleys
- Center of Area Management





Nishiki 2 Community-Led Low-Carbon Projects







Sidewalk-Widening Social Experiment "Chojamachi Wood Terrace"





Sidewalk-Widening Social Experiment "Chojamachi Wood Terrace"



Nishiki 2 Wooden Benches



Nishiki 2: Eco-Renovation of the Aged Buildings





Nishiki 2: Public Seminars for Learning and Mobilization





Summary

- Open-cut construction of Nagoya station (underground) will have significant impact to buildings and public spaces above ground > a personal proposal to develop a linear urban park (2013)
- Formation of Tokyo Nagoya Super Mega Region unimaginable
- Nagoya region has a great industrial (manufacturing) base
- Nagoya City should work on livability and attractiveness of the city that can accommodate diverse lifestyles > growth potential
- Achievement of urban sustainability and resilience is a key in global competition
- Not only large-scale urban redevelopment projects but also human-scale urban neighborhoods are important to increase urban diversity and attractiveness
- Nishiki 2 Low-Carbon District is a pioneer case of "building vibrancy from the neighborhood up" - EcoDistricts
- Elements of livable urban center: mixed-use with more residential emphasis, human-scale, bus and bike on ground, attractive parks and open spaces, community places, etc.
- Careful urban center planning and neighborhood regeneration essential

Experiences of Livable Transit-Oriented Development surrounding Taiwan High Speed Rail Stations

Prof. Feng-Tyan LIN President, Taiwan Institute of Urban Planning ftlin@mail.ncku.edu.tw

Content

- Introduction
- Case study :
 - HsinChu
 - Taoyuan
- Discussion



History

- 1987-1990, Institute of Transportation, Ministry of Transportation and Communications, completed feasible study.
- 1992, Construction project was approved by the Execute Yuan (the central government).
- 1993, the Legislation Yuan (the Congress) asked the project should be carried out by BOT.
- 1994, Statute for Encouragement of Private Participation in Transportation Infrastructure Projects was passed.
- 1996, proposal was requested.
- 1998, BOT contract was signed.
- 1999, special district plans associated with High Speed Rail Stations were made.
- 2007, the construction project was completed, and began commercial operation.
- 2017, the 10th anniversary

Positioning of 5 major THSR stations

Station	Total area	Core industry area	Major project
Taoyuan	490	22	International business
Hsinchu	309	38	Bio-medical technology
Taichung	173	16	Branches of the Central Government
Chiayi	135	10	Tourism and Exquisite agriculture
Tainan	299	47	Green energy and ecology

Livable city / community

- While every city wants to be a (the most) livable city, it is very difficult to define what livable city / community is.
- The indicators of livability may vary for different cities in different development periods to pursue different goals or solve different urban issues.
- There are connections among concepts of livability, sustainability, smart city...

Indicators of Livability for THSR Station Special District Plans in Taiwan

- Land use plan
 - Low/ middle population density
 - Sufficient public spaces
 - transportation system
- Infrastructure construction
 - Green and Smart facilities
- Development
 - Population
 - Building (house) price
 - Building vacancy

Case 1: THSR HsinChu Station special district plan

- 1999, the first version of land use plan was announced.
- Target population at 2020 is 45,000 persons, population density : 363 persons / ha.
- Public space: 42.37%
- Three green belts for walking and biking along rivers.
- Schools, public buildings, and open spaces should be connected by green belts.
- Construction projects should be approved by the Urban Design Commission.







Population/household growth



https://www.mobile01.com/topicdetail.php?f=458&t=4107776

Housing price





60

Number of new buildings by quarters (2014-2016)



Case 2: THSR Taoyuan Station special district plan

- 1999, first version of special district plan was made.
- 2004, revising the plan for introducing a multi-functional base ball field and rapid transit plan connecting Taoyuan airport and Taipei city.
- 2012, revising the plan for introducing an international medical industry park.
- 2014, revising the plan for adapting the projected population and tourisim growth

THSR Station Special District Land Use Plan

- Target population at 2021 is 60000. Population density is 350/ha
- Public space (road, parks, station, public buildings, schools, sport fields, parking lots, power station, environmental protection, rapid transportation) is 42%
- Residential area, FAR: 200%, coverage: 50
- Commercial area category 1, FAR: 240% · coverage: 70%
- Commercial area category 2, FAR: 300% · coverage: 60%
- Encouragement policy:
 - Development with 3 years, increasing FAR 10%; 5 years, 5%
 - In residential area, development site larger than 10,000 M², increasing FAR 20%
 - In commercial area, development site larger than 20,000 M², increasing FAR 20%

THSR Station Special District Land Use Plan

- Core industry area:
 - **FAR: 240%**
 - Bio-medical technology
 - Exhibition Hall
 - Education
 - Recreation
 - Airport services







Population Growth of TaYuan













Discussion

- What is the meaning of "Livable city/community"? current or future status?
- How big the gap between planners and developers?
- How to adapt to / coordinate with national economic/industry policy?
- In addition to land use plan (zoning), how to make a realistic development plan?
- Is Tobler's First Law of Geography held?
 - closer values are more strongly related than are more distant ones
 - How far?
- New technology brings new challenges and opportunities.

Thank you for your attentions!

Investigation on building permanent housing as a reconstruction policy after disasters

Tu,Pei-ching*

Abstract

Numerous models regarding post-disaster rehousing policies have been proposed in Taiwan. The direct and immediate provision of permanent housing by the government instead of pre-fabricated or interim housing after Typhoon Morakot has been a innovated measure for post-disaster rehousing across the world. However, rebuilding a "home" is not as simple as providing a house for someone to live in. For indigenous people in particular, the concept "home" or "traditional area" involves more than buildings for people to live in." The Taiwanese government promoted a post-disaster housing reconstruction strategy based on land theory and ignored the indigenous people's feelings toward and identification with their land. This study offers recommendations and coping strategies for post-disaster rehousing policies from migration, role-based, subjectivity, participation and functionality perspectives.

Keywords: pre-fabricated housing, interim housing, permanent housing, traditional areas, post-disaster rehousing policies

*

Assistant Technical Specialist of National Development Council

Ph.D. Candidate, Graduate Institute of Building and Planning, National Taiwan University, Taipei, Taiwan. Email:d97544003@ntu.edu.tw. The fish, Even in the fisherman's net, Still carries, The smell of the sea.¹

I. Introduction

Torahiko Terada, a Japanese expert on disaster prevention, once said, "Natural disasters befall the world when they are forgotten." Toward the 10th anniversary of the devastating Jiji earthquake, Taiwan was ravaged by Typhoon Morakot, whose name has since been stricken from the rotating list of names for tropical cyclones adopted by the Typhoon Committee of the World Meteorological Organization.²

Policies on resettling those affected by Typhoon Morakot have been implemented in several different forms. The Taiwanese government implemented a housing reconstruction plan in the beginning stages of postdisaster reconstruction that provided permanent housing instead of prefabricated or interim dwellings; no such initiative had been previously undertaken elsewhere in the world. However, a postdisaster housing reconstruction plan should include rebuilding homes to maintain local people's emotional bonds with their home locality. This is particularly so in the case of the indigenous peoples in Taiwan, who tend to identify closely with their mountainous homeland and perceive their homes as more than just a house or apartment.

I conducted several field interviews with residents of this permanent housing, one of whom stated: "Neither the government nor the locals perform reconstruction alone; they work together. Only by involving themselves in reconstruction can locals identify with their rebuilt homes." Hsia and Chao (2009) shared the same view, arguing that a postdisaster housing reconstruction plan cannot simply be reduced to a heroic act of rebuilding homes for victims or as a public display of humanitarianism. Instead, such plans may represent enormous changes to victims' residential areas on social, economic, and political fronts.

This argument inspired the research question of this study: Is the permanent housing that is built by the government and charities a "home" for victims of natural disasters? To answer this question, I spent 7 years reviewing relevant literature and conducting fieldwork observations and interviews. This study period may seem lengthy but pales in comparison with the length of time that indigenous Taiwanese who lost their homes to Typhoon Morakot have spent in permanent housing—temporarily or even for the rest of their lives.

II. Home, traditional territory, and relocation

The meaning of home differs between indigenous and Han Taiwanese. For indigenous Taiwanese, a home has deeper and more sophisticated meanings: house, family name, kinship, land (or traditional territory), community, ancestral spirit, and culture. How the meaning of home changes in the mind of indigenous people relocated post disaster warrants investigation.

Meanings of home: indigenous vs. Han Taiwanese

Differences between "home" and "house" were the main issue addressed in this study. Han Taiwanese perceive a dwelling as the embodiment of "home," whereas their indigenous counterparts see "home" not only as a dwelling but also as a material and spiritual vehicle for living one's life at a given place.

In *House as a Mirror of Self*, Marcus (1995) argues that a place of residence is "the echo of individuation" and plays a vital role in one's journey of life. When a person heeds a given thing and becomes emotionally connected to it, a deeper and predominantly unconscious individuation process (i.e., a process of transforming into the actual self) occurs. Moreover, as a person matures over the course of their life, what affects their psychological development includes emotional connections to other people and to physical environments valued in childhood. Humans value land above all else, partly because we tend to look at the world in an "anatomized" fashion (Hsu, trans. 2000).

Gadeljeman (2014) suggested that, from the perspective of the Paiwan, the Taiwanese indigenous community to which he belongs, a home houses tribal people, connects them with neighbors, and provides for cultural production. Similar to the Paiwan, the Rukai (another indigenous people) tend to anthropomorphize their houses. Thus, once a house is destroyed and rebuilt into a shelter, the meaning of home in the mind of the indigenous peoples starts to shift, affecting the social fabric and culture of their communities. Such a structure is also out of tune with the social, political, and cultural landscapes of their daily lives. Furthermore, forced relocation may undermine the psychological, social, and cultural meanings imparted by aboriginal people to their places of residence and even threaten their existence.

Traditional territory: from land to tribe

Over the past four centuries, indigenous peoples have experienced dramatic changes in their relationship with the land (Lo, 2007). Their "traditional territories" have been invaded by colonial powers and subjected to national policies. Because their occupants were frequently forced to relocate and were denied access to their former home territories, the scope, locations, and sociocultural foundations of these territories can be reshaped or reconstructed only largely through memory. A traditional indigenous territory typically
spans 1) an indigenous reserve, 2) land on which their ancestors used to grow crops and perform rituals and on which their shrines are located, 3) old tribe lands and their peripheral lands for farming and hunting, 4) land submerged by lakes and rivers and used by indigenous peoples, 5) waters on which fisheries managed by indigenous peoples are located, and 6) land expropriated by the government and currently left idle or unused.³

Taiban (2008) noted that the names of residential areas, farmland, and hunting grounds, as well as tales associated with these places, are part of the oral history of a tribe, represent memories shared by tribe members, constitute a human–land atlas that connects the past with the present, and provide an essential means of cultural transmission. Taiban added that these intangible elements, which encode collective identity and relate to spatial imaginations based on cultural contexts of a tribal community, establish an emotional connection between cohabitants and the homeland. However, residential areas, farmland, and hunting grounds undergo constant changes, as do the other spaces and landscapes in traditional territories. They are the venues in which conflicts, disputes, and compromises occur among knowledge, power, and ideology.

Chen (2010) drew on the interpretation of Sakuliu Pavavalung (an indigenous artist of the Paiwan) about the time-honored precepts of tribal development instilled by elders in his tribe, reporting that a tribe's existence and development depend on 1) clustering, unity, and collective identity among residents; 2) land that can be used sustainably for livelihoods; and 3) a philosophy and concrete ideas concerning the sustainable development of the tribe and rights of autonomy. When all three of these criteria are met, a tribe can use external resources to supplement its development.

Relocation: reorganization or disintegration?

Relocation involves moving individual households or an entire community from a highly vulnerable area to another area for resettlement or housing reconstruction to reduce the potential consequences of impending disasters when the original dwellings are rendered unfit for human habitation as a result of a disaster. A rigorously formulated relocation plan involves not only rebuilding homes but also reorganizing and developing a community and empowering members to regain the lifestyle they once led. Therefore, these plans concern the restoration of homes, livelihoods, community, environmental wellbeing, and social functioning (Jha, Barenstein, Phelps, Pitter, & Sena, 2010; Shieh, Chen, & Lin, 2013)

Permanent migration from disaster-stricken areas may undermine family bonding, the sense of belonging and identification with the community, and employment stability. Furthermore, the psychological stress and cultural separation that the displaced experience may threaten their existence and the survival of their community (Goldhaber, Houts, & DiSabella, 1983).

Factors contributing to the failure of a relocation plan may include 1) an unsuitable relocation site, 2) remoteness from work and social sites, 3) improper residential design and

inadequate relocation site layout, 4) limited community participation, and 5) underestimating the relocation costs (Jha et al., 2010; Shieh et al., 2013).

Thus, Shieh et al. (2013) argued that because relocation may cause the mechanisms underlying tribal intragroup communication and their original lifestyle to disintegrate, it involves not only legislation, demolition and transfer, compensation, reconstruction, and resettlement but also presents social, economic, political, and cultural issues.

III. Policies on permanent housing

Hank Du, former chairman of World Vision Taiwan, shared his view on what counts as permanent housing (Ho, 2013): "Discussing reconstruction produces many misconceptions about 'permanent housing.' What does 'permanent' mean? We should see it from the perspective of 'home' rather than 'house.' The thing is: helping residents to live with their tribal relatives and their families helps them function. The tribal culture and family values live on, not a 'house.'"

Contributing factors in the formulation of permanent-housing policies

Declining presence of prefabricated housing

Overall, 314 prefabricated and interim homes were estimated to have been built in nine resettlement areas in the aftermath of Typhoon Morakot. This figure pales in comparison with the resettlement method implemented following the Jiji earthquake, which focused on erecting prefabricated homes. Indeed, prefabricated housing construction following the earthquake preceded several resettlement controversies, such as the renewal of resettlement land lease, disputes over the consolidation of the land, demolition of prefabricated homes, and subsequent resettlement.

Government preference for permanent housing

To assist Typhoon Morakot's victims to rebuild their homes, the Taiwanese government launched a resettlement initiative that focused on permanent-housing construction, discarding its former solution of prefabricated and interim housing construction. On August 17, 2009, the Executive Yuan announced that it would work with five domestic private-sector organizations to build prefabricated and permanent homes for victims. On August 29, then-Premier Liu Chao-shiuan, chaired the fifth working group meeting of the Morakot Typhoon Post-Disaster Reconstruction Council, reaffirming that "The resettlement plan prioritizes permanent homes over prefabricated ones. Prefabricated homes under construction will be completed as planned. Please confirm the number of homes needed in each affected area and adjust it whenever necessary" (Shieh et al., 2013). Thereafter, permanent-housing construction became the focus of debate for housing the typhoon victims.

Does permanent housing suit the victims?

- Relationships between the government, public sector, and victims That the government provided land for resettlement and built public facilities and the private sector financed permanent-housing construction seemed beneficial to the typhoon's victims. However, the victims staunchly rejected this option. The housing reconstruction plan should have more effectively accommodated the victims' needs.
- Align permanent housing closely with the victims' needs

In Austronesian societies (the native aboriginal languages of Taiwan belong to the Austronesian language family), the house and the body are perceived as "a meaningful, complex network, and a cognitive model for forming, pondering, and experiencing the world" (Carsten & Hugh-Jones, 1995; Chiang, 2008). In many Austronesian cultures, a house denotes the structure of a dwelling, underpins the combination of different social relations, and serves as a ritual venue, a person's birthplace and a collection site for family legacies (Waterson, 1998; Chiang, 2008).

This leads to the question of for whom the permanent homes occupied by indigenous Taiwanese were designed. Bih (2000) maintained that residential buildings may be instrumental in individual development because they afford security and a sense of control, reflect personal values, and ensure continuity and timelessness.

Hsieh, Cheng, and Cheng (2011) observed that permanent-housing plans are based on the prevailing Chinese concept of home, rather than family kinship (which indigenous peoples attach importance to), and overlook the traditional role of an indigenous house in preserving and propagating cultural practices such as hunting, worship, farming, and socializing.

Competition among aid providers

The private entities involved in post-Morakot recovery work scrambled to reconstruct homes for victims. This explained why some private organizations (e.g., the Tzu Chi Foundation) were more efficient than their public-sector counterparts at undertaking response operations and mobilizing rescue workers in the wake of the Jiji earthquake. As such, the objectives of private housing reconstruction efforts for typhoon victims might have affected policymaking on their resettlement.

Policies on postdisaster resettlement and village relocation

Tribal villages in Taiwan have relocated or been relocated because of natural disasters, political unrest, and disease. Most geographical areas affected by Typhoon Morakot are in the mountains, where indigenous hamlets are concentrated, and relocating these villages has been a vexatious issue. In some countries, those who lose their homes and jobs because of a disaster normally leave to move to regions where they can seek employment; they are rarely asked to do so by the government (Shieh, Chang, Tsai, & Wang, 2008). In Taiwan, postdisaster relocations are largely because of government intervention, which is usually the case for tribal villages. Thus, since Typhoon Morakot, permanent housing and village relocation have been equated, either intentionally or unintentionally.

Nationwide smoke-signal campaign

Tribal villages across Taiwan send smoke signals annually on February 28 since 2008 to raise public awareness of their dignity. They used the same means to make their views heard in regard to post-Morakot housing reconstruction.

On the evening of August 6, 2010, indigenous peoples rallied in front of the Presidential Office to protest "forced relocation" and "segregation" and petition for the reconstruction of their homes in their tribal villages.

Chuan (2010) presented an overview of the indigenous peoples' expectations and opinions about housing reconstruction early on following the disaster:

- Provide interim housing as a temporary resettlement solution to allow adequate discussion about long-term relocation among tribal people;
- Preserve the rights of indigenous peoples to farm on their land and protect their mountainous homes; and
- Ensure that indigenous culture has a central role in reconstruction.

IV. Allocation and construction of permanent homes

Wang (2012) reported that tribal villages had enforced their own regulations on separation household registration, and to handle mass relocation, they also needed to determine the number of households needing housing reconstruction (Wang, 2012). However, the government estimated the number of tribal households needing housing reconstruction according to household registration data as of August 8, 2009, the date when their homes were destroyed by Typhoon Morakot.

According to the Morakot Typhoon Post-Disaster Reconstruction Council, 3,544 permanent homes were built on 42 sites across 7 administrative regions. The government had pledged to erect permanent housing mainly on safe sites within the indigenous peoples' home villages or regions. However, of the 3,096 households resettled in permanent housing,⁴ 2,746 (88.7%) were resettled in other regions, whereas only 208 (6.7%) remained in their home villages and 142 (4.6%) in their home regions (Shieh et al., 2013).

Eligibility

The Ministry of the Interior provided permanent homes built by private organizations to victim households in each affected region that possessed a certificate of ownership of property, had no certificate of ownership of property, or held a certificate of possession of land and proof of payment of water and electricity bills and allocated a house of 14 *ping* to a household of 1 to 2 people, a house of at most 28 *ping* to a household of 3 people or more, and a house of at most 34 *ping* to a household of 6 or more people. Each local government collaborated with private-sector organizations to construct permanent housing and adjust the construction plan depending on actual circumstances.

Rebuilding permanent housing with indigenous cultural characteristics

Taiwanese indigenous peoples traditionally construct their homes independently and in accordance with their social statuses and their ancestors' in relation to the tribal community. However, most indigenous people displaced by Typhoon Morakot were forced to stay at permanent homes whose styles and locations did not meet their expectations, and they had to rebuild their social networks and struggle with the emotional loss of their home villages and with limited opportunities for making a livelihood (Wang, 2000: 164; Chian; 2009; Hsieh et al., 2011: 143).

On January 18, 2011, the Council of Indigenous Peoples launched a project to reproduce indigenous cultural characteristics in the permanent homes for indigenous people in the aftermath of Typhoon Morakot. The project was completed on June 30, 2012; each participating permanent-housing household was offered up to NT\$100,000. This initiative strove to preserve not only language, song and dance, and historical documents on other cultural elements for permanent-housing members of each indigenous group but also their "cultural landscape" and "collective memory." In addition to restoring indigenous cultures in permanent housing, the council commissioned local architects conversant in cultural ethics and conventional architectural techniques to reconstruct homes in collaboration with the residents. In brief, the project involved rebuilding permanent homes and public spaces at relocation sites according to the ethical values, architectural styles, and cultural characteristics reflected in indigenous buildings.

In the case of the permanent homes built for indigenous people from Kucapungane (a Rukai aboriginal village located in the mountains of Southern Taiwan), the homes were decorated in a manner that enhances their aesthetic appeal, reflects the social order and ethical values of the Kucapungane community, promotes its cultural heritage and spatial layouts of buildings, embodies shared values and norms among villagers, and engages displaced villagers in self-healing (Taiban, 2012).

V. Issues on post-Morakot housing reconstruction

Relocation: voluntary or forced?

The history of indigenous peoples is a trace they have left on geographical landscapes, which is a dynamic path characterized by constant migration (Chiang, 2009).⁵

The present study explored whether the need to relocate in the wake of Typhoon Morakot could have been determined at tribal meetings. Because migration is part of indigenous history and matters to the livelihood of indigenous individuals, is it possible to view the hardships of the forced post-Morakot relocation positively?

The emotional attachment of indigenous peoples to their mountain homes has been extensively perceived as a critical evaluation factor in postdisaster housing reconstruction. The construction of permanent housing based on the Han Chinese notion of home has been associated with permanent-housing residents' emotional separation from their original home lands. Moreover, the occurrence of a natural disaster can be perceived as a social process characterized by the migration of victims.

Taiban (2012) observed that policies on resettling victims into permanent homes "in one go" are efficient but ignore long-term victim interactions that is necessary for resettlement to be effective. In addition, such policies should not be formulated in a manner that overlooks the ethnicity and subjectivity of indigenous tribes and the extent of damage to the tribes and the cultural differences between them. He also argued that the anxiety and fear of indigenous people displaced because of natural disasters arise not from "relocation," but "separation."

Role misplacement: Who was in charge of reconstruction?

Post-Morakot housing reconstruction entails collaboration between public- and private-sector organizations. Notably, nongovernment and religious entities played an active role in the construction work, and whether this has caused changes to existing models of capital accumulation and social division of labor warrants investigation.

Furthermore, this reconstruction initiative may constitute a fresh topic of research in the sociology of disaster. The government, private-sector organizations, and victims all played a part in the success of the initiative. This initiative required a balance between give and take and mutual respect between contributors and recipients, and all participants should fulfill their roles properly.

Subjectivity: Marginalizing indigenous cultures?

"Once risk evaluation is premised on empirical evidence, the general public's description and interpretation of their experience with disasters end up being dismissed as pseudoscience and ignored" (Taiban, 2012: 82). This summarizes the question raised by Taiwanese indigenous peoples: for whom are permanent homes built?

Private-sector organizations that help indigenous people in their housing reconstruction typically place a limited emphasis on their cultures. Although policies on the social welfare of indigenous populations in Taiwan prioritize the wellbeing of tribes, the concept of "tribe" in this context is defined as "the venue at which an initiative is implemented," rather than "the basis of which an initiative is developed."

The suppressed subjectivity of Taiwanese indigenous populations can be attributed to a long history of being colonized. Having been colonized for nearly 400 years, they are transitioning from "earnestly accusing the government of suppression" to "tracing their roots in tribes" to decolonize themselves (Wang, 2012). Thus, postdisaster housing reconstruction for the indigenous peoples should be based on "tribal regeneration," which involves revisiting the constitutive elements of a tribe to rebuild harmonious coexistence between the people and the land (or nature) and between community members (Chen, 2010).

Even when Taiwanese indigenous people relocate, their ancestral spirits call out to them. For example, urban-dwelling members of the Kucapungane and Buliblosan tribes return each year to reconnect with their ancestral spirits, thus instilling the notion of "remembering where you came from" in their future generations.

Participation: Who should lead the reconstruction initiative?

Shieh (2012) reported low participation and weak discretionary rights of the victims throughout the post-Morakot housing reconstruction process. Indeed, safety evaluation used criteria determined through expert consensus and was conducted by evaluators investigating the physical environments of the victims' original places of residence; the former occupants' experiences and knowledge played no part in the evaluation.

"Participation" and "subjectivity" are related to each other. The victims should have been tasked with playing the lead role in the reconstruction of their houses, whereas publicand private-sector organizations should have facilitated rather than dominated the reconstruction initiative's implementation.

Functionality: Is permanent housing a "house" or "home"?

Taiban (2012) reported that "the Kucapungane have moved from high mountains to the foothills, but they continue the habit of doing physical work." Gadeljeman (2014), indicated that the custom of the Paiwan to anthropomorphize their properties demonstrates how mankind understands the world by embodying it. Gadeljeman added that the Paiwan's understanding of their homes and tribes is based on their personal experiences, which pertain to the spatial, temporal, and social contexts of everyday life; only when they move from their home environment to a foreign setting (e.g., a space constructed in the aftermath of a disaster) do they start to more profoundly appreciate the spatial uniqueness, cultural practices, traditions, and close-knit interpersonal ties within their tribes.

Having said that, the question remains as to whether permanent housing provides a homey environment for indigenes. Lin (2011) argued that housing reconstruction should depend not on the speed but on the rigor of its implementation—and more crucially, on the victims' involvement. Furthermore, reconstructing a home should entail ensuring the preservation of family units, the resumption of residents' relationship with the community as a whole, their harmony with nature, and consensus among members of the same tribe should be a prerequisite to implementing a long-term resettlement solution.⁶

When I participated in a training program, I described to 20 other trainees from different countries how post-Morakot home construction had been implemented. Graham Tipple, a British instructor of the program, asked me a difficult question: "Do you think the Taiwanese government should provide free housing to the victims? Does the government need to do that?"

His question led me to ponder whether a "home" should be created by residents themselves or offered by the government.

VI. Conclusions

Postdisaster reconstruction plans that include relocation without interim resettlement are not consistent with the World Bank's criteria for successful relocation (i.e., resident participation, adequate communication, cultural compatibility, sense of belonging, low social risk, similar housing design, and properly established public facilities (Jha et al., 2010; Shieh et al., 2013). When relocation is deemed crucial to postreconstruction, the selection and layout of relocation sites, housing selection, infrastructure construction, livelihood restoration, and assistance strategies must be sufficiently discussed with the victims, receiving communities, and stakeholders. During the discussion, victims should not be asked to make a rash decision or forced to leave their original homes, and their cultures and lifestyles should be respected (Ahrens & Rudolph, 2006; Jha et al., 2010; Shieh et al., 2013).

On the basis of the aforementioned arguments, the present study suggests several solutions for building permanent housing that can become true homes for disaster-displaced indigenous peoples:

Offer a wide choice of reconstruction models

Permanent housing can be a "choice" rather than a "must" for displaced victims. The Taiwanese government justified the legitimacy of permanent housing on the grounds that "interim/prefabricated homes would be a waste of resources." This viewpoint seems cost-effective; however, postdisaster reconstruction should also address the social, environmental, political, cultural, and industrial issues.

Respect the rights of indigenous peoples to decide whether to relocate

An indigenous person's home locality should not be characterized as "unspoilt" or "pristine" (Lin, 2009). The political, political, and cultural landscapes of indigenous tribes across Taiwan have changed because of (a) land policies and disputes bequeathed by successive colonial governments, (b) market economy logic adopted by a capitalist economy, (c) political manipulation in the electoral context, and (d) legal restrictions (e.g., laws on soil conservation). Accordingly, the life of indigenous communities is characterized by constant changes on different fronts.⁷ In brief, indigenous peoples displaced because of disasters should not be obliged to move to resettlement areas deemed safe by the government; they must be allowed to decide whether to relocate.

■ Re-examine the roles of all parties in reconstruction

Public- and private-sector organizations should serve as facilitators to meet the needs of victims, instead of controlling reconstruction. Having found during this field study that what Han Taiwanese perceive to be "good" does not necessarily resonate with their indigenous counterparts, I learned to see things from different perspectives.

Deepen the involvement of the beneficiaries of reconstruction

The success of housing reconstruction depends on whether its beneficiaries are clearly identified. Moreover, beneficiaries given a high degree of involvement in reconstruction can strengthen their bonds with their resettlement sites, as well as existing residents' emotional attachment to their reconstructed homes.

• Explore the possibility of making permanent housing true homes

Other conditions should also be satisfied to transform a permanent house into a home. For example, businesses can be encouraged to operate in the vicinity of permanent housing for residents to make a living. If the residents cannot settle successfully, they may return to the mountains or simply leave the permanent housing. If that is the case, can the government properly respond?

After all, "the fish, even in the fisherman's net, still carries the smell of the sea."¹

Notes

- 1 Cited from *I saw Ramallah*, an autobiographical book by Palestinian writer and poet Mourid Barghouti. In this book, the author waxes emotional about his return to his hometown, Ramallah, after having spent three decades overseas.
- 2 In total, 140 entries are on the rotating list of names for tropical cyclones that have been determined by 14 members of the Typhoon Committee of the World Meteorological Organization. On January 2011, Typhoon Morakot was retired from the list because of the enormous damage it had caused to Taiwan. Retrieved on March 16, 2015, from http://news.ltn.com.tw/news/life/paper/49726
- 3 Retrieved from <u>http://www.tiprc.org.tw/epaper/03/03_tradarea.html</u> (the 3rd issue of an e-paper published by the Taiwan Indigenous Peoples Resource Center).
- 4 The Morakot Post-Disaster Reconstruction Council put the number of permanent-housing households across Taiwan at 3,544, whereas Shieh et al. (2013) reported 3,096. The present study used the council's statistics on the number of permanent-housing households and used other similar data for reference only.
- 5 Cited from Chiang Bien's (September 1, 2009) introductory remarks to a post-Morakot interdisciplinary seminar on climate change, land conservation, and sociocultural prospects for Taiwanese indigenous peoples. The seminar was hosted by the Institute of Ethnology, Academia Sinica.
- 6 Distinguishing between "house" and "home": Suggestions for Tzu Chi's rationale behind their permanent homes built during post-Morakot reconstruction. Retrieved on March 16, 2015, from <u>http://www.eco.pu.edu.tw/app/news.php?Sn=288</u>
- 7 Cited from the transcript of Lin Yi-ren's (September 1, 2009) talk at a panel discussion on the reconstruction of indigenous tribes in the current politicoeconomic context (subtitled: Are they new, old, or "ancient" tribes?) in a post-Morakot interdisciplinary seminar on climate change, land conservation, and sociocultural prospects for Taiwanese indigenous peoples.

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