## 區域研究及地理學門參訪考察計畫

## 出國報告

出國人員:趙雙駿 助理研究員

出國地區:英國、瑞士、奧地利

出國期間:105年09月04日至105年09月12日

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## 一、考察目的

- 1. 透過親身參訪,拓展我國區域及地理學相關領域學者國際視野並建立聯絡網絡。
- 2. 透過親身訪,瞭解國際社會在區域與地理學術領域的最新近研究課題與 趨勢。
- 3. 利用參訪的機會,維繫國外學界既有之友好關係,並擴展與相關學研單位之交流,尋求合作的方式與可行性。
- 4. 利用參訪與學術交流機會,瞭解區域與都市發展的區域意義。同時,探 討未來在台灣推動區域與地理跨界整合的議題方向與研究方式。
- 5. 進一步地尋求我國區域研究的歐洲合作伙伴,並瞭解、開發可能的議題 內容與合作方式。

## 二、考察對象

- 1. 歐洲在人文區域與地理領域的研究,是甚具制度化與學術發展較高的國家;歐洲的地理、都市發展、運輸系統、觀光、族群聚落相對豐富,堪為學習對象。
- 本次參訪之歐洲國家,包括英國、瑞士及奧地利三國之學術及政府研究機構。
- 3. 英國部分:

倫敦交通局(Transport for London)、倫敦大學的University College London、牛津大學(University of Oxford)、華威大學創新中心(WMG HVM Catapult, University of Warwick)、卡地夫大學(Cardiff University)、卡地夫市政府(Cardiff Council)、威爾斯王國政府(Welsh Government)。瑞士部分:

洛桑大學(University of Lausanne)、伯恩大學(University of Bern)。 奧地利部分:

奧地利社會住宅、維也納Aspern 智慧城市(Smart City)。

## 三、參訪成員

- 1. 成員以具有學科領域代表性、具有國際合作或聯絡管道的學者,並且未來也能繼續參與合作計畫的學者為主。
- 2. 以開拓學術發展的功能性考察為主。
- 3. 以提升學術發展的目的為導向,並以學術發展的未來性為考量重點。
- 4. 成員的專長涵蓋區域研究及地理學門主要的領域;除資深教授外,並引進年輕學者參與,期望能夠鼓勵具發展潛力的優秀中壯年學者專家進入國際學術領導圈,並發揮影響力。
- 5. 為執行本任務型導向之參訪計畫,學門主動邀請考察參訪成員以協助達成此次計畫之任務。同時,本參訪計畫因具任務達成性質,且代表國內科技人文發展之參訪學術團體。因此由學門召集人衛萬明教授領隊,其他團員則將分別代表本學門各次領域之負責學者以執行並完成此行參訪之重要任務,成員共計7位,名單及負責任務分別說明如下:
  - 1) 衛萬明召集人:負責本計畫規劃事官。
  - 2) <u>林楨家</u>共同召集人(交通運輸次領域): 負責 Urban mobility studies。
  - 3) <u>林俊全</u>諮議委員(人文地理及環境次領域):負責英國及瑞士相關 參訪。
  - 4) <u>張珩教授</u>(建築與都市設計、住宅次領域): 負責奧地利及 Smart City 相關參訪。
  - 5) **掌慶琳教授**(休閒遊憩及景觀次領域):負責英國、瑞士、奧地利 觀光休閒學院參訪。
  - 6) <u>林文一副教授</u>(都市及區域、地政次領域):負責英國牛津、卡地 方等大學、威爾斯政府及倫敦交通局等機構。
  - 7) 趙雙駿助理研究員:負責各項行政事務。

## 四、行程概述

s9/5

#### 倫敦交通局

**(一)** 

參訪 Transport for London (倫敦交通局)1,討論議題包含

- 1. TfL's strategies of managing and practicing urban design, walking, Cycling and Cycle Hire in London
- 2. Taiwan's context of Youbike and Smart City research



與會人員合影



參訪團於交通局外合影

## 簡報資料2



By Bruce McVean



By Siva Iyer



By George Weeks



By Brian Deegan

#### 倫敦大學學院

拜訪 Professor Peter Bishop (Urban Design)。Professor Peter Bishop 曾擔任 deputy CEO of London Development Agency,同時身兼倫敦市長的 chief consultant of urban design。參訪團就倫敦及臺灣的都市規劃及發展之經驗進行交流,而 Professor Peter Bishop 以其自身參與的重大規劃案如倫敦奧運為例,提供了許多

<sup>&</sup>lt;sup>1</sup> TFL 簡介

<sup>2</sup> 考量版權,謹以封面代表。

## 有趣的觀點。



召集人致贈紀念品-Professor Peter Bishop



與會人員合影

## 駐英國代表處科技組

拜訪駐英科技組就台英科研合作之現況及未來可能之合作主題進行意見交流。



參訪團於駐英辦事處合影



參訪團與郭組長於 科技組外合影

## 牛津大學

(\_\_)

參訪 School of Geography and the Environment,就重要及未來可能合作之議題如 geographies of mobility; transitions to low-carbon and low-energy living and societies; governance of complex problems situated at the nexus of climate change, sustainable energy and the environment 進行意見交流。



牛津大學地理系外合影



召集人致贈紀念品

The Vivanishine seaded is Europe: The politics of situated base-ledge regions in Brossels-James Johnson.

Subsect of Compagibly and the Euromenta, University of Oxfords

Tennil James gather@men.ma.ii.de

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簡報資料<sup>3</sup> By James Palmer

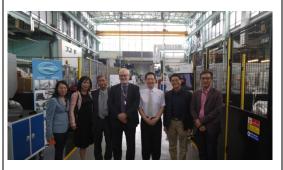
## 華威大學

參訪 WMG HVM Catapult 創新中心。Catapult 創新中心為推動各領域的經濟成長而設立的創新中心,其主要目的是想提供資訊媒合的平臺,使產界、學界能藉由此平臺尋找自身所需之技術、設備、服務或創意想法,讓還在孕育的想法能夠實現,創造高價值產業效能,並吸引企業進而投資。中心初期由英國資金補助,正式營運後由董事會獨立管理,並從研發合約、委託研究等來源爭取經費。參訪團訪問的華威躍進中心,致力於低碳移動與能源儲存與管理,其中低碳移動包刮輕量化的交通、高級推進系統、智能車輛等項目,並希望能與公路、鐵路、海陸的運輸部門進一步合作,開發產品與服務的創新,並藉由經驗分享、技術支持及設備提供,協助企業解決其研發所面臨之困難。

<sup>3</sup> 考量版權,謹以封面代表。

<sup>&</sup>lt;sup>4</sup> Catapult Centre 簡介

## 區域研究及地理學門歐洲考察



與會人員合影- Dr. Nick Mallinson



360 度全景行車模擬室 1



360 度全景行車模擬室 2

#### 卡地夫市政府

(三)

拜會市政府議長都市規劃、交通運輸相關單位主管。聽取卡地夫市政府如何在 城市快速發展的前提下,藉由自行車系統的設置改變居民的通勤方式、生活習 慣來達到永續發展的目標。



召集人致贈紀念品- Councillor Phil Bale



參訪團於市政府大廳合影



簡報資料<sup>5</sup> By Cardiff Council

#### 卡地夫大學

拜訪卡地夫大學地理系。由系主任 Professor Paul Milbournec 帶領系上教師,與 參訪團分享近期研究之興趣,雙方亦就日後可能的合作的主題如經濟地理、公 共腳踏車租借系統、鄉野地理等面向進行初步討論。



召集人致贈紀念品-Professor Paul Milbourne



參訪團與地理系教師合影

#### 威爾斯政府

拜訪威爾斯市政府運輸政策團隊。就威爾斯政府在應用大數據分系交通運輸、 觀光發展以及自然資源管理等議題進行意見交流及經驗分享。

<sup>5</sup> 考量版權,謹以封面代表。



<sup>6</sup> 考量版權,謹以封面代表。

## 洛桑大學(原訂)

(四) 依原訂行程當日上午由英國搭機前往瑞士,惟因班機延誤近5小時,嚴重壓縮 參訪瑞士洛桑大學的時間。

經與洛桑大學聯繫後,取消當日之洛桑大學參訪行程,改由洛桑大學 Institute of Geography and Sustainability 的主任 Emmanuel Reynard 教授與參訪團於校外會面並就未來可能之合作進行意見交換。

當晚前往策馬特考察當地永續觀光發展。



参訪團與 Professor Emmanuel Reynard 會談

9/9

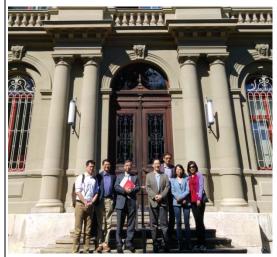
### 伯恩大學

(五) 拜訪伯恩大學地理系,就 Economic Geography、 Urban & Regional Planning 以及 Geomorphology 等議題交換意見並商討後續的具體合作方向。

參訪結束後搭機前往奧地利。



參訪團與地理系教師合影



參訪團於地理系前合影

#### Seestadt Aspern

 $(\overrightarrow{\nearrow})$ 

受限行程安排,參訪團於奧地利之停留時間為週末,無法安排正式參訪。所幸 在經張珩教授聯繫,由維也納都市發展局協助安排解說 Aspern 之規劃及發展。



利用植摘來遮蔽 直接日曬

辦公大樓頂樓架設之太陽能發電板



規劃良好之公共住宅1



規劃良好之公共住宅2

#### 維也納公共住宅

由維也納市政府工程司的協助下,由建築師帶領參訪團瞭解維也納都市發展、都市更新及公共住宅之規劃。



建築師向團隊說明公共空間規劃



兒童活動區



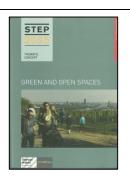
規劃良好之公共住宅3



規劃良好之公共住宅4







會談資料<sup>7</sup> By Vienna City Administration

## 9/11 維也納市中心區

(日) 由專業解說人員 Dr. Christa Veigl,介紹維也納如何從一個百年老城市,透過永續發展的角度,結合藝文活動、會展產業以及皇宮及博物館等歷史建物及文物等,保持都市發展的動能。

當日下午搭機返國。



霍夫堡皇宫



參訪團與 Dr. Christa Veigl 合影

<sup>7</sup> 考量版權,謹以封面代表。

## 五、結論與建議

### 1、學門參訪及考察結合學門召集人計畫。

本次學門出國拓展區域研究及地理學相關領域學者的國際視野並建立聯絡網絡。惟距學門前次出國參訪考察已有7年,兩次的出國參訪及考察間隔太久造成每次出擊都是獨立事件,學術交流及合作關係的建立,需長時間的互動,此類以學門發展為出發點之出國參訪及考察,應考慮與學門召集人之任期結合,以學門召集人一任3年之常態來看,學門召集人應可於任期第1年構思規劃可能之參訪主題及單位,如結合學門的熱門前瞻議題或是重點規劃方向。任期第2年時實際出國考察參訪,第3年時進行後續相關工作之推動(如雙方人員互訪,舉辦工作坊及國際研討會等),透過定期的交流,建立與國外學研單位長期的合作機制。

## 結合邀請國際人士短期訪問、國內舉辦國際研討會等補助業務, 擴大參訪考察之效益。

本次參訪總計拜會各國 10 多名相關領域之學者專家,後續將透過本部邀請 國際人士短期訪問、國內舉辦國際研討會等補助辦法,依領域及研究主題,邀請 外國學者來台,透過專題演講、參加工作坊等學術活動,與我國學者及學生交流 互動以擴大活動效益。

## 3、透過駐外科技組,共同推動重點研究。

本次參訪行程,承蒙駐英國科技組及駐德國科技組的長官及同仁提供相當多的協助。後續可透過駐外科技組,與國外學研單位保持聯絡與合作,並以學門作為平台,針對雙邊都有興趣的重點議題,如公共運輸規劃(自行車友善環境及綠色運輸等)、學研單位的研發創新能量導入產業以提高產品價值、社會住宅之實施、居住環境品質之提昇等,規劃經常性的研討會、互訪、合作計畫甚至正式出版品。

## 六、附錄

#### 1、參訪單位簡介

#### (一) 英國

英國(United Kingdom of Great Britain)的參訪,就科技部人文司的區域研究及地理學門而言,有其積極的意義。英國是世界上第一個有都市計劃學系大學、地鐵(交通運輸)、新市鎮與都市更新、以及建立許可制度與綠帶(green belt)土地使用的地區。近年英國也積極發展 sustainable mobility and communities、smart city and urban design 等議題,尤其倫敦作為歐洲的重要文化及觀光首都,其近年在觀光遊憩、文化創意產業、區域治理等成功實踐,也成為全球各城市學習與效法的典範。此外英國四大王國之一的威爾斯,其面積稍小於台灣,而政治經濟及文化相關領域所面臨的挑戰也和目前台灣極為接近,都是企圖在強勢文化或大國鄰近(對威爾斯而言,意指英格蘭及歐陸),一方面希冀抓住全球化或區域競爭的潮流,另一方面也企圖保持自己的經濟自主性及文化認同感等等。其發展經驗及相關教訓,過去在台灣較少受到關注,但卻非常有助於和台灣城市及區域發展歷程及面臨課題,從而交互比對及相互學習。透過以上針對特定議題或區域的互動,相信無論在區域研究、人文地理、自然與人文及景觀保存與再利用、及環境與資源管理等方面,皆可以對台灣及本學門有深刻的學習及反思。

英國學術領域,近幾年來逐漸在跨領域(跨校)整合,並規模化形成學院,試圖達到聚集規模整合與創新的綜效(synergy),學院間彼此既合作且獨立,已有長期的水平網絡治理的發展歷史。例如,倫敦大學本身就是最好的例子,各學院獨立運作但在高等研究及教育培訓又相互合作及資源共享(例如跨學院的research project or education programme)。Cardiff University本身也把規劃及地理專業進行整合,成為 School of Geography and Planning,進行各種跨域且專精的教學及研究(例如該 school 中有 11 以上的 master programme,涵蓋 urban design, regional and urban planning, sustainable development and transportation等課題)。

本次參訪的倫敦大學的 University College London、Oxford University 及 Cardiff University 等三所大學,在英國都是歷史悠久、教學及研究皆為頂尖的學校(在 Planning 或 Geography 皆為 Top 3 的學校)。目前和 Cardiff University 的 School of Planning and Geography 主任 Professor Paul Milbourne<sup>8</sup>已談妥訪問事宜,其亦將代為邀約 Cardiff University 的校長或副校長(協調中)。Cardiff University 目前和臺灣有學術合作之 Dr. Justin Spinney<sup>9</sup>將協助安排威爾斯政府(http://gov.wales/?lang=en)及倫敦交通局(https://tfl.gov.uk/)的參訪。University College London 本學門成員已和其規劃系(Bartlett School of Planning)的

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<sup>8</sup> 個人網頁見 http://www.cardiff.ac.uk/cplan/about-us/staff/paul-milbourne

<sup>&</sup>lt;sup>9</sup> 個人網頁見 http://www.cardiff.ac.uk/cplan/about-us/staff/justin-spinney

Professor Mike Raco<sup>10</sup>、Professor Fulong Wu<sup>11</sup>有長期的互動管道,Professor Peter Bishop 也曾應營建署之邀,來台參與公共政策討論及顧問。Oxford University 則透過 School of Geography and Environment 的 Dr. Luke Dickens<sup>12</sup> 聯繫中。英國部分,透過 Dr. Justin Spinney 及 Dr. Luke Dickens 等協助下,也在聯繫可能參訪其智慧城市研究或政策制定部門的可能性。

#### 倫敦交通局與本學門共同擬定的具體參訪說明:

The Committee of Regional Science and Geography (CRSG) is an academic committee within Taiwan's (ROC) Ministry of Science and Technology (MOST – the main governmental promotion and funding body of scientific and technological development). CRSG includes 8 sub-disciplines and relative committees, such as Urban and Regional Economic and Planning, Human Geography, Architecture and Urban Design, Transportation, Tourism and Recreation, Environmental and Resource Management. CRSG consists of leading and senior professors or researchers from different universities that represent different research subjects and geographical regions. CRSG is responsible for funding distribution, evaluation of academic performance and results, coordination between domestic and foreign scholars, and helping the MOST to manage and prioritise the scientific development of related disciplines.

The deal between London and Taipei are similarly sized global cities both seeking to address the problems associated with rapid population growth in relation to transport. They wish to gain a better understanding of current research and policy priorities in the UK, and to share Taiwanese knowledge, policies and related experiences with TfL.

There is an interest in recent policy and approaches to using urban design and public bike share systems as a way of promoting London as a more cycle-friendly and pedestrian-friendly city. The delegation is keen to know how such policy is addressing London's transportation, expansion and liveability problems. Taiwan's central and local governments are very keen to build public bike sharing systems (managed by Taiwanese manufacturing company 'GIANT') and the image of Taiwan as a 'cycling island'. Learning from TfL and sharing experiences in relation to this would be extremely useful.

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<sup>10</sup> 個人網頁見 http://www.bartlett.ucl.ac.uk/people/?school=planning&upi=MRACO63

<sup>11</sup> 個人網頁見 https://iris.ucl.ac.uk/research/personal?upi=FWUXX57

<sup>12</sup> 個人網頁見 http://www.geog.ox.ac.uk/staff/ldickens.html

In summary, the visitors wish to:

- a. Gain an outline and general understanding of the above policies/agendas (key drivers, organisational network, relationship to external stakeholders, strategic priorities, successes/ failures)
- b. Exchange ideas and lessons learnt from implementation of such agendas, informing government policy and academic research strategy
- c. Build possible connections between TfL experts and Taiwanese scholars

The visitors also plan to visit the Department of Planning, University College London, the Transport Research Unit, University of Oxford, the School of Planning and Geography, Cardiff University and the Welsh Government/ Cardiff City Council.

By way of exchange, the delegation will present to TfL on Taiwan's recent agendas and its public bike sharing system (Youbike), plans for constructing a smart city building in north Taiwan, and academic research relating to Taiwanese experiences of cycling and smart cities.

#### **Transport for London:**



Our role is to implement the Mayor's Transport Strategy. We also manage those services across the Capital for which the Mayor is responsible. Virtually everyone who visits, lives or works in London will use one of our services and every one of those journeys matters to us. We are here to keep London working and growing, and

to make life in the Capital better. But a rapidly growing population means achieving this goal is more challenging than ever.

Currently, 8.4 million people live in the Capital. This is expected to become 10 million in the 2030s. We must carry on supporting this growth if London's success is to continue. We also have to balance delivering our services with one of the biggest savings and efficiency programmes in the public sector. Our success depends on Government support through grants and borrowing, our fare payers, developing our commercial income and achieving our efficiency targets. Our Commissioner reports to our Board and leads a management team which is accountable for the daily running

of the organisation and the work of more than 25,000 employees. We gained most of our functions from our predecessor London Regional Transport, but only took over responsibility for the Underground in 2003.

#### **University College London: Bartlett School of Planning**



The Bartlett School of Planning is one of the world's leading research-led planning schools. The School possesses an international reputation as a centre of academic excellence in research, teaching, and policy and practice interaction within the broad planning arena. We possess an internationally

diverse staff and student profile and have an associated creative environment within which to study planning. Located within the heart of one of the world's greatest cities, the School's research and teaching opportunities provide a unique laboratory for knowledge creation, rich in academic, cultural and social diversity.

The School possesses a broad range of staff, with expertise in planning, geography, design, sustainability, economics, sociology, real estate, and politics, and a healthy balance of experienced and younger academics, all of which have well-established international reputations in their fields of expertise. Our research work makes contributions to both the academic physical and social sciences, and we ensure that our outputs can be interpreted for both an academic and practice audience. Members of staff are committed to working in partnership with policy and practice communities to develop innovative ideas for implementation in industry and government. We make links between theory, policy and practice, relating to planning and development in London, throughout the UK, and through a range of international collaborative links. The School's staff have a reputation for setting agendas through their regular book publications and other research outputs.

#### **University of Oxford: School of Geography and the Environment**



The School undertakes world-class interdisciplinary research, addresses societal and environmental problems, and advances knowledge within an intellectually vibrant, interdisciplinary research environment that combines natural and social sciences and has geography at its core. Geography at Oxford has a long tradition and, we believe, an exciting future in a top-rated department, where new research initiatives and key contributions to scholarship are valued. The origins of the School of Geography as a university department lie in the establishment of the Halford Mackinder Readership in Geography in 1886: the first university position in a British university. Graduate students and academic staff are working within and across the discipline. Research in key areas of environmental, human, and physical geography is supported, from studies on migration, through pensions policies, biogeography, climate change, flood risk, desertification, biological and cultural diversity, and many other areas. Research is currently organised into five distinct research clusters, which also build synergies between themes by addressing common, cross cutting themes. At present these themes include governance, measurement and mobilities.

In addition to world leading education and research in the School, we host three internationally recognised research centres and lead cross-university initiatives and collaborative networks. (1) Environmental Change Institute (ECI) is an interdisciplinary institute for research on the complex processes of global environmental change, the exploration of sustainable solutions, and the promotion of change for the better through partnership and education. (2) Smith School of Enterprise and the Environment (SSEE) is enabling business and governments to address the global energy, environment and sustainable development challenges of the 21st century. (3) Transport Studies Unit (TSU) seeks to advance innovative approaches to the study of 'transport futures' over time and space. Find out more ...

#### **University of Warwick: WMG/High Value Manufacturing Catapult**



The HVM Catapult is the catalyst for the future growth and success of manufacturing in the UK. We help accelerate new concepts to commercial reality and thereby create a sustainable high value manufacturing future for this country. The HVM Catapult combines seven world class

centres of industrial innovation into one cohesive force. We:

- Have capability which spans basic raw materials through to high integrity product assembly processes.
- Provide companies with access to world-class facilities and skills to scale-up and prove-out high value manufacturing processes
- Develop a network of leading suppliers who contribute to key UK industry supply chains
- Unite industry, government and research in a shared goal to make the UK an attractive place to invest in manufacturing

WMG centre HVM Catapult focuses on the global challenge of Low Carbon Mobility, with a whole systems approach exploiting our leading edge capabilities. Our competencies are being directed at three specific research themes:

- Lightweight Product/System Optimisation
- **Energy Storage and Management**
- Digital Validation and Verification

#### **Cardiff University: School of Geography and Planning**



Established in 1966, the School of Geography and Planning is a leading international centre for teaching and research in spatial planning and human geography. We are a multi-disciplinary

applied human geography and urban studies school.

What makes us special?

- Teaching Excellence: We consistently achieve high ratings in the National Student Survey with a 100% satisfaction rate in 2014\*
- Research Excellence: We have been consistently ranked in the top 10 of UK HEI's since the very first Research Assessment Exercise in 1992.
- Professional links and employability: Our degree programmes are accredited by professional organisation, and over 90% of our graduates are in employment or further study within six months of graduating\*\*
- Degree programmes: We currently offer three undergraduate degrees, eight taught postgraduate degree programmes, and a variety of postgraduate research opportunities
- Interdisciplinary partnerships: Our research centres include PLACE, BRASS and WISERD, all bringing together scholars from across the University

#### **Cardiff Council:**

Cardiff is the capital and largest city in Wales and the tenth largest city in the United Kingdom. The city is the country's chief commercial centre, the base for most national cultural and sporting institutions, the Welsh national media, and the seat of the National Assembly for Wales. The unitary authority area's mid-2011 population was estimated to be 346,100, while the population of the Larger Urban Zone was estimated at 861,400 in 2009. The Cardiff metropolitan area makes up over a third of the total population of Wales, with a mid-2011 population estimate of about 1,100,000 people. Cardiff is a significant tourist centre and the most popular visitor destination in Wales with 18.3 million visitors in 2010. In 2011, Cardiff was ranked sixth in the world in National Geographic's alternative tourist destinations.



The County Council of the City and County of Cardiff is the governing body for Cardiff, one of the Principal Areas of Wales. The council consists of 75 councillors, representing 29 electoral wards. The authority is properly styled as The County Council of the City and County

of Cardiff or in common use Cardiff Council.<sup>[1]</sup> No other style is sanctioned for use on Council Documents although it does occasionally appear wrongly as Cardiff County Council on documents and signage. The City & County itself is usually simply referred to as Ca

After the 2004 election, which changed the control of the Council from Labour to No Overall Control, the Liberal Democrats formed a minority administration, led by Cllr Rodney Berman. The Liberal Democrats remained the largest party following the 2008 local election, and formed an administration with Plaid Cymru. In 2012, the Labour Party took overall control of Cardiff council, and the Liberal Democrat council leader, Rodney Berman, lost his seat.

#### (二)瑞士

本次預計參訪的城市,除倫敦之外,其他如 Cardiff、Bristol 等都是重要的都市發展及再生之重要案例,而這些案例過去在本學門尚未被深度了解。雖然本次於英國訪問的期間不長,但透過和當地學者、官員、規劃師的交流訪問,足以建立日後進一步互動及合作的可能。再者,於瑞士洛桑大學(University of Lausanne)及伯恩大學(University of Bern)的學研機構推薦下,認為 Zermatt 該地區的交通系統以及地景都有其特色,也是重要的參考地點,特別是在來回的路途中,更可以參考該系統的運作。同時也由於 Zermatt 及其途經之 Visp 城市,皆係屬瑞士極具生態友善開發以及觀光遊憩的最重要個案代表之一,而這些案例也十分值得本學門做為參訪探究的有意義地點。因此,考量 Zermatt 此段行程兼具本區域研究及地理學的研究中,有關於人文地理及環境次領域、交通運輸次領域、休閒遊憩及景觀次領域等相關領域之學習觀摩之處,因而規劃並建議本研究學門可前往該地區進行體驗參訪。

#### (三) 奥地利

奧地利維也納市(Wien/Vienna)的Smart City Wien聰明城市資料(Growing Smart City)說明:Smart City Vienna代表的是智慧及創新的解決之道(stands for intelligent and innovative solution)。該城市是個計畫性非常強且能具體實踐學理的城市。相信本次若能夠親訪該市並從中獲取如何學習並應用的都市發展理論與實踐,將絕對是可以對本學門目前學研的啟發及助益十分大的。

(1) Smart City Wien – Ready for the future! (https://smartcity.wien.at/site/en/)

Smart City Vienna is a long-term initiative by the city of Vienna to improve the design, development and perception of the federal capital. Smart City Vienna looks at a cross-section of the city, covering all areas of life, work and leisure activities in equal measure, and includes everything from infrastructure, energy and mobility to all aspects of urban development.

Smart City Vienna has set itself the task of consistently and continuously modernising the city in order to reduce energy consumption and emissions significantly without having to forego any aspects of consumption or mobility. Smart City Vienna stands for the "intelligent city", intelligent and innovative solutions, responsible and sustainable use of resources.

#### (2) Framework Strategy

The Smart City Wien Framework Strategy is a long term umbrella strategy to 2050 that will establish a conducive and structural framework.

The key objective for 2050 is the best quality of life for all inhabitants of Vienna, while minimizing the consumption of resources. This will be realized through comprehensive innovation.

# (3) VIENNA 2050: Ensuring Quality of Life Through Innovation – Adopting the Smart City Wien Framework

(https://smartcity.wien.gv.at/site/en/initiative/rahmenstrategie/)

#### (4) Smart City Seestadt Aspern : A Living Laboratory: City of the future

- It is one of the biggest and most innovative urban development projects in Europe: Aspern, the urban lakeside district, is currently being built on a site covering 240 hectares at the northeast edge of Vienna. It will be a completely new district in which innovative and sustainable solutions for the smart cities of the future are developed. Planners envisage that the city will have apartments for 20,000 persons and 20,000 new jobs by 2030.
- The district of Aspern in Vienna is designed as an energy-optimized city district using appropriate technologies, products, and solutions.
- In the framework of the research company Aspern Smart City Research (ASCR), a joint venture of the city of Vienna, the utility companies Wien Energie and Wiener Netze, and Siemens, Aspern will be used as a living laboratory for technological innovations.
- The objective of the Aspern Urban Lakeside project is to realize, for the first time, a smart city model in an urban district and on a large scale by taking an integrative, multi-system approach with regard to buildings, the power grid, and ICT-based integration with the involvement of the residents. Accordingly, the R&D

activities comprise the following fields: smart building, smart grid, smart ICT, and smart citizen.

The development and planning concepts of Aspern are: life flows in, shopping close by, parks grow and flourish, school year starts, companies move in.

- Green and urban: Some 50% of the Seestadt site is set aside for parks, green spaces, roads and thoroughfares. These intelligently planned and designed public spaces allow residents to achieve a good work-life balance in green surroundings yet in the midst of a vibrant city with all the amenities of urban life.
- Fast connection and human pace: Designed as a "city of short distances", Seestadt plays a pioneering role when it comes to mobility, boasting superlative transport links to Vienna city centre and the world beyond alongside innovative Seestadt-wide mobility projects and local shops and amenities on the doorstep.
   (http://www.siemens.com/press/pool/de/events/2014/corporate/2014-07-smart-dat a-day/living-lab-aspern-e.pdf)



#### (5) 維也納城市擴張區

a. Stadtentwicklungsgebiet Nordbahnhof (北站城市發展區)

北站城市發展區,約75公頃,為內城區之大發展區之一,其中包含數個 次發展區。自1990年陸續開發,預計2025年會有一萬戶住宅,二萬個工作機會,二萬居民。



#### b. Wirtschaftsuniversität Wien Prater, WU(維也納經濟大學)

維也納經濟大學被評為在歐洲最好的商學院。用地原為世界博覽會與 展覽會場用地之一部份。校園擁有 6 個主要的建築群。採鋼模板、梯 形傾斜和圓角壁模板的特殊設計。









## c. Hauptbahnhof (維也納中央車站發展區)

維也納中央車站發展區佔地 109 公頃,為當代最大的城市車站。此一新發展區距離市中心 Stephansplatz 只有 2.5 公里,具有極佳之交通與居住品質。 其車站是奧地利最繁華的火車站之一,屋頂內部是由鋼桁架安裝, 2013 年獲頒鋼結構獎。



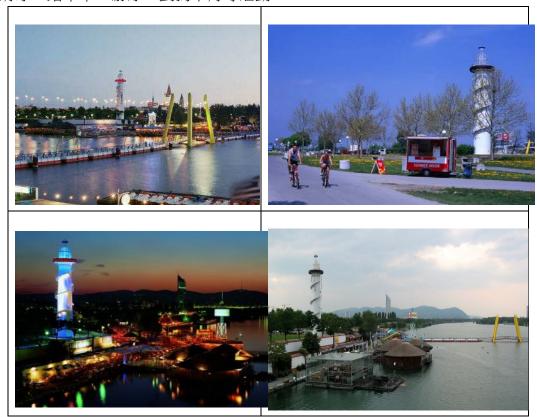






#### d. Donauinsel (多瑙河休閒島)

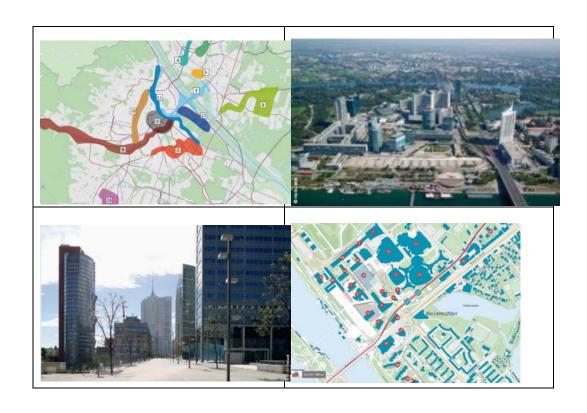
多瑙河島是多瑙河中的人工島嶼,是維也納居民熱門休閒設施。該島可進行滑冰、踏單車、游泳、劃獨木舟等活動。



#### e. Donau City

The project was implemented in three major stages within 12 years. The concept of the master plan is remarkable for its three utilisation levels: level 0 for pedestrians and cyclists; level -1, the media level, for technical infrastructure; and an underground level, termed level -2, which comprises access streets and car parks.

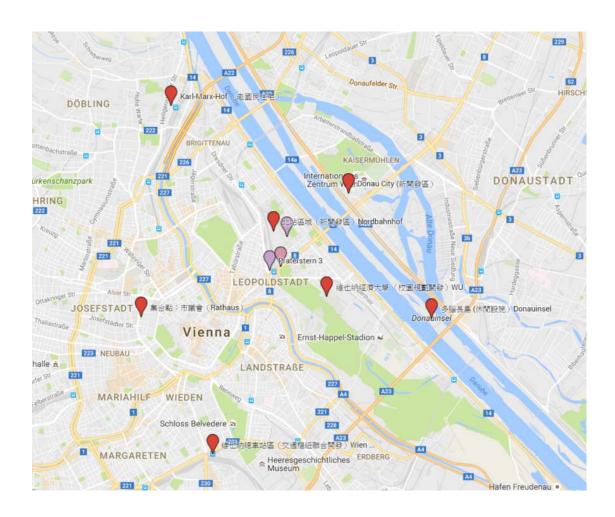
A third of the total usable floor space is reserved for offices and commercial space, mostly in the twin high-rise buildings. Residential space prevails in the buildings along Donaupark and down to the banks of the New Danube; altogether, there are some 1,500 dwellings. A Kindergarten, a primary school (by architect Hollein) and a small centre for local shops have been integrated into this part of the complex. Apart from convenient traffic links and transport connections, the main assets of Donau City include direct access to the nearby recreational areas and a beautiful view across the Danube.



#### f. Karl-Marx-Hof



Karl-Marx-Hof 是一座大型公共住宅,建於 1927 年,有 1382 戶單元,5000 住戶,每戶 30~60m²,有自用的衛生設備及自來水,以當時狀況而言極為進步。此公共住宅建蔽率 18,5%,其餘為綠地與遊戲場。建築體長達 1100 米,延伸 4 個公車站之遠,為世界上最長的單體建築。建築體內設有諸多公共設施,包括洗衣店、幼兒園、圖書館、澡堂,診所,小商店等等。此公共住宅為歷史性社會住宅典範。



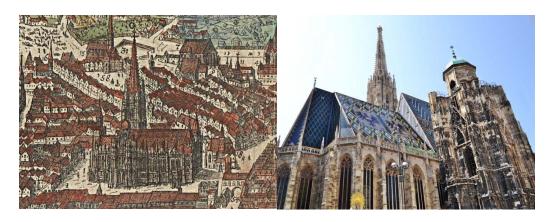
維也納城市擴張區之參訪據點

## (6) 維也納市中心區

## a. Stephansplatz (史蒂芬廣場)

The historic and for centuries almost geometric centre point of Vienna, gives opportunity to discuss urban development from Roman Vienna to post-war reconstruction and to date.





#### Haas-Haus, 3rd version (Hans Hollein, 1990)

哈斯購物中心在史蒂芬廣場區域,與古老教堂是反差的存在,教堂的輪廓清楚的倒映在帷幕牆上,形成一古今對照。



#### Weltstadthaus Wien (David Chipperfield, Peek & Cloppenburg, 2011)

此建築以博物館的概念設計,特色是「窗口之家」。窗口不只是外牆美觀,而是整體結構的一部分。



#### b. Opernring, Kärntner Ring

Area, where the great 19th century urban scheme "Ringstraße" started, introduction to this renewal and gap-filling masterpiece of urban planning on the former fortification territory.





#### c. Albertina,

Former Habsburg Palais, new entrance zone by Hans Hollein (2003)





#### d. Ringstraße (環狀大街) and Kaiserforum (帝王廣場)

The Ring Road (German: Ringstraße) is a circular ring road surrounding the downtown of Vienna, constructed in the mid-19th century after the dismantling of the city fortification walls. Its architecture is typical of the eclectic, historicist style called Ringstraßenstil (Ring Road Style) of the 1860s to 1890s. It is inscribed by UNESCO as part of Vienna's World Heritage Site. In 1857, Emperor Franz Joseph I of Austria ordered the demolition of the city walls and moats, and laid out the exact size for boulevard and new buildings, than announced a grand planning competition. Until the summer of 1858, 85 projects for the basic plan of the Ringstrasse had arrived. The Ringstraße and the planned buildings were intended to be a showcase for the grandeur and glory of the Habsburg Empire.



#### e. MuseumsQuartier

Contemporary architecture for culture and leisure (2001/02 by Ortner & Ortner, Manfred Wehdorn, et.al.) in the baroque setting of the former Court Stables.



#### f. Schwedenplatz (維也納瑞典廣場)

2005 年多瑙運河沿岸被指定為近距休閒潛力區,17 公里之沿岸有極多新的發展。

Schiffsstation Wien City: Town planning after WW Two and recent projects (Fasch und Fuchs, 2010): 遊客休憩碼頭,有餐廳、咖啡廳、休息室和陽光 甲板。

Media Tower, (Hans Hollein 2001), 媒體大樓,坐落在多瑙河辦公樓的銀行,標誌了城市中心到第二城區的入口,定位城市和空間。



Uniqa Tower, (Heinz Neumann + Partner, 2004): Uniqa 集團總部大樓與多瑙河

## 和環城大道緊鄰,為視覺焦點的標誌性建築







K47 (Henke und Schreieck,2003):K47 為一棟功能齊全,靈活實用和現代 化的商業辦公建築。



Sofitel & Stilwerk, (Jean Nouvel, 2010) :五星級旅館與設計購物中心



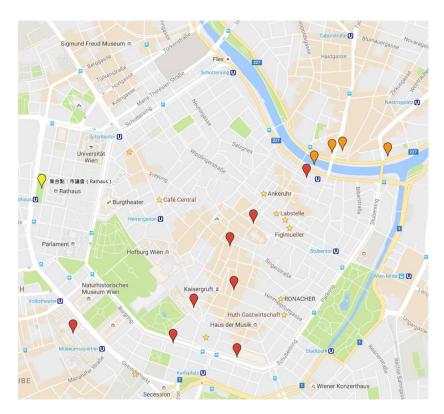












維也納城市市中心區之參訪據點

## 2、交流人員簡介



#### **Gareth Sumner (TfL)**

**Title:** Principal urban design advisor.

Gareth is an urban designer with over eight years' urban design experience in public and private sector consultancy and a background in engineering, product design and innovation.

His recent projects include the Garden Bridge,
Bank station capacity upgrade, Elephant and Castle public realm and TfL station public realm design guidance. Before joining TfL, Gareth worked for IBI Taylor Young on projects including town centre regeneration and sustainable urban extensions.

He has an MEng in Manufacturing from Cambridge and a Master's in Urban Design from Oxford Brookes. Gareth has recently been awarded the Design Council Scholarship to study the Master's in Innovation, Creativity and Leadership at City University London.



#### George Weeks (TfL)

**Title:** Urban designer.

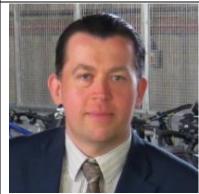
George is an urban designer and chartered town planner with a lifelong interest in creating successful urban environments. Based in the Urban Design team since 2011, George has developed the team's expertise in valuing the monetary benefits of high-quality public space and was co-author of the Nine Elms cycling strategy.

George has a BA in social sciences from Durham, an MSc in City Planning and Real Estate from Glasgow and a Master's in Sustainable Urbanism from the University of Wales. In 2009 he won the RTPI Award for Outstanding Achievement in Planning Education. He is a member of the RTPI London Regional Management Board, a Young Urbanist and a member of the Urban Design Group.



#### **Bruce McVean (TfL)**

**Title:** Principal Strategy Planner at Transport for London.



#### Brian Deegan (TfL)

**Title:** Principal Technical Specialist at Transport for London.



#### **David Eddington (TfL)**

**Title:** Operations Manager London Cycle Hire Scheme.

David has worked on the Cycle Hire scheme for the last 7 years. From its inception, design and procurement into live operational running I have gained a wealth of experience of running the Western worlds second biggest Cycle hire scheme. The scheme has rapidly expanded from its initial fleet of 6000 cycles to the current 12,000 and seen 3 geographical expansion.



#### Nathan Ashley (TfL)

**Title:** Policy Advisor at Transport for London (TfL Smart City Strategy).



#### **Prof Peter Bishop (UCL)**

Peter worked at a senior level in London government for 25 years before joining UCL. He was appointed, in 2006, to head up Mayor Ken Livingstone's new architectural and design unit, 'Design for London'. The remit from the Mayor was "to think about London, what makes London unique and to devise strategies and projects to make it better". Design for London operated as the focus for design leadership for London government, and built up an international profile, seen by many cities as a unique experiment in urban planning and design.

In 2009 Peter combined my role at Design for London with being deputy CEO at the London Development Agency. This increased the scope of the design team and integrated master planning with environmental programmes and land management and development. Out of this work emerged new strategies for the regeneration of east London including the Olympic Legacy master plans, the plans for The Royal Docks, London's green Enterprise District and The London Cable Car.I took up a directorship at Allies and Morrison-Urban Practitioners in 2011, and now work on a wide range of urban strategies and design studies in London, across England and overseas. He also is retained as a planning and

design consultant by the law firm Berwin Leighton Paisner. In 2011 I was commissioned by the British Government and The Design Council to examine and report on how architectural and urban design could be embedded in government policy thinking and local practice. *The Bishop Review* was published in October 2011 and was considered as part of the Government reform of the UK planning system. In May 2012 I was appointed Professor of Urban Design at The Bartlett School of Architecture at UCL.



#### **Dr. Tim Schwanen (Oxford)**

Tim joined the Transport Studies Unit (TSU) in March 2009 and became Director in September 2015. He has been jointly appointed by TSU and the School of Geography since November 2012. Before coming to Oxford he worked as a lecturer in urban geography at Utrecht University, the Netherlands. At that university he also completed his PhD thesis (2003, *cum laude*) and MSc thesis (1999, *cum laude*). Tim is one of the Deputy Directors of the RCUK funded Research Centre on Innovation and Energy Demand (2013-2018) in which the University of Sussex collaborates with the Universities of Manchester and Oxford.



#### **Dr. James Palmer (Oxford)**

James joined the School of Geography and the Environment in January 2015. He has a BA (Hons), an MPhil, and a PhD, all from the University of Cambridge. James' doctoral research examined the roles of science, evidence and discourse in EU biofuels policy making, focusing in particular on debates about biofuels' land-use change impacts. Prior to becoming the Course

Director of the MSc in Nature, Society and Environmental Governance, James taught undergraduate geographers at Oxford for two and a half years, as a tutorial fellow at Keble College and a stipendiary lecturer at Brasenose College. He was also a research fellow in the Transport Studies Unit and an associate fellow of the Institute for Science, Innovation and Society.



#### **Dr.** Luke Dickens (Oxford)

Luke is a social and cultural geographer interests in the politics of urban experience and spatial practice. In particular, his research seeks to develop critical understandings of the relationships between the performance of difference and identity, and the material conditions and contingencies driving unequal processes of urban change. He is especially interested in these relationships as they are experienced by children and young people. Luke's work draws on relational and affective epistemologies, and centres on questions concerning the ways forms of voice, visibility, belonging and recognition might take place. His research and teaching practice seeks to foster grassroots community actions, participatory approaches and informal pedagogies.



#### Dr. Nicholas Mallinson (Warwick WMG)

Nicholas is a chartered electrical engineer and member of the chartered institute of marketing.

Joined WMG in 2005 as Research Manager for the Warwick Innovative Manufacturing Research Centre (WIMRC), having previously been Vice-President for Sales & Marketing at Dynex Semiconductor Limited. In January 2012 he was appointed Programme Manager for the newly

established WMG centre High Value
Manufacturing Catapult. This centre is focussed on
collaborative research with industrial partners in
the area of low carbon mobility, in particular the
light-weighting of vehicles and improved energy
storage and management solutions for electric and
hybrid vehicles.



#### Dr. Rohit Bhagat (Warwick WMG)

Rohit has a background that includes materials/metallurgy/manufacturing and the use of electrochemical techniques (such as voltammetry and impedance spectroscopy) to study the electrochemical production of titanium alloys, from titanium oxide, via the FFC Cambridge Process (a molten salt process operating at 900C). This work included manufacturing apparatus and developing new test methodologies to assess the electrochemical reduction processes taking place. This background is ideally suited to other molten salt electrolysis and form the basis of the Groups research in molten salt metal recovery and molten salt batteries.



#### **Professor Paul Milbourne (Cardiff University)**

**Title:** Head of the School of Geography and Planning. Director of Cardiff University's Centre for Research on Environment, Society and Space and the Wales Rural Observatory.



#### **Dr. Justin Spinney** (Cardiff University)

**Title:** Urban Cultural Geographer and Economic Sociologist.



#### Dr. Li Yu (Cardiff University)

**Title:** A Senior Lecturer and Course Director for MSc Eco-Cities.



#### **Cllr Phil Bale (Cardiff Council)**

Title: Council Leader (市長)

Party: Labour Ward: Llanishen

As City Council Leader, he also has lead responsibility for major regeneration projects in the city, such as Central Square a new 750,000 square foot, office retail and hotel development, which will include a new Head Quarters for BBC Wales and the construction of a world class integrated transport hub. Other projects include the development of a new masterplan of the Cardiff Bay waterfront and the international Sports Village complex.



## **Cllr Ramesh Patel (Cardiff Council)**

Title: Cabinet Member (市內閣閣員) Transport,

Planning & Sustainability

Party: Labour Ward: Canton



## Mr. Andrew Gregory

Title: Director of City Operations, Cardiff Council



#### Ms. Natalie Grohmann

Title: Transport Policy Team Leader at Welsh

Government