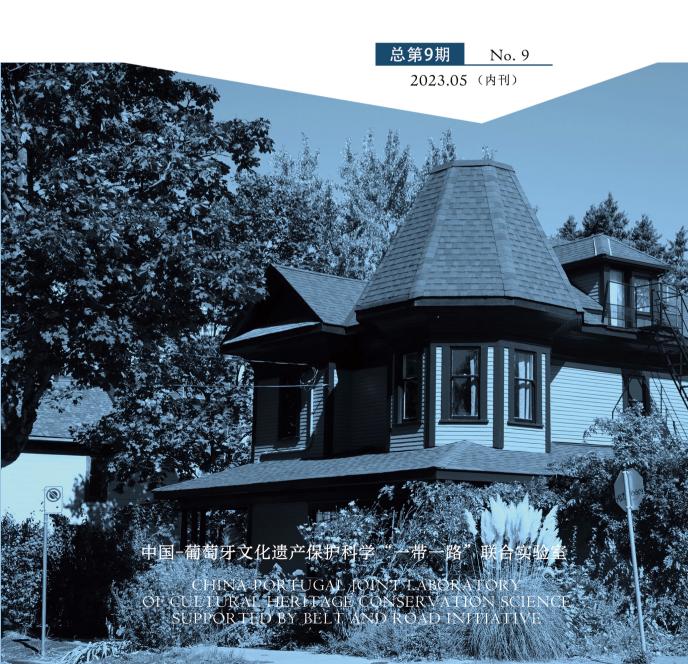
# 遗产研究国际动态

# HERITAGE SPECTATOR



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# 前沿研究 Research Fronts

#### 管窥加拿大建筑遗产保护

#### A Glimpse into Architectural Heritage Conservation in Canada

潘一婷 i PAN Yitingi

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#### 1 加拿大建筑遗产资源特征

如果说欧洲因得益于悠久历史的恩赐, 今 天依然以古代的、精英的、物质性的遗产占主 导的话,那当我们把视线转到像温哥华这样在 19世纪末才因欧洲殖民和全球移民建立起来的 加拿大近代城市, 就会更切实地感受到遗产在 21世纪的一些新趋势。 正如到美国历史学家 戴维·洛文塔尔所提到"近世的"、"民粹的"、 和"非物质性"遗产 ——在这里发扬得多么淋 漓精致,并值得我们关注。

#### (1) 近世特征

加拿大建筑遗产的近世特征, 典型地体现 在于为当地人们津津乐道、数量庞大的19世纪 末至20世纪初期的遗产住宅。"遗产住宅"是 指入列《温哥华遗产名录》的住宅,"特色住 宅"是指1940年之前建造、被认为具有遗产 特色价值, 但未列入《温哥华遗产名录》的住 宅。这些遗产和特色住宅今天大部分都延续历 史上的居住功能在使用,通过适应性改造以容 纳现代生活。自2003年温哥华遗产基金会首次 组织了"遗产住宅游线"以来,这类导览活动 大受当地居民欢迎,至今已经举办了20年了。 温哥华遗产基金会 2005 年以温哥华四个历史住 宅区为样本做过一项研究<sup>2</sup>,发现遗产建筑的房

#### 1 Characteristics of Canadian **Architectural Heritage Resources**

If it is reasonable to say that ancient, elite, and tangible heritage continues to dominate in Europe due to its centurieslong history, then when we shift our focus to modern Canadian cities like Vancouver, established only in the late 19th century through European colonization and subsequent global immigration, we can witness some of the new trends of heritage in the 21st century. As observed by American historian David Lowenthal, these trends include "recent", "populist", and "intangible" heritage, which are particularly well-represented here and deserving of our appreciation.

#### (1) Recent

One of the typical features of Canadian architectural heritage is the large number of heritage homes dating back to the late 19th and early 20th centuries that are highly cherished by local residents. "Heritage houses" refer to those listed in the Vancouver Heritage Register, while "character houses" refer to homes built before 1940 that are considered to have heritage value but are not listed in the Vancouver Heritage Register. Most of these heritage and character houses are still used for residential purposes today, with adaptations made to accommodate modern living. Since the Vancouver Heritage

产价值增长率明显比非遗产住宅高, 所以这 些建筑物的修复也可能是一项很好的投资。



图 1. 温哥华 "遗产建筑"的铭牌,位于肯普之家室外,建 于 1902 年 (作者摄, 2022)

Fig.1. Plaque of "Heritage Building" by the City of Vancouver, located outside of Kemp Houses, built in 1902 (Photo taken by the author, 2022)

#### (2) 民粹主义

加拿大遗产的民粹主义,体现在当地对建 筑遗产保护和展示中,对工人阶层、包括早期 移民家庭的特别关注。这里各式各样的民俗博 物馆里,展示早期开拓者们过去的日常工作、 生活习惯、饮食传统、休闲方式、乃至服装玩 具等。

以坐落在大温哥华新西斯敏的欧文之家为 例,该建筑由欧文船长一家建于1865年,是大 温哥华地区历史最悠久、也是最完整的遗产住 宅之一。它目前的室内外格局和装饰基本保持 着历史上的风貌,作为地方遗产中心用于举办 文化活动,并接受参观。欧文之家当然无法与 意大利、英国、中国那些几百年的古老住宅相 比,然而通过它来了解19世纪晚期的加拿大殖 民者如何生活依然是非常有趣的体验:由于始 建时电灯的缺乏和对更高照度的需要, 欧文之 家的室内墙壁最早是粉刷成浅色来模仿石材表

Foundation first organized the Heritage House Tour in 2003, these types of guided tours have been highly popular among local residents and have been held for 20 years. In 2005, the Vancouver Heritage Foundation conducted a study using four historic residential areas in Vancouver as samples and found that the property value appreciation rate of heritage homes was significantly higher than that of nonheritage homes, making the restoration of these buildings a potentially good investment.

#### (2) Populist

Populism in Canadian heritage is reflected in the local attention paid to the working class, including early immigrant families, in the conservation and exhibition of architectural heritage. In various folk museums here, the daily work, living habits, food traditions, leisure activities, and even clothing and toys of early pioneers are showcased.

Let's take Irving House, located in New Westminster, which was once the capital of colonial British Columbia, as an example. Built by Captain Irving's family in 1865, this building is one of the oldest intact houses in Metro Vancouver. Its current interior and exterior layout and decorations are essentially preserved in their historical style, serving as a local heritage center for cultural activities and visits. Undoubtedly, Irving House cannot be compared to those ancient houses in Italy, England, or China. However, it is still very interesting to learn what life was like in the Canadian colonies in the late 19th century.Due to the lack of electric lights at the time of its construction and the desire for higher levels of illumination, the interior walls of Irving House were originally plastered in light colors to imitate stones, with black lines drawn on the walls to imitate the stone joints. The wallpaper that decorates the interior today was actually installed around 1890. In the 1860s, furniture in the Greater Vancouver area commonly had wheels, including bed legs, wardrobes, tables, and the front legs of chairs. Tea was very expensive at the time, so the tea case in the dining room was locked with a key. The so-called "vacuum cleaner" at the

<sup>1</sup> Lowenthal, David. "The Heritage Crusade and Its Contradictions." In Giving Preservation a History: Histories of Historic Preservation in the United States, edited by Max Page and Randall Mason, 12-29. New York: Routledge, 2004.

<sup>2</sup> https://www.vancouverheritagefoundation.org/wp-content/uploads/2021/03/Research-Project-Comparing-Assessed-Value-of-Heritage-and-Non-Heritage-Homes-in-Vancouver.pdf

面,墙上绘有黑色的线条,以模仿石材拼贴的 接缝。今天室内装饰的华丽墙纸, 其实是约 1890年左右才铺设的。在1860年代,大温哥 华地区的家具当时普遍是安装了轮子的,包括 床脚、衣橱、桌子、以及椅子的前腿。当时的 茶叶非常昂贵, 因此餐厅里存放茶叶的盒子是 上锁的。当时所谓的"吸尘器"实际上一个手 动抽气筒。当时的厨房里会放置一个专门用于 加工橙子的工具,因为"橙子是奢侈品,只能 在圣诞节吃到"。今天,我们觉得理所当然的 橙子——它们今天很容易从西班牙、美国加州 等更温暖的地方进口,在历史上却是非常稀缺 的。欧文之家二楼的门框上, 依然保留着一个 子弹孔,这是在一次入室抢劫中留下的——可 见早期殖民地的生活并不太平。

加拿大遗产的民粹主义,还体现在族谱学 研究的盛行,这里各地都有大量业余爱好者加 入到家族谱系的研究中。





图 2. 始建于 1865 年的欧文之家,现为新西斯敏市政府所有并 作地方遗产中心使用(作者摄,2022)

Fig.2. The Ivring House established in 1865, which is now owned by the City of New Westminster and used as a local heritage center (Photo taken by the author, 2022)

time was essentially a manually operated air pump. In the kitchen, there was a tool specifically designed for processing oranges because "oranges were luxury goods and only for Christmas". Today, we take oranges for granted; they are easily imported from warmer places such as Spain and California, but in history, they were very precious. A bullet hole remains on the door frame of the second floor of Irving House, left behind during a robbery. This shows that life in early colonial settlements was not peaceful.

Populism in Canadian heritage is also reflected in the prevalence of genealogical research, where many amateur enthusiasts participate in the study of family lineage throughout the country.

#### (3) Intangible

The intangible aspect of Canadian heritage is reflected in the emphasis placed by local heritage conservationists on different languages, oral history, traditional skills, artistic creation, and heritage transmission. Let's take Canadian Indigenous heritage as an example:

"It is difficult to find a direct translation for 'cultural heritage' in local Indigenous languages; the closest concept is related to 'sacredness' or 'knowing oneself'." - This statement, which has been repeatedly cited by many official Canadian institutions, illustrates the close relationship between traditional Indigenous architectural heritage in Canada and the unique beliefs and intangible cultural heritage of Indigenous peoples.

Canadian expert in Indigenous Archaeology, George Nicholas (2020), points out that "Indigenous cultural heritage is not limited to the past. For some Indigenous peoples, there is no division between the natural and supernatural realms, and the concepts of 'past' and 'present' can be folded together, which means that ancestors and other powers are part of this existence".

The characteristics of Vancouver's architectural heritage resources and phenomena are recent, populist, and intangible, which contrast sharply with Europe and China. These features constitute the first impression when exploring Canadian heritage.

#### (3) 非物质件

加拿大遗产的非物质性,体现在当地遗产 保护工作者对不同语言,口述史,传统技艺, 艺术性创造与传承的重视。以加拿大原住民遗 产为例:

"在当地土著语言中,很难找到对应'文 化遗产'的直接翻译,最接近的概念是与'神 圣'有关,或与'认识自己'有关。"。—— 这段被加拿大许多官方机构反复引用的表述, 说明了加拿大传统土著建筑遗产,与土著人独 特的信仰和非物质文化遗产的概念息息相关。 加拿大土著考古学家乔治•尼古拉斯(2020) 指出: "土著文化遗产不仅限于'过去',对 于一些土著人来说,自然和超自然领域之间没 有区别,'过去'和'现在'的概念可以折叠 在一起,这意味着先祖和其他力量是这个存在 的一部分。"4

However, this is just the tip of the iceberg. This article will then delve deeper into various aspects of architectural heritage conservation in Vancouver, such as the demands of diverse cultural communities, heritage conservation organizations, and heritage legislation. The aim is to present a more in-depth understanding of architectural heritage conservation in Vancouver.

#### 2 Multicultural Communities's Demands and Heritage Conservation in Canada

As the cause of heritage conservation becomes increasingly popular worldwide, the corresponding enthusiasm in Canada also has its unique reasons. In the field of Canadian cultural heritage, the focus is on people and communities, presenting unique experiences and demands of various communities.





图 3. UBC 校园内的原住民图腾和第一民族长屋局部(照片由作者于 2022 年拍摄) Fig. 3. An Indigenous totem and part of the First Nations Longhouse Building on the UBC campus (Photo taken by the author, 2022)

近世特征、民粹主义、非物质性, 上述这 些与欧洲、中国形成鲜明对比的加拿大建筑遗 产资源特点和现象,构成了初探加拿大遗产的 第一印象。但这只是冰山一角,本文接下来将 从加拿大多元社区保护诉求、遗产保护机构和 遗产保护立法展开,以呈现温哥华建筑遗产保 护的更有深度的不同面向。

#### 2 加拿大多元社区诉求与遗产保护

随着全球范围内遗产保护事业越来越深入

#### (1) European Colonial Communities

Canadian immigrant communities have historically been dominated by "Anglophones" and "Francophones", referring mainly to Canadians of British or French roots. The terms "Anglophone" or "Francophone" cultural heritage are commonly used in Canada. This is primarily because, in Canada's early history, both Britain and France colonized the region, and English and French subsequently became the two main official

<sup>3</sup> Report on Parks Canada's Indigenous Engagement Sessions. Indigenous Heritage Circule, 2019-06-26, p.4.

<sup>4</sup> David M. Schaepe, George Nicholas, Kierstin Dolata. Recommendations for Decolonizing British Columbia's Heritage-Related Processes and Legislation [M]. First Peoples' Cultural Council, 2020-12, p. 11.

人心, 加拿大遗产保护热情的高涨也有自己独 特的原因。加拿大文化遗产领域围绕人和社区 展开,呈现不同的社区的独特体验和诉求。

#### (1) 欧洲殖民社区

加拿大移民社区在历史上以"英语为母语的人" 和"法语为母语的人"—— 主要指英裔和法 裔加拿大人为社会主流。在加拿大能听到"英 语、法语背景"文化遗产的说法。这主要是因 为在加拿大早期历史中, 英国和法国都曾对该 地区进行殖民统治, 而英语和法语也因此成为 今天加拿大两种主要官方语言。早期英国移民 怀着乡愁, 无论去到哪里, 都把自己的传统和 格调带到目的地国,并世代相传。而法裔加拿 大人因在历史上曾受到歧视和不公, 担忧自己 遭受当地英语文化的威胁和同化, 使得他们更 强烈地渴望保护法语和属于自己的文化遗产。 值得注意的是,今天的欧洲移民社区也逐渐增 加了对历史上长期受到忽视的欧洲少数移民社 区——北欧、南欧和东欧文化遗产的关切。

#### (2) 原住民社区

原住民社区在加拿大历史上遭受了英法殖 民统治者难以言说的不公正待遇,包括种族灭 绝和文化清洗, 使得他们深切体会到遗产的脆 弱和濒临灭绝的危机。对原住民而言, 土著遗 产有两方面危机,一方面是遗产毁灭的危机。 因此拯救遗产——让这些历史上被忽视的遗产, 重新得到认识,并纳入加拿大遗产保护体系, 从而免遭毁灭,对他们而言至关重要。另一方 面是遗产丧失的危机。其中, 土著遗产被另一 种文化(如英法殖民文化)作为他们殖民史的 序曲来讲述、曲解, 也是遗产所有权丧失的一 种表现。因此,"遗产归还"(repatriation)—— 不仅仅是归还土著文物,也包括争取遗产定义 权、保护权交回给原住民社区,成为他们保护 自己遗产的重要路径。

#### (3) 少数族裔移民社区

加拿大的少数族裔移民社区在历史上经历 了种族歧视的不公正对待。客居异乡的逆境和 伤痛加强了他们对遗产的珍视, 并使遗产成为 不同少数民族社区凝聚力的源泉。在这样的背 景下, 在加拿大的中华文化遗产、锡克族文化 遗产、日本文化遗产的研究和实践蓬勃发展。

以中华文化遗产为例,一个值得思考的问 题是,加拿大的中华文化遗产与中国本土的中

languages in Canada today. Early British immigrants carried their traditions and tastes with them wherever they went, passing them down through generations with nostalgia. French Canadians, on the other hand, due to historical discrimination and injustice, were concerned about the threat of assimilation into the local English culture, leading to their stronger desire to preserve their own cultural heritage and the French language. It is worth noting that European immigrant communities today are also increasingly concerned about the longneglected European minority immigrant communities - the cultural heritage of Nordic, Southern, and Eastern Europe.

#### (2) Indigenous Communities

Indigenous communities in Canada have historically suffered unspeakable injustices under English and French colonial rulers, including genocide and cultural cleansing, which has made them acutely aware of the fragility and imminent extinction of their heritage. For Indigenous peoples, there are two crises surrounding their heritage. One is the crisis of heritage destruction. Therefore, saving their heritage - making these historically neglected legacies known and incorporating them into Canada's heritage conservation system to avoid their destruction - is essential. The other is the crisis of heritage loss. Indigenous heritage was often interpreted and distorted by another culture (such as English or French colonial culture) as a prelude to their colonial history, which is also a manifestation of the loss of heritage ownership. Therefore, "repatriation" of heritage - not only the return of Indigenous artifacts but also the pursuit of the right to define and protect heritage to be returned to Indigenous communities - is an important path for protecting their own heritage.

#### (3) Ethnic Minority Immigrant Communities

Canadian ethnic minority immigrant communities have historically experienced unfair treatment and discrimination. The adversity and pain of living in a foreign land have strengthened their appreciation for heritage, making it a source of cohesion for different ethnic minority communities. Against this background, research and practice on Chinese cultural heritage, Sikh cultural heritage, and Japanese cultural heritage are thriving in Canada.

华文化遗产有何不同? 美国历史学家戴维·洛 文塔尔指出:"遗产的过去不一定非得亲身体 验。"5一个土生土长的华裔加拿大人,可能 从未去过中国, 但中华文化传统依然有可能通 过当地华裔社区和所在家庭传承和延续。和在 中国本土长大的我们一样, 他们也有自己的途 径和方式认知、亲历和传承着中华文化遗产的 某一部分。但在海外的他们,逐渐形成了一套 新的、独特的关于铭记、纪念、忘却和禁忌的 新的遗产认知体系。关于禁忌的一个例子是, 一些历史上附加了种族主义的含义特定词汇, 如 "oreintal" ("东方的")一词,在加拿 大的文化和社会背景下被视为含有贬义而避免 使用, 因为它曾经被用来描述亚洲人和亚洲文 化。但同样的词汇在亚洲本土甚至欧洲, 却没 有同样的敏感性。

综上所述,加拿大不同文化社区遗产保护 意识觉醒的背后,虽然各有各的历史因由,但 是相通之处在于:遗产的脆弱和危机。今天加 拿大遗产保护问题围绕着多元文化的国家身份。 多元文化主义的精神, 是承认各文化社区先驱 对加拿大国家建设的贡献。不同文化社区之间 的历史冲突与和解历程,也被认识为遗产的重 要组成部分,帮助加拿大反思历史的不公正, 并庆祝跨文化的交流。加拿大当代社会建构面 对这一重要历史教训的解决方案是:"去殖民 化"和"文化和解"。有了国家政策背书,各 文化遗产保护热情的迅速发展。这种多元文化 视角的遗产保护策略对加拿大好处很多:加拿 大文化的多样性不仅弥补了加拿大作为近代移 民国家历史遗产短绌的不足, 也帮助这个国家 在世界各国悠久的历史文化竞争中找到自己独 特的文化定位,大大增强了对新移民的吸引力。

#### 3 加拿大政体与遗产保护机构

加拿大属于联邦制国家,这种政体强调联 邦政府与省政府分权(如体现在分开税收、分 别立法上),因此也对遗产保护部门产生了重 要影响。相比中国或意大利等非联邦制国家, 加拿大的省级政府在遗产保护领域拥有更多权 力和责任。联邦政府和省政府关系并非简单自 上而下, 而是为了共同责任进行协调和协作。 联邦制度对加拿大遗产保护管理的挑战在于,

Taking Chinese cultural heritage as an example, an intriguing question is what distinguishes Canadian Chinese cultural heritage from Chinese cultural heritage on the mainland American historian David Lowenthal pointed out, "The past of heritage does not necessarily have to be experienced in person." A Canadian-born Chinese, for example, may have never been to China, but Chinese cultural traditions can still be passed down and continued through local Chinese communities and their families. Like us who grew up in mainland China, they also have their own ways and means of understanding, experiencing, and inheriting a part of Chinese cultural heritage. However, overseas they have gradually developed a new and unique system of heritage cognition about remembering, commemorating, forgetting, and taboo. An example of taboo is the use of certain words that historically had racist connotations, such as "oriental", which is avoided in Canada's cultural and social context because it was used to describe Asians and Asian culture. However, the same words may not carry the same sensitivity in Asia or even in Europe.

In summary, behind the awakening of heritage conservation awareness in different cultural communities in Canada, although each has its own historical reasons, the common ground is the vulnerability of heritage at risk. Today, the heritage conservation issue in Canada revolves around the national identity of multiculturalism. The spirit of multiculturalism recognizes the contributions of various cultural communities to the construction of Canada. The historical conflicts and reconciliation processes between these communities are also an integral part of Canada's legacy, allowing the country to reflect on past injustices and celebrate cross-cultural exchanges. The solution for contemporary Canadian society facing this important historical lesson is "decolonization" and "cultural reconciliation". With the endorsement of national policies, the enthusiasm for heritage conservation in different cultural communities has rapidly developed. This heritage conservation strategy from a multicultural perspective has many benefits for Canada: the diversity of Canadian cultures not only compensates

<sup>5</sup> Lowenthal, David. "The Heritage Crusade and Its Contradictions", p.16.

不同省政府在遗产保护方面可能有不同优先事项或资源,进而可能导致遗产地的投资或维护不均衡。此外,责任分工可能导致遗产保护工作的分散和缺乏协调。

加拿大秉持的"多元文化主义"国策,也 对加拿大遗产保护机构组成有显著影响。加拿 大原住民的遗产在历史上长期被漠视,因此当 下的加拿大各级遗产机构都特别重视原住民遗 for the shortcomings of its historical heritage as a modern immigration country, but also helps this country find its unique cultural positioning in the competition of long-standing historical cultures around the world, greatly enhancing its attractiveness to new immigrants.

### 3 Canada's Political System and Heritage Conservation Oraganizations



图 4. 加拿大不同级别的遗产保护机构(自绘) Fig.4. Different levels of heritage conservation organizations in Canada (drawn by author)

产的保护。国家级机构"土著遗产圈"(原住民自发成立)、省级机构"第一民族文化委员会"(卑诗省政府设立和资助的公共部门组织)都是典型案例。此外,各市级遗产协会在其社区基层保护工作中,也越来越关注原住民遗产。

#### 4 加拿大遗产保护立法

#### (1) 国家层面

在加拿大影响遗产建筑的大多数具体法规 其实是在市政府层面制定的,联邦政府设立的 遗产法规较少。。在国家层级,联邦法律《加 拿大遗产法》授权联邦政府成立"加拿大遗产 部"(DCH),并规定了政府在保护和促进加拿 大文化、遗产和身份认同方面的职权。

加拿大遗产保护行业准则是《加拿大历史 场所保护标准和指南》(首版 2003,第二版 2010)<sup>7</sup>,地位类似于中国的《中国文物古迹

Canada is a federal state, which features the decentralization of power between the federal government and provincial governments (as reflected in areas such as taxation and legislation), and therefore has had a significant impact on the sector of heritage conservation. Compared to non-federal countries such as China or Itay, provincial governments in Canada have more power and responsibility in the field of heritage conservation. The relationship between the federal government and the provincial government is not simply top-down, but is coordinated and collaborative for shared responsibility. The challenge that federalism poses to heritage conservation in Canada is that different provincial governments may have different priorities or resources for heritage preservation, which may lead to uneven investment or maintenance of heritage sites. In addition, the division of responsibilities may lead to the fragmentation and lack of 保护准则》。"历史场所",有点类似于中国"文物保护单位",在加拿大是一个泛指建成遗产保护对象的专用术语,包含多种建成遗产类型。根据国家级遗产机构"加拿大历史场所" 的定义,"历史场所是在加拿大范围内,由恰当官方机构在其管辖区内,正式认定为具有文化遗产价值的结构、建筑、建筑群、区域、景观、考古遗址或其他场所。" \*

针对不同建成遗产类型,国家层级的保护法案有:《历史遗址和古迹法》°、《遗产灯塔保护法》和《遗产火车站保护法》。在国家法的框架下,一共有四类建成遗产列入"加拿大历史场所名录",它们分别是:加拿大国家历史遗址(NHS)、根据2023年数据:共1004个分布在加拿大各地,其中171个由加拿大公园局管理)、遗产火车站(HRS)、遗产灯塔(HL)、以及联邦遗产建筑(FHB)。

虽然在理论方面,加拿大有不少针对非物质遗产的深入探讨(尤其是在土著遗产方面),但在加拿大当前的遗产法律和政策仍然侧重有形遗产,而截至2023年,加拿大尚未加入《联合国教科文组织非物质文化遗产公约》"。然而,在国家层面,加拿大依然有两类非物质文化遗产可由"加拿大历史遗址与估计委员会"推荐列入同时涵盖了有形和无形文化遗产的"联邦遗产名录"中,它们分别是:国家历史人物(NHP)、国家历史事件(NHE)。联邦遗产名录目前共有3600多个登录对象"。

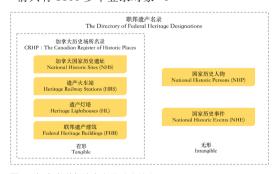


图 5. 加拿大联邦遗产名录(自绘) Fig.5. The Directory of Federal Heritage Designations (drawn by author)

coordination in heritage preservation work.

The "multiculturalism" policy upheld by Canada also has a significant impact on the composition of Canadian heritage protection institutions. The heritage of Canada's Indigenous peoples has long been neglected in history, so all levels of heritage institutions in Canada now place special emphasis on the protection of Indigenous heritage. The national-level institution "Indigenous Heritage Circle" (formed spontaneously by Indigenous peoples) and the provincial-level institution "First Nations Cultural Council" (a publicly-funded organization established by the government of British Columbia) are typical examples. In addition, various municipal heritage associations are increasingly focusing on the protection of Indigenous heritage in their communitylevel preservation work.

### 4 Heritage Conservation Legislation in Canada

#### (1) National Level

In Canada, most of the specific regulations that influence heritage buildings are actually established at the municipal government level, with fewer heritage regulations established by the federal government. At the national level, the "Canadian Heritage Act," authorizes the federal government to establish the "Department of Canadian Heritage" (DCH) and specifies the government's authority to protect and promote Canadian culture, heritage, and identity.

The authoritative standards for Canadian heritage conservation are the "Standards and Guidelines for the Conservation of Historic Places in Canada" (first edition in 2003, second edition in 2010), which hold a similar status as China's Principles for the Conservation of Heritage Sites in China. "Historic Places", similar to China's "Wenwu baohu danwei (literally: cultural relic protection units)," is a reserved term in Canada that refers to a variety of built heritage sites and includes various types of built heritage. According

<sup>6</sup> Vancouver Heritage Foundation: https://www.vancouverheritagefoundation.org/resources/policies-and-bylaws/heritage-legislation-an-overview/

<sup>7</sup> The Standards and Guidelines for the Conservation of Historic Places in Canada (2010): https://www.historicplaces.ca/en/pages/standards-normes.aspx

<sup>8</sup> Canada's Heritage Places: https://www.historicplaces.ca/en/pages/about-apropos.aspx

<sup>9</sup> Historic Sites and Monuments Act: https://laws-lois.justice.gc.ca/eng/acts/H-4/page-1.html#h-2

<sup>10</sup> Yiting Pan. "Decolonization and Indigenization: Exploring the Paths of Indigenous Architectural Heritage Conservation in Canada 去殖民化与土著化:加拿大土著建筑遗产保护的探索之路",China Ancient City, 2022(6): Vol.36, No.6, pp.27-35.

<sup>11</sup> https://parks.canada.ca/culture/dfhd.aspx

#### (2) 省级层面

在省级层面,卑诗省最重要的是《卑诗省遗产保护法》<sup>12</sup>,该法案将 1846 年设为"考古"(1846 年以前)与"遗产"(1846 年之后)时间分界线。其中关于考古的部分,依法创建了"卑诗省考古遗址名录",截止 2023 年已收录 60000 多处,"包括村庄遗迹和其他居住地,以及渔堰和树木改良等资源采运活动",数目之巨可见卑诗省的考古学发展较早且研究深入<sup>13</sup>。为了保护这些考古遗址,它们的具体地址没有在名录中标明,而是使用一台加拿大考古学家通用的编码系统讲行编号。

《卑诗省遗产保护法》中关于遗产的部分,依法创建了"省级历史场所名录",并详细罗列了登录资格和登录流程,其中包含遗产检查和遗产调查等具体程序,以及遗产保护具体要求<sup>14</sup>。截止2023年,该名录仅有4600多处历史场所入列,可见发展较晚。温哥华遗产基金会认为《卑诗省遗产保护法》有待改进,因为其关于遗产的部分还比较模糊,相比1846年以前的考古遗址缺乏保护力度。

此外,卑诗省政府出台的《地方政府法》 <sup>15</sup>十分重要,它授予省内各个市级政府关于遗 产保护的权力与职责,并在"第15部分:遗产 保护"分项解析了地方政府可用的不同遗产规 划工具。



图 6. 卑诗省遗产名录(自绘) Fig.6. BC Provincial Heritage Register (drawn by author)

to the definition of the national heritage institution "Historic Places Canada," a historic place is a structure, building, group of buildings, district, landscape, archaeological site, or another place in Canada that has been formally recognized for its heritage value by an appropriate authority within a jurisdiction.

There are several national-level laws for the conservation of various types of built heritage, including the "Historic Sites and Monuments Act", the "Heritage Lighthouse Protection Act", and the "Heritage Railway Stations Protection Act". Within the framework of national legislation, the "Canadian Register of Historic Places" (CRHP) lists four categories of built heritage, namely: National Historic Sites of Canada (NHS), which as of 2023 consists of 1004 sites distributed throughout Canada, of which 171 are managed by Parks Canada, Heritage Railway Stations (HRS), Heritage Lighthouses (HL), and Federal Heritage Buildings (FHB).

Although there has been extensive discussion in theory about intangible heritage in Canada (especially regarding Indigenous heritage), Canada's current heritage laws and policies still focus primarily on tangible heritage, and as of 2023, Canada has not yet joined the "UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage. However, at the national level, Canada still has two categories of intangible cultural heritage that can be recommended by the "Historic Sites and Monuments Board of Canada" (HSMBC) for inclusion in the "Directory of Federal Heritage Designations", which covers both tangible and intangible cultural heritage: National Historic Persons (NHP) and National Historic Events (NHE). The Directory of Federal Heritage Designations currently has over 3600 designations.

#### (2) Provincial Level

At the provincial level, the most important legislation in British Columbia is the "British Columbia Heritage Conservation Act", which sets 1846 as the dividing line between "archaeology" (before 1846) and "heritage" (after 1846). With regard to archaeology, the Act established the "British Columbia Provincial Archaeological Site Inventory, " which has already recorded over 60,000 archaeological

#### 5 结语

尽管与国际保护思想和趋势保持一致,但加拿大由于其独特的历史、社会结构和法律体制等因素,使得该国在建筑遗产保护方面拥有独特的基石、关注点、管理路径和实践模式。本文基于加拿大卑诗省的案例,通过建筑遗产资源特征、多元文化社区诉求与遗产保护的关系、遗产保护机构构成以及遗产保护立法,来粗略勾画加拿大建筑遗产资源管理的宏观图景。限于篇幅,本文未能深入探讨加拿大遗产保护的各个方面,但作者希望未来有机会能够分享更深入的观察和分析。

sites as of 2023, "including the remains of village and other habitation sites, as well as resource procurement activities such as fishing weirs and culturally modified trees." The large number of recorded sites indicates that archaeology in British Columbia has developed early and indepth. To protect these archaeological sites, their specific locations are not marked in the inventory, but are instead numbered using a coding system commonly used by Canadian archaeologists.

Regarding heritage, the "Provincial Historic Site Inventory" has been established by law, which lists the eligibility and registration procedures, including specific procedures such as heritage inspection and investigation, as well as requirements for heritage conservation. As of 2023, only over 4,600 historic sites have been listed, indicating a later development stage. The Vancouver Heritage Foundation believes that the "British Columbia Heritage Conservation Act" needs improvement because its provisions regarding heritage protection are still relatively vague and lack the same level of protection for archaeological sites before 1846.

In addition, the "Local Government Act" enacted by the British Columbia government is very important as it grants municipal governments within the Province the power and responsibility to protect heritage, and provides a detailed explanation of the different heritage planning tools available to local governments in "Part 15: Heritage Conservation".

#### 5 Summary

Although Canada aligns with international guidlines and trends in heritage conservation, its unique history, social structure, and legal system contribute to its distinctive foundation, focus, management approach, and practice mode in the conservation of architectural heritage. This article uses the case of British Columbia, Canada, to sketch the macroscopic landscape of managing Canadian architectural heritage resources, including the characteristics of architectural heritage resources, the relationship between multicultural communities' demands and heritage conservation, the composition of heritage conservation organizations, and heritage conservation legislation. Due to word limits, this article cannot delve into all aspects of heritage conservation in Canada, but the author hopes to share more in-depth observations and analysis in the future if given the opportunity.

<sup>12</sup> 加拿大其他省对应《卑诗省遗产保护法》的省级法案有《安大略省遗产法》、《新斯科舍省遗产保护法》、《魁北克省文化遗产法》等。The provincial laws in Canada that correspond to the British Columbia Heritage Conservation Act include the Ontario Heritage Act, the Heritage Property Act (Nova Scotia), and the Cultural Heritage Act (Quebec), among others. BC Heritage Conservation Act: https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/00\_96187\_01

<sup>13</sup> https://www2.gov.bc.ca/gov/content/industry/natural-resource-use/archaeology

<sup>14</sup> https://heritagebc.ca/wp-content/uploads/2020/09/Heritage-Laws-in-BC-Quick-Study.pdf

<sup>15</sup> Local Government Act: ttps://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/r15001\_00

# 实践案例 Case Study

#### 遗产保护中文化地图的运用:以加拿大卑诗省为例

Exploring the Application of Cultural Mapping in Heritage Conservation: A Case Study of British Columbia, Canada

倪伊阳,潘一婷 Yiyang Ni, Yiting Pan

"文化地图测绘涉及社区识别和记录当 地文化资源。通过该研究,文化元素被记录下 来——画廊、手工艺产业、独特的地标、当地 事件和产业等有形资产,以及记忆、个人历史、 态度和价值观等无形资产。在研究了使社区独 一无二的元素之后,文化地图测绘意味着启动 一系列社区活动或项目,以记录、保存和使用 这些元素。…文化地图测绘的最基本目标,是 帮助社区认识、庆祝和支持文化多样性,以促 进经济、社会和区域发展。"

(Clark, Sutherland & Young, 1995年, 文化地图测绘研讨会主题演讲,澳大利亚)

近几十年以来,文化地图测绘逐渐成为遗产保护领域的一个重要工具,在有形遗产与无形遗产的保护方面发挥着至关重要的作用,并已获得了联合国教科文组织(UNESCO)的认可。随着近年来网络信息技术的发展,许多国外遗产保护相关机构将相关文化地图以网站内容等形式呈现给社会大众。本文挑选了若干个加拿大典型文化地图网站为案例,分析板块构成、互动性内容、表现方式等特点,并思考其对国内文化遗产资源可视化数字平台建构的启示。

#### 1. 文化地图平台运营者

加拿大文化地图数字平台按照运营者 大致分为两类。第一类为各级地方政府, 例如卑诗省政府官网上的"历史场所网络 地图"(图1),包含了所有卑诗省正式 登录的1846年后"历史场所",为当地公 众提供位于他们生活区域历史场所的网络

"Cultural mapping involves a community identifying and documenting local cultural resources. Through this research cultural elements are recorded - the tangibles like galleries, craft industries, distinctive landmarks, local events and industries, as well as the intangibles like memories, personal histories, attitudes and values. After researching the elements that make a community unique, cultural mapping involves initiating a range of community activities or projects, to record, conserve and use these elements. ...the most fundamental goal of cultural mapping is to help communities recognize, celebrate, and support cultural diversity for economic, social and regional development."

(Keynote speech, Clark, Sutherland & Young 1995. Cultural Mapping Symposium and Workshop, Australia)

In recent decades, cultural mapping has emerged as a pivotal tool in the field of heritage conservation. It plays a crucial role in preserving both tangible and intangible heritage, and has gained recognition from UNESCO. With the advancement of online information technology in recent years, numerous foreign heritage conservation organizations have made their cultural maps publicly available via websites. In this paper, we have selected several exemplary Canadian cultural map websites as case studies, analyzing their composition, interactive content, and presentation methods. Furthermore, we have considered how their findings may be applied to the construction of a digital platform for visualizing cultural heritage resources in China.

## 1. The Operators of Cultural Map Platforms

数字化检索。又如大温哥华地区新西斯敏市政厅的"遗产资源名录"互动地图,基于1980年代的针对本市范围内遗产资源的大型普查成果,该地图除了包含法定保护的历史场所外,还包含了一些被认为有遗产价值、但未受到法定保护的历史地产。

第二类为非政府机构(主要为地方遗产保护组织)制作、运营的文化地图平台。例如卑诗省遗产协会官网的文化地图系列,按社区或遗产类型,分成了法裔历史场所地图、华裔加拿大人历史场所地图、南亚裔加拿大人历史场所地图、日亚裔加拿大人历史场所地图、战争纪念碑和纪念馆地图、水下遗产资源地图、哥伦比亚盆地地区地区遗产场所地图,近期刚刚推出一个新的"工业遗产场所地图"板块,正在开放接受提名申请。

#### 2. 文化地图的遗产种类

加拿大文化地图数字平台按照所收录的文化遗产种类,大致分为两种。一种是聚焦遗产价值受到法定认可的各类"遗产名录",例如温哥华遗产基金会的"温哥华遗产也查找器互动地图",收录了"温哥华遗产名录"中的各类遗产建筑,以及景观、公园和纪念物,可以帮助用户在探索温哥华历史文脉和城市景观时,通过手机等移动设备,查看遗产位置、图片、描述以及有用链接。

另一种文化地图更加"非正式"和包罗万象,选择收录的遗产种类和范围更加多元,如新西斯敏市政厅与新西斯敏艺术委员会、道格拉斯学院合作创建的"文化地图",文化要素拓展到活动、艺术家、故事、公共艺术等非物质性要素,侧重于文化和遗产的交流传播和活化振兴。(图1)

#### 3. 文化地图的有效范围

文化地图的有效范围通常局限在一个行政 区域。例如新西斯敏市政厅的"文化地图"上, 所有显示的遗产要素全部都在新西斯敏市行政 区内,超过这个范围则只显示地图底图。类似的, 温哥华遗产基金会的"温哥华遗产地查找器互 动地图"也仅能查找到温哥华市范围内的遗产

Canada's cultural map digital platforms are broadly divided into two categories based on their operators. The first category is for all levels of local government, such as the British Columbia Provincial Government's "BC Historic Places Web Map" on its official website. It contains all of BC's officially recorded post-1846 "historic places" and provides local residents with web-based digital access to historic places located in their neighborhoods. Another example is the City of New Westminster's "Heritage Resource Inventory", which is based on a major survey of heritage resources within the city in the 1980s. It includes not only legally protected historic places but also some historic properties that are considered to be of heritage value but are not legally protected.

The second category consists of cultural mapping platforms produced and operated by non-governmental organizations, primarily local heritage conservation organizations. For example, the Heritage BC website has a series of cultural maps that are divided by community or heritage type, including the Francophone Historic Places Map, the Chinese Canadian Historic Places Map (Fig.3), the South Asian Canadian Historic Places Map, the Japanese Canadian Historic Places Map, the War Monuments and Memorials Map, the Submerged Heritage Resources Map, and the Columbia Basin Region Heritage Places Map. Recently, Heritage BC launched a new "Map of Industrial Heritage Places" section that is now open for nominations.

## 2.Heritage Types Included by Cultural Maps

Canada's cultural map digital platforms can be generally divided into two categories based on the type of cultural heritage included. One category focuses on various types of "heritage listings" whose heritage values are legally recognized. For example, the Vancouver Heritage Foundation's "The Vancouver Heritage Site Finder Interactive Map" includes heritage buildings, landscapes, parks, and monuments from the Vancouver Heritage Register. It helps users explore Vancouver's heritage and urban landscape using mobile devices, allowing them to view heritage locations, images, descriptions, and useful links while exploring Vancouver's historic and urban landscape.

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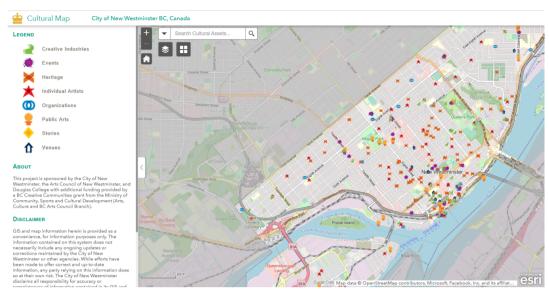


图 1. 新西斯敏市政厅文化地图 Fig.1. The "Cultural Map" by the City of New Westminster

地。虽然上述两个城市相隔很近(10公里), 仅因各自独立管辖权,加上遗产登录法规有一 定区别,各自形成了独立的文化地图平台。

#### 4. 文化地图的构成要素

文化地图数字平台页面内容主要由地图底 图、图层和图例、描述说明三部分构成。

- (1) 地图底图: 文化地图多为 2D 平面图, 以 Google Map、Mapbox 等地图为主,有些地图 提供不同底图,例如卑诗省遗产协会(Heritage BC) 官网的文化地图系列(图2),提供了18 种不同的底图选项,包括道路图、地形图、航 拍图等等。
- (2)图层与图例:文化地图设有多个图层, 并用不同的图例来区分表达。例如,一些文化 地图如温哥华遗产基金会的"温哥华遗产地查 找器互动地图" 以按历史建筑类型、建筑重要 程度、保护认可程度来进行图层的分类。图例 的选择分为三类,一种是仅以不同颜色的图块 来表示不同图层的范围;一种是以数字形式来 表示该地区遗产数目;此外,文化地图多使用 相关建筑类型的图标来表示该建筑遗产的性质 与功能。(图3)
  - (3)描述说明: 文化地图的描述说明分为

The second type of cultural map is more informal and all-encompassing, with a more diverse selection of heritage types and scope, such as the "Cultural Map" created by the City of New Westminster in partnership with the New Westminster Arts Council and Douglas College. It expands the cultural elements to include events, artists, stories, public art, and other intangible elements, with a focus on the exchange, dissemination, and revitalization of culture and heritage. (Fig.1)

#### 3. The Effective Scope of A Cultural Map

The effective scope of a cultural map is usually limited to a specific administrative area. For instance, on the Cultural Map at New Westminster City Hall, all displayed heritage elements are located within the administrative boundary of the City of New Westminster, and outside this area, only the base map is displayed. Similarly, the Vancouver Heritage Foundation's "Vancouver Heritage Site Finder Interactive Map" can only locate heritage sites within the city limits of Vancouver. Despite being close to each other (within 10 km), these two cities form separate cultural map platforms due to their distinct jurisdictions and varying heritage registration regulations.

#### 4. Components of a Cultural Map

The content of a Cultural Map digital

文字与照片两类, 多以文字与照片的组合形式 出现。文字说明主要向用户展示该历史遗产的 基本信息,包括遗产名称、种类、所处位置、

platform typically consists of three main components: based maps, layers and legends, and descriptions.

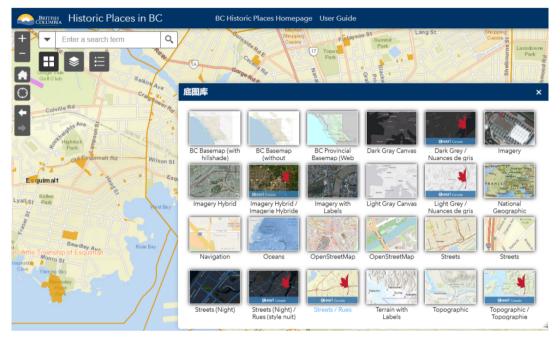


图 2. 卑诗省遗产协会官网的文化地图的不同底图 2

Fig. 2. The different base map options of "BC Historic Places Web Map" by the Heritage BC

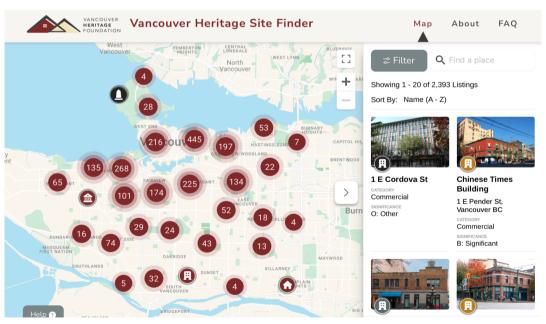


图 3. 温哥华遗产基金会的"温哥华遗产地查找器互动地图"图层分类3

Fig.3. The categorize layers of Vancouver Heritage Foundation's "Vancouver Heritage Site Finder Interactive Map"

<sup>1</sup> https://newwestcity.maps.arcgis.com/apps/MapSeries/index.html?appid=2225804af5444a6e963b5168e1f8e1f3

<sup>2</sup> https://governmentofbc.maps.arcgis.com/apps/webappviewer/index.html?id=4926e2fd04b6484ba47c3a8cd1420

<sup>3</sup> https://www.heritagesitefinder.ca/

历史信息等等:一些网站在展示历史遗产现状 照片的同时, 也提供该遗产的历史照片来展示 变化。描述说明的出现形式大致有两种:一种 为该网站自身对建筑遗产的相关描述; 第二种 为一些关于该遗产的信息的网页链接。

#### 5. 文化地图的可视化表现

文化地图中历史遗产的可视化表现可分为 以下几类情况:

- (1) 遗产信息数据的可视化: 文化地图收 录各类历史社会遗产要素,可作为统计该地区 遗产数据的参考。温哥华遗产基金会的"温哥 华遗产地查找器互动地图"就以数字图例的形 式来说明该区域收录遗产的数目; 此外, 卑诗 省遗产协会 (Heritage BC) 官网的文化地图则 采用遗产表格的形式来展示遗产资源的相关信
- (2) 遗产分布的可视化: 文化地图中遗产 位置的标明可展现出遗产分布的相关特点。
- (3) 历史发展的可视化:一些文化地图展 示了该地区/遗产的历史发展情况。例如在卑 诗省政府的"历史人口地图"中,该网站以一 个时间轴拖动的形式, 收录了1750年至2018 年卑诗省的一系列历史事件, 可以帮助用户更 好地探索卑诗省历史的发展。(图 4)

- (1) Base maps Cultural maps are mostly 2D flat maps, usually displayed using Google Map, Mapbox, or other map websites. Some websites provide different base map options, including road maps, topographic maps, aerial maps, and more. For example, the Cultural Maps series on the Heritage BC website offers 18 different base map options (Fig.2).
- (2) Layers and legends: Cultural maps have multiple layers and are represented with different legends to differentiate them. For instance, the Vancouver Heritage Foundation's "Vancouver Heritage Site Finder Interactive Map" categorizes layers by historic building type, architectural significance, and preservation recognition. The choice of legends is divided into three categories. The first uses only blocks of different colors to indicate the extent of the different layers. The second category indicates the number of heritage sites in the area numerically. Lastly, the third category uses icons of the relevant building type to indicate the nature and function of the built heritage. (Fig.3)
- (3) Descriptions: The descriptions of cultural maps are mainly presented as a combination of text and photographs. The textual descriptions mainly provide users with basic information about the historic property, such as the name, type, location,

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图 4. 卑诗省的历史人口地图 Populous Map 的时间轴 Fig.4. Timeline of the "Populous Map"

#### 6. 文化地图的交互性途径

文化地图的交互性途径可分为两大阶段: 前期地图设计阶段与后期网页展示阶段。在前 期设计过程中, 政府、社会遗产保护机构鼓励 社会群众提交分享该地的建筑遗产与相关历史 信息,例如近期卑诗省遗产协会(Heritage BC) 官网所开展的工业遗产地图绘制板块(图 5);另一方面来看,当这类文化地图被最终制 作完成并展现给社会, 文化地图仍然会保留一 个补充历史信息的页面, 鼓励社会群众分享关 于该建筑遗产的历史故事,旨在对此文化地图 的内容进行进一步的完善优化。

另外, 就上文所提, 该类文化地图运营者 为政府机构或社会机构, 因而此类文化地图可 作为此类机构一些遗产保护相关活动的参考指 南, 例如卑诗省遗产协会官网所开展的一系列 遗产保护讲座与活动。此类文化地图亦可作为 一些学者研究当地历史发展的参考凭证, 或是 作为此地旅游的游客指南。

and history of the property. Some websites also provide historical photographs of the property alongside photographs of its current state to reveal the changes. Descriptions can take two forms: a description of the built heritage on the site itself and links to pages with information about the heritage.

#### 5. Visual Representation of the Cultural Map

The visual representation of historical heritage in cultural maps can be divided into the following categories:

(1) Visualization of heritage information data: Cultural maps include various elements of historical and social heritage that can be used as a reference for statistical data on the region's heritage. For example, the Vancouver Heritage Foundation's "Vancouver Heritage Place Finder Interactive Map" illustrates the number of heritage sites in the region in the form of a numerical legend. Additionally, the BC Provincial Governemnt's "BC Historic Places Web Map" uses a heritage table to display information about heritage resources.



图 5. 卑诗省遗产协会的文化地图的工业遗产地图绘制板块 5 Fig.5. Industrial Heritage Inventory and Cultural Map on the Heritage BC Website

#### 7. 启示与思考

从加拿大的文化地图实例来看, 其不仅仅 作为一个展示历史信息的相关地图, 更像一个 社会参与的交互平台。与国内一些展现历史信 息的网站相比,如中国历史地理信息系统,操

- (2) Visualization of heritage distribution: The location of heritage is indicated on the cultural map to show the relevant characteristics of heritage distribution.
- (3) Visualization of historical development: Some cultural maps show the

POPULOUS

<sup>4</sup> https://populousmap.com

<sup>5</sup> https://heritagebc.ca/cultural-maps/industrial-heritage/

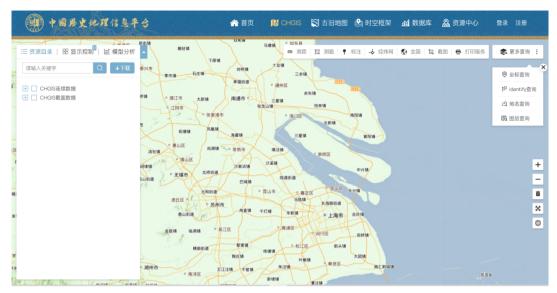


图 6. 中国历史地理信息系统数字化平台 Fig.6. The Chinese Historical GIS digital platform<sup>6</sup>

作界面更为清晰简便。文化地图也能够反应出 此地区的文化遗产保护现状。

就目前我国文化地图测绘发展情况来看, 无论是从网页内容的内容排布、页面设计,或 是相关社会参与,均可待进一步优化。

- (1) 文化地图的前期制作中,应注重社 会群众的参与感,一方面通过此举可获得更多 的相关历史信息,另一方面可以提高社会对文 化遗产保护的认同感, 自下而上完善文化遗产 保护体系。
- (2) 文化地图页面内容设计中, 需注重重 点信息的表达方式,此地区各历史地图的重叠 展现城市历史格局变化; 相关遗产的详细介绍, 可以以链接网页的方式引出; 此外, 可以借此 来对该城市地区遗产进行分类,尝试建立信息 数据库。
- (3) 文化地图的后续使用中,不应仅仅 作为当地的旅游/历史参考; 更可作为一个媒 介,通过此非专业人士也能对此地区有一个大 致的历史了解,一些其他专业人士也能从自身 专业角度给文保事业提出建议。

综上所述, 如何处理社会、人民与遗产 三者之间的关系似乎成为了当今文化遗产保护

historical development of the area/ heritage. For instance, in the Populous Map, a historical population map of the BC Provincial Government, the website features a series of historical events in BC from 1750 to 2018 in the form of a timeline that can be dragged to help users better explore the development of BC's history (Fig.4).

#### 6. Interactivity Pathways for Cultural Maps

The interactive approach to cultural mapping can be divided into two main stages: the pre-design stage of the map and the post-page presentation stage. During the pre-design process, government and heritage conservation agencies encourage the community to submit and share information about the built heritage and history of the site, such as the recent industrial heritage mapping section on the Heritage BC website (Fig.5). On the other hand, when the cultural map is finalized and presented to the community, it will still have a page with additional historical information to encourage the community to share stories about the building's heritage, with the aim of further improving the map's content.

Additionally, as mentioned above, these cultural maps are operated by government or community agencies and can be used as a reference guide for heritage conservation activities, such as the Heritage BC website's series of heritage conservation talks and

的一难题。面向未来, 文化遗产的保护也将趋 于多方向融合发展,数字化时代的当今,文化 地图平台的构建必将成为城市历史遗产保护的 重要一环。

events. They can also be used as a reference by scholars researching the history of the area or as a guide for tourists visiting the

#### 7. Inspiration and Reflection

The cultural map in Canada is an excellent example of how it can be used not just as a tool for displaying historical information, but also as an interactive platform for social participation. The interface is user-friendly and more accessible than some Chinese websites that present historical information, such as the Chinese Historical Geographic Information System (Figure 12). Additionally, cultural maps are an effective way to reflect the current state of cultural heritage conservation in an area.

While cultural mapping is gaining momentum in China, there is still significant room for improvement. Content layout, page design, and social participation are areas that could benefit from further optimization.

- (1) When producing the cultural map, it is important to prioritize public participation. This not only helps to gather relevant historical information but also fosters social recognition of cultural heritage protection, which can lead to a more comprehensive and effective cultural heritage protection system from the grassroots level.
- (2) When designing the cultural map pages, it is essential to emphasize key information, such as the overlapping of historical maps to showcase changes in the city's historical patterns. In addition, detailed descriptions of relevant heritage can be linked to web pages, and the heritage can be categorized to establish an information database.
- (3) The cultural map should serve not only as a tourist or historical reference but also as a means for the public to gain a general understanding of the area's history. Moreover, professionals can provide advice on cultural preservation based on their expertise.

In summary, the relationship among society, people, and heritage is a complex one, and cultural heritage conservation is challenging in today's world. In the digital age, developing a cultural map platform is crucial for preserving the city's historical heritage.

# 平台动态 Platform Dynamics

### 巴塔利亚修道院(葡萄牙)石灰石表面的橙色覆膜("古锈"): 表征与劣化模式

#### Surface Orange Patinas on the Limestone of the Batalha Monastery (Portugal): **Characterization and Decay Patterns**

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Source: Yufan Ding, Pedro Redol, Emma Angelini, José Mirão, Nick Schiavon. Surface orange patinas on the limestone of the Batalha Monastery (Portugal): characterization and decay patterns. Environmental Science and Pollution Research (2022) 29:29467–29477. <a href="https://doi.org/10.1007/s11356-021-15490-021">https://doi.org/10.1007/s11356-021-15490-021-15490-021</a> 1>[accessed on 2023-04-06]

著名的巴塔利亚修道院位于葡萄牙中部的 巴塔利亚小镇, 是用从建筑周围地区的几个采 石场采集的侏罗纪鲕粒状石灰岩建造和修复的。 虽然其最初的颜色是白色, 但如今在修道院的 外墙、装饰物、柱子和墙壁的表面可以看到其 石灰石上广泛地存在着橙色的覆膜。

在本研究中, 我们对葡萄牙巴塔利亚修 道院的两件不同的石灰石器物上发现的橙色表 面覆膜进行了化学和矿物学特征分析。具体而 言,通过 X 射线微衍射仪 (μ-XRD)和低真空 扫描电子显微镜与能量色散光谱仪(LV-SEM + EDS),对巴塔利亚修道院的一个石灰石窗花和 一个装饰品上的橙色覆膜样品进行了调查研究。 该研究的目的是确定分层覆膜的组成,评估它 们是有意为之还是自然形成, 并研究它们的劣 化模式。

本研究的结果显示,虽然都被命名为"橙 色覆膜",但窗框和装饰品上的橙色覆膜显示

The famous Batalha Monastery located in the small town of Batalha in Central Portugal was built and restored using Jurassic oolitic limestones extracted from several quarries in the region surrounding the monument. Although originally white in color, the monastery limestone is now extensively covered with orange patinas which can be seen on the surface of facades. ornaments, columns, and walls.

In this research, a chemical/ mineralogical characterization was carried out on orange surface patinas found in two different limestone artifacts from Batalha Monastery in Portugal. More specifically, samples of orange patinas found on a limestone window tracery and an ornament of the Batalha Monastery have been investigated by X-ray microdiffractometry (µ-XRD) and low-vacuum scanning electron microscopy coupled with energy dispersive spectrometry (LV-SEM + EDS). The aim of the study was to determine the composition of the layered patinas, assess whether they have been 出不同的成分和外观, 这表明了不同的形成途

装饰物上的橙色覆膜现在已经出现了腐烂 和分层的现象。装饰物主要是由石膏 (gypsum) 组成,次要成分是赤铁矿(hematite),而 钾长石(K-feldspars)可能来自遗迹中的土 壤灰尘和砂浆接缝。橙色覆膜极有可能是有意 为之,使用与修道院的使徒雕像相同的工艺程 序。它的分层是一种典型的盐类腐蚀现象,因 为在剥落表面下的基底上发现了高浓度的石盐 (halite) .

intentionally applied or naturally formed, and study their degradation patterns.

The results of this research revealed that, though both named "orange patinas", the orange patinas on the window tracery and the ornament showed different compositions and appearance, suggesting distinct formation pathways.

Orange patinas on the ornament, which are now showing decay and delamination patterns, mainly consisted of gypsum with hematite as a minor component, with traces of Kfeldspars possibly from soil dust and

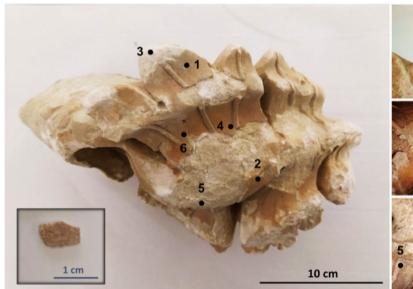


Fig. 2 Ornament "S-116" and the peeled-off surface fragment

图2 饰物 "S-116 "和剥落的表面碎片

相反, 窗饰上的橙色覆膜显示了草酸钙 (Ca-oxalates)的存在,包括大量的二水 合草酸钙石(weddellite) (CaC<sub>2</sub>O<sub>4</sub> • 2H<sub>2</sub>O) 和少量的一水合草酸钙石(whewellite) (CaC<sub>2</sub>O<sub>4</sub> • H<sub>2</sub>O)。草酸钙与少量的赤铁矿表明 淡黄色 / 橙色的存在是由于草酸钙混入了灰尘 和微生物残骸,这种覆膜可能是由于交通废气 排放的大气空气污染物或细菌活动引起的化学 腐蚀而自然形成的。窗饰样品未观察到分层, 而是以颗粒脱落为主要老化现象。我们将这种 覆膜与所谓的"scialbatura"进行了比较,后 者是保护工作者在地中海地区古代遗迹的石灰 石和大理石上经常发现的一种表面淡黄色的覆 膜,它可能是由于空气污染和细菌的代谢活动 而产生的。

mortar joints in the monument. It is highly likely to be applied intentionally, using the same craft procedure as the apostle statues of the monastery. Its delamination is a typical phenomenon of salt decay, for high concentration of halite was found on the substrate under the exfoliated surface.

Orange patinas on the window tracery show, instead, the presence of Caoxalates, abundant weddellite, and minor whewellite, with minor hematite suggesting the yellowish/orange color as being due to Ca-oxalate patinas imbedding soil dust airborne particles. Such patina was possibly formed naturally either by the chemical attack due to atmospheric air pollutants from traffic exhausts emissions or by bacterial activity. No delamination was observed on the window tracery sample 2023. Issue. 3 (Vol.3, No.9) 2023 年第三期 (第三卷,总第九期)



Fig. 3 Window tracery piece from the Royal Cloister of the Monastery

图 3 修道院皇家回廊的窗饰

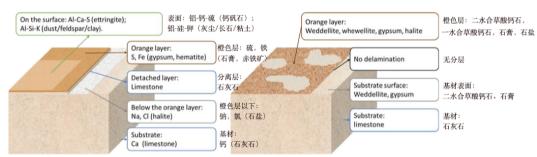


Fig. 9 Sketch of the sample "S-116" (left) and the Window tracery (right)

图9样品"S-116"(左)和窗饰(右)的简图。

(注:图片编号依照来源论文中的图片编号) (高鑫,赵欣怡编译,丁羽帆校)

with granular decohesion as the major decay phenomenon. A comparison was made between this patina and the so-called "scialbatura", a surface yellowish coating often found by conservators on limestone and marble in ancient monuments in the Mediterranean region. This patina was likely generated due to the air pollution and the bacterial metabolic activities.

(Note: The image numbers are based on the image numbers in the source paper)

(translated and edited by Xin Gao and Xinyi Zhao, and proofread by Yufan Ding)

# 活动报道 Latest Events

### (英国) 建造史学会 40 周年庆典暨第十届建造史学会会议 于 2023 年 4 月 12-13 日在剑桥皇后学院成功召开

Tenth Annual CHS Conference Celebrating 40 Years of the Construction History Society Was Sucessfully Held at Queens' College, Cambridge, 12-13 April 2023

来源: 英国建造史学会官网 <a href="https://www.constructionhistory.co.uk">https://www.constructionhistory.co.uk</a> [accessed on 2023-04-15] Source: Official website of the Construction History Society <a href="https://www.constructionhistory">https://www.constructionhistory</a>. co.uk>[accessed on 2023-04-15]



图 1. 第十届建造史学会会议主会场会 Fig.1. The main venue of the 10th Annual CHS Conference

2023年是(英国)建造史学会(CHS)成 立 40 周年。自 1985 年首次出版以来, 建筑史 学会的学术期刊《建造史》,已出版38年,并 成为该领域内领先的国际性期刊。《建造史》 如今是 A&HCI 收录期刊,它因其广泛、深入的 研讨而享有很高的声誉。今年, (英国)建造 史学会 40 周年庆典暨第十届建造史学会会议 于 2023 年 4 月 12-13 日在剑桥皇后学院成功 召开。该会议的特色主题是混凝土、灰浆与水 泥,但与往常一样,会议欢迎关于建造史各个 方面的学术论文。今年, 建造史学会收到来自 英国、欧洲、加拿大、新西兰、日本、中国和 美国的大约70篇摘要。最终有47篇论文被接 受,在会议的16个分会场上进行宣讲和讨论, 并在第十届年会集中发表。这些研究涵盖了材 料,中世纪拱顶,法规和职业,罗马拱顶,环 境设计,承包商,技术传承,运河和港口,

of the Construction History Society (CHS). Since its first publication in 1985, the academic journal "Construction History" of the Construction History Society has been published for 38 years and has become a leading international journal in the field. "Construction History" is now an A&HCI-indexed journal and enjoys a high reputation for its extensive and in-depth coverage. This year, the Tenth Annual CHS Conference Celebrating 40 years of the Construction History Society was sucessfully held at Queens' College, Cambridge, 12-13 April 2023. The special theme of the Conference is Concrete, Plaster, and Cement, but as always, the Conference welcomes papers on all aspects of construction history. This year, CHS received about 70 abstracts from across the UK, Europe, Canada, New Zealand, Japan, China, and the United States. In the end, 47 papers were accepted, presented and discussed in the 16 sessions of the Conference, and published in the Proceedings of the Tenth Annual Conference. These studies cover topics such as Materials, Medieval Vaults, Codes and Professions, Roman Vaults, Environmental Design, Contractors, Transmission of Technology, Canals and Harbors, Inventions and New Techniques, Lighthouses, Canals and Aqueducts, 17th Century Masonry and Vaulting, Timber, Concrete and Cement, Steel, Bridges, and Brick and Stone. The conference also invited American professor Tom Peters, who is well-versed in the field of

2023 marks the fortieth anniversary

2023. Issue. 3 (Vol.3, No.9) 2023 年第三期 (第三卷, 总第九期)



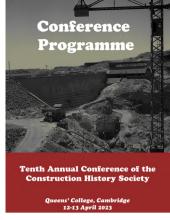


图 2: 建造史学会 40 周年庆典在剑桥皇后学院 老礼堂举行

Fig.2. CHS 40th Anniversary Celebration at Old Hall, Queens' College, Cambrdige

图 3: 第十届建造史学会会议手册封面 Fig.3. Cover of Proceedings of the Tenth Annual Conference of Construction History

Society (Image courtesy of the Consutrction History Society)

发明和新技术, 灯塔, 运河和高架渠, 17世纪的砖石结构和拱顶, 木材, 混凝土和水泥, 钢铁, 桥梁, 以及砖石等主题。会议还邀请到建造史领域造诣深厚的美国教授 Tom Peters 作为主旨演讲嘉宾, 分享他对法国工程师 Louis Vicat (1786-1861) 和水硬性水泥发展的深入见解。

construction history, as the keynote speaker to share his in-depth insights into the development of hydraulic cement and French engineer Louis Vicat (1786-1861).

### 第八届国际建造史大会将于 2024 年 6 月在瑞士苏黎世联邦理工大学召开 The 8th International Congress on Construction History Will Be Held in ETH

Zurich, Switzerland, in June 2024

来源:第八届国际建造史大会官网 <a href="https://8icch.ethz.ch/about.html">https://8icch.ethz.ch/about.html</a>[accessed on 2023-04-15] Source: Official website of the 8th International Congress on Construction History <a href="https://8icch.ethz.ch/about.html">https://8icch.ethz.ch/about.html</a>[accessed on 2023-04-15]



图 4: 第八届国际建造史大会海报 Fig.4. Poster of the 8th International Congress on Construction History

第八届国际建筑史大会将于 2024 年 6 月 24 日至 28 日在苏黎世举行。历次大会曾在西班牙马德里(2003年)、英国剑桥(2006年)、德国科特布斯(2009年)、法国巴黎(2012年)、美国芝加哥(2015年)、比利时布鲁塞尔(2018年)和葡萄牙里斯本(2021年)成功举办。

该大会旨在汇集建造史的各个方面——材料、建筑技术、建筑类型,涉及人员和公司、建筑的社会文化方面以及科学知识的历史。此外,研究方法也是一个重要的焦点。该大会邀请来自各个背景的学者前来苏黎世,展示他们在领域内的学术成果,交流思想,并建立联系。

第八届国际建造史大会(8ICCH)的承办单位是苏黎世联邦理工大学(ETH Zurich)。 遗产保护与建造史研究所(IDB)的建筑考古学和建造史教席 Stefan M. Holzer 教授和建筑遗产保护教席 Silke Langenberg 教授将共同领导大会组委会。

第八届国际建筑史大会的科学委员会由在建造史学科特定领域和主题方面卓著的国际专家组成1。该委员会负责审查和评选提交的摘要和论文。中国 - 葡萄牙文化遗产保护科学联合实验室的研究成员、苏州大学建造史与文化遗产保护方向副教授潘一婷博士应邀成为该科学委员会成员。

自从 2018 年在布鲁塞尔举办的第六届国际建造史大会 (6ICCH) 开始,将"主题分论坛"纳入大会议程已成为会议的重要传统。这些主题分论坛旨在聚集研究者,以特别有益的相互交流氛围来讨论焦点主题。第八届国际建筑史大会 (8ICCH) 涵盖了 13 个主题分论坛,具体包括:

- TS1: 地中海地区中世纪住宅和休闲 场所的建筑设备和生活舒适性(主持人: Kai Kappel, Klaus Tragbar)
- TS2: 20 世纪后半叶东中欧和东南欧混凝土结构的挑战: 从国外启示到本土化解决方案(主持人: Iva Stoyanova)
- TS3: 历史建筑中的合作: 自然但无形 (主持人: Laurens Bulckaen, Rika Devos)
  - TS4: 建筑承包商: 18世纪到 20 世纪

The 8th International Congress on Construction History will be held in Zurich from June 24 to 28, 2024. It follows a series of thriving congresses in Madrid, Spain (2003), Cambridge, UK (2006), Cottbus, Germany (2009), Paris, France (2012), Chicago, USA (2015), Brussels, Belgium (2018) and Lisbon, Portugal (2021).

The ICCH aims at bringing together all aspects of construction history: materials, building techniques, types of construction - but also the people and companies involved, socio-cultural aspects of building and the history of science and knowledge. An important focus will also be on research methodology. The Congress invites researchers from various backgrounds to present their work in this field - come to Zurich to meet, to exchange scientific ideas, to socialise and network.

The host of the 8ICCH is ETH Zurich. Prof. Dr.-Ing. Stefan M. Holzer, Chair of Building Archaeology and Construction History, and Prof. Dr.-Ing. Silke Langenberg, Chair of Construction Heritage and Preservation at the Institute for Preservation and Construction History (IDB) at ETH Zurich, are leading the Organizing Committee.

The Scientific Committee of the 8ICCH consists of distinguished international experts in specific fields and topics within the discipline of construction history. It is responsible for the selection and review of submitted abstracts and papers. Dr Yiting Pan, Researcher at China-Portugal JLBRI of Cultural Heritage Conservation Science and Associate Professor in Construction History and Heritage Conservation at Soochow University was invited to be a member of the Scientific Committee.

Since the 6ICCH in Brussels (2018) it has become a strong tradition to include thematic sessions in the congress programme. These thematic sessions aim at bringing together researchers to discuss focal topics in a particularly fruitful atmosphere of mutual exchange. 8ICCH features 13 thematic sessions, including:

- TS1 Building Services and Living Comfort in Medieval Residences and Places of Leisure in the Mediterranean Region (Session Chairs: Kai Kappel, Klaus Tragbar)
- TS2 Challenging concrete structures in East Central and Southeastern Europe

<sup>1</sup> https://8icch.ethz.ch/organisation/scientific-committee.html

末建筑文化的新视角(主持人: Inge Bertels, Mike Chrimes)

- TS5: 20世纪下半叶和21世纪初 的建造史(主持人: Orkun Kasap, Silke Langenberg)
- TS6: 危机时期的建筑劳动力(主持人: Nick Beech, Linda Clarke, Christine Wall)
- TS7: 从基础到屋顶: 1400年至1700 年之间的建筑工程绘图(主持人: Krista De Jonge, Merlijn Hurx)
- TS8: 建筑史如何塑造全球化: 19-20 世 纪的欧亚案例(主持人: 舒畅雪博士)
- TS9: 人物传记学如何助力建造史? (主持人: Michela Barbot, Robert Carvais, Emmanuel Château-Dutier, Valérie Nègre)
- TS10: 大范围视角下的拆毁、回收和再 利用历史(主持人: Ine Wouters, Stephanie Van de Voorde, Maxime L'Héritier, Philippe Bernardi)
- TS11: 专利在19世纪建筑结构发展中 的重要性(主持人: Francisco Domouso de Alba)
- TS12: 跨国桥梁: 移民的建造史视角 (主持人: Jana Keck, Karl-Eugen Kurrer, Eberhard Pelke)
- TS13: 走向未来: 20世纪砖拱住房的 叙事(主持人: Wesam Al Asali, Alejandra Albuerne Rodríguez)

对于中国和亚洲而言, 最相关的主题分论 坛是"TS8: 建造史如何塑造全球化: 19-20世 纪欧亚案例",由比利时鲁汶天主教大学学者 的舒畅雪博士倡议并主持。该主题分论坛的主 旨如下:

"在19-20世纪的全球化中,建造是否仅 仅作为应用科学/实践遵循政治、经济和制度 权力,就像大量世界历史和技术史文献似乎表 达的那样? 建筑史作为一个学科领域, 应如何 有别于其他学科领域地调查建造活动?

本分论坛旨在通过将建造视为塑造 全球化的历史角色进而推动建造史的研 讨。建造既是过程又是实践,它在知识和

from the second half of the 20th century: from foreign inspirations to local solutions (Session Chair: Iva Stoyanova)

- TS3 Collaboration in historical buildings: self-evident but intangible (Session Chairs: Laurens Bulckaen, Rika Devos)
- TS4 Construction contractors. New perspectives on the culture of construction from the 18th to the late 20th century (Session Chairs: Inge Bertels, Mike Chrimes)
- TS5 Construction History of the second half of the 20th and early 21st century (Session Chairs: Orkun Kasap, Silke Langenberg)
- TS6 Construction labour in times of crisis (Session Chairs: Nick Beech, Linda Clarke, Christine Wall)
- TS7 From Foundation to Rooftop: Architectural Engineering Drawings Between 1400 and 1700 (Session Chairs: Krista De Jonge, Merlijn Hurx)
- TS8 How Construction History shaped Globalisation: The 19th and 20th century Eurasian cases (Session Chair: Chang-Xue Shu)
- TS9 How might Prosopography help Construction History? (Session Chairs: Michela Barbot, Robert Carvais, Emmanuel Château-Dutier, Valérie Nègre)
- TS10 The history of deconstruction, salvage and reuse in a larger perspective (Session Chairs: Ine Wouters, Stephanie Van de Voorde, Maxime L'Héritier, Philippe Bernardi)
- TS11 The importance of patents in the development of building structures in the 19th century (Session Chair: Francisco Domouso de Alba)
- TS12 Transnational Bridges: Construction History through the Eyes of Migrants (Session Chairs: Jana Keck, Karl-Eugen Kurrer, Eberhard Pelke)
- TS13 Vaulting into the Future: Narratives of Brick Vaulted Housing in the 20th Century (Session Chairs: Wesam Al Asali, Alejandra Albuerne Rodríguez)

The thematic session that most relevant to China and Asia in general is "TS8 How Construction History shaped Globalisation: The 19th and 20th century Eurasian cases", proposed and chaired by Dr Chang-Xue Shu based in Katholieke Universiteit Leuven, Belgium. The proposal of this thematic session is as follows:

材料之间穿梭, 具有自身的理性和文化。在过 去的两个世纪中,建筑工业与世界范围内贸易、 农业、采矿、铁路、移民和宣教士等发生互动。 它调动了全球范围内的自然和人力资源,并(重 新)构建了社会-物质系统,包括一系列设备、 技术、思想和机构。

虽然欧亚是本主题分论坛的实证出发点, 但研究也可以涵盖其他地理区域, 只要它们符 合上述观点。我们欢迎研究建造在全球-本地 背景下如何加强/阻碍知识交流、(重新)配 置物质化并引发新的技术/社会问题。我们强 调在来源材料中非显性的门户、路径和机制。 一个合适的提案应该阐述其研究问题、来源和 方法。"

该主题分论坛热诚欢迎来自世界各地的学 者分享他们深入的案例研究和批判性讨论,以 促进对建筑史如何塑造全球化的理解。



图 5. 第八届国际建造史大会举办地苏黎世联邦理工大学 Fig.5. The venue of the 8th International Congress on Construction History at ETH Zurich (Image courtesy of ETH

"Did construction only play a role as applied science/practice following political, economic and institutional powers in the 19th and 20th century globalisation, as the enormous body of literature in World History and History of Technology has seemingly generated such an image? How should Construction History—as a disciplinary domain-investigate into construction activities differently?

This session seeks to advance the discourse on construction history by considering construction as a historical actor in shaping globalisation. Construction is both process and practice shuttling between knowledge and material with its own rationale and culture. In the last two centuries, the building industry interacted with, for instance, trade, agriculture, mining, railway, immigration and missionary worldwide. It deployed a global range of natural-human resources, and (re)constructed social-material systems including sets of equipment, techniques, ideas and institutes.

While Eurasia is the point of departure in this session empirically, studies may also cover other geographies provided that they address the viewpoints above. We welcome papers showcasing how construction intensified/impeded exchange of knowledge, (re)configured materialisation, and engendered new technical/societal problems in a global-local context. We stress gateways, paths and mechanisms that are less visible in source material. An eligible proposal should articulate its research question, sources and methods."

This thematic session warmly welcomes researchers from around the world to share their in-depth case studies and critical discussions, contributing to the understanding of how globalization was shaped by construction history.

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