



嘉宾：金嘉懿 (Jiayi Jin)，英国诺森比亚大学 (Northumbria University) 建筑与建成环境系助理教授

采访：张亦弛，挪威奥斯陆大学东方语言与文化研究系博士后研究员

Shared Understandings of an Inclusive Sustainable Future 共同理解包容可持续的未来

JY=金嘉懿 YC=张亦弛

YC: Your research has spanned a lot of fields; would you please introduce how do you undertake transdisciplinary research?

您的研究横跨多个领域，可否介绍一下您是如何进行跨学科研究的？

JY: As a trained architect, I am enthusiastic about a wide range of topics. My transdisciplinary spanning the fields of architectural theory, spatial morphology, digital technologies, social sciences and cultural studies. Currently I am the Principal Investigator for ‘Gender-inclusive Cities’, and one of the Co-Investigators

for ‘Community-based Engagement on Net-Zero (CEoN) - Developing a Grassroots Sustainable Futures Platform: Collective Participation in Community-Based Cultural Organisations’, these two projects were funded by Northumbria Seed Fund, Natural Environment Research Council (NERC) and British Academy.

作为建筑师，我对很多领域都非常感兴趣。我的研究主要横跨建筑理论、空间形态学、数字技术、社会科学和文化研究等领域。我现担任“性别包容城市”项目的首席研究员，同时也是“净零排放社区参与(CEoN)-建构基层未来可持续平台”项目的研究成员。这两个项目由诺森比亚种子基金、自然环境研究委员会(NERC)和英国科学院资助。

UK Research and Innovation (UKRI) is committed to supporting an enhanced culture of interdisciplinary and multidisciplinary research both in the UK and worldwide, so the number of different calls on interdisciplinary research increase each year. To propose an interdisciplinary (ID) research is definitely challenging, because it is likely to sit outside from your traditional configuration and challenges your normal academic structure. Meanwhile, this could be fruitful by accessing a new set of knowledge and observe one topic from a different perspective, which provides fresh viewpoints, cross-fertilisation, exchanges of methodology... In the current project on Community-based Engagement on Net-Zero (CEoN), it is our first time reaching out and collaborating with policymakers and the local pillar industry to apply knowledge and provide independent scientific advice on a localised net-zero transition. Although it took a long time to organise joint meetings to share insights and concerns from different stakeholders and make sure we speak the same ‘language’, many ideas that emerged from these talks were included in the next phase of project delivery.

英国国家科研与创新署(UKRI)致力于提升英国和世界范围内的跨学科和多学科研究，因此其对于跨学科研究的关注也逐年增加。提出跨学科(ID)研究无疑极具挑战，因为这很可能超出传统认知，冲击既有学术框架。但通过一套新的体系或视角考察问题，却又往往颇富成效，可以产生不同于以往的观点，或是相互借用研究方法，交互影响……在社区零排放项目中，我们就第一次与政策制定者和当地支柱产业合作，应用知识为本地化净零排放转型提供独立的科学建议。我们花了很长时间组织联席会议让不同人士分享观点和见解，以确保大家可以使用相同的“语言”进行交流，在会谈中产生的许多想法会在项目下一阶段有所建树。

It might be a good idea to search your topic from a range of ID research journals to find suitable outlets for your ID research ideas or which different discipline you want to celebrate with. Many schools may have their ID research groups to bring scholars together from diverse fields to develop ideas, or have internal mock panels that allow people to test out these ideas, and many universities in the UK have internal funding rounds for pilot studies. It could be helpful to make the most of any support provided, either through your network or the University. 通过跨学科研究期刊检视相关主题或学科可能会为跨学科研究提供帮助。许多学校都有自己的跨学科研究小组，将不同领域的学者聚在一起摩擦出火花，或是进行模拟演练测试想法。此外，英国的许多大学也有内部基金资助相关研究。充分利用这些网络和大学所提供的帮助会令你获益匪浅。

YC: You have conducted a number of architectural research works based on Human-Computer Interaction; how do you integrate Human-Computer Interaction with architectural research?

您曾经主导了多项基于人机互动的建筑研究，那么人机交互如何与建筑研究相结合？

JY: Before joining Northumbria, I was a Research Assistant at the Mixed Reality Laboratory (MRL), University of Nottingham for 18 months and engaged in several Human-Computer Interaction (HCI) projects. Ultimately, HCI can be treated as a human and artifact interaction, and HCI research is characterised by analysing human behaviour, cognitive processes and task structures faced by the users. At

MRL, my engagement in most HCI projects is around the museum sector and heritage sites, we accessed interaction levels of Human-Computer Interaction (HCI) with the aim of enhancing user experiences, analysed user interaction in a full cycle, then designed better ways to interact with exhibition modules according to the properties and behaviour of the users.

在加入诺森比亚大学前，我曾在诺丁汉大学混合现实实验室（MRL）担任过18个月的研究助理，参与了一些人机交互（HCI）项目。人机交互可以被视作人和机器间的互动，所以人机交互研究的特点在于分析人类行为、认知过程和用户面临的任務结构。在混合现实实验室，我主要围绕博物馆和遗产地展开人机交互研究。为提高用户体验，我们通过进入人机交互的交互层面，对用户的交互进行全周期分析，再根据用户属性和行为设计优化展览模块交互方式。

One of the most impressive projects from that experience is a practice-based research at Nottingham Castle, named ‘Riot 1831’ which aimed to enable exploration and artistic experimentation with the AR medium. I remember the first several months were spent exploring the storylines, researching the history, and developing the scripts, storyboards and initial prototype. The team at Nottingham Castle collaborated with the art and design researchers to develop the storylines and AR interpretation. The aim was not just to adapt the events during the rioting night in AR, but to understand the possibilities and constraints of a mixed-reality museum environment. As the storylines developed, the relationship between the AR medium and the museum object, and the telling of the story, became significant. The user interface (UI) and application user experience (UX) were designed and wire-framed, informed by feedback from the first round of testing. The second round of prototype testing was carried out in the gallery with real museum settings.

在众多项目中，最令人印象深刻的当属在诺丁汉城堡进行的一项名为“Riot 1831”的实践研究，旨在利用AR作为媒介进行探索和艺术实验。在该项目的最初几个月，我们主要探索故事情节、研究历史、开发脚本、展开情节和制作原型。故事情节和AR展示则由诺丁汉城堡团队与艺术和设计研究人员共同合作完成。除了利用AR演绎暴乱夜的内容外，还在于理解混合现实博物馆的环境可能性与制约性。随着故事情节的推进，AR媒介与博物馆对象间的关系，以及故事讲述，变得更为重要。在第一轮测试反馈的基础上，我们对用户界面（UI）和应用程序的用户体验（UX）进行了设计和线框，并在博物馆的真实环境中进行了第二轮原型测试。

Similar to other areas of Human-Computer Interaction (HCI), I feel spatial or architectural design needs to be aware of the characteristics of the context of use, which influence its suitability with the setting and the institution, adoption and appropriation of the technology, and user reactions. It’s a typical error to conceive of interactive technology for museums and heritage sites in isolation or to assume that HCI interaction in other settings, i.e. a classroom, can be directly adopted into the museum space without modification. Just like any other application context, we must be aware of user characteristics and motivations, user expectations, the physical context of use, the social context of

use, demands (or situational requirements), as well as organisational and socio-cultural issues related to museums as organisations and to the practice/field of museum management and curation (issues that include the ethos and mission of a museum, the visitor experience it aims to deliver, the digital expertise of museum professionals, etc.). I am also aware my experience in HCI is limited to the museum sector, there're many other great projects in MRL in the board architecture field like HCI and smart homes, smart city surveillance systems, building accountability, and even metaverse...I feel there are many ways to include HCI as a source of inspiration for academics, architects and urban planners who wish to incorporate or enhance user-centric designing or planning routines in their creative workflows.

与人机交互 (HCI) 的其他领域类似, 我觉得空间或建筑设计需要关注使用环境的特点。这些特点会影响到环境和机构适应性、技术采用、占有以及用户反应。经常出现的错误包括, 将博物馆或遗产地与互动技术彼此割裂, 或将其他环境中的人机交互, 如教室, 不加修改地直接挪用博物馆内。和其他应用环境一样, 我们必须考虑用户特点、动机和期望, 使用的物理、社会环境和需求 (或情景要求), 以及博物馆作为组织者或在管理策展实践/领域相关的组织和社会文化问题 (这些问题包括博物馆气质和使命、其所提供的游客体验以及博物馆专家的数字专业知识等)。我在人机交互方面的经验主要集中于博物馆领域, 但在MRL中还有其他许多优秀的项目, 如人机交互和智能家居、智能城市监控系统、建筑负责制, 甚至是元宇宙……我觉得人机交互可以在很多方面为学者、建筑师和城市规划师提供灵感来源, 使其在创造性工作中包含或加强以用户为中心的设计及规划。

YC: How do you adopt the approach of architectural design into urban design? 如何把建筑的设计手法运用到城市中呢?

JY: Either artificially designed or formed naturally overtime, a dialogue between an architectural object and the surrounding form of the city is necessary. I understand that architectural and urban design are based on one concept of space. Those patterns construct the language of design and are helpful in comprehending spatial relations in the city. When leading Master of Architecture studios, I always ask students to start their investigation in the neighbourhood, then at city scale, instead of searching for a bunch of architectural precedents they want to 'embed'. I believe the form of a city resulted from a global rather than from a particular approach to design; the city was seen as a consistent artifact full of inner richness, not just a random accumulation of independent elements. That mutual respect of both public and private realms, was based on an agreement and commonly accepted hierarchy and values, then the architectural treatment should respond to these accordingly, not the other way around.

无论是人工设计还是自然形成, 建筑与城市周边形式的对话都非常必要。建筑和城市设计都是以空间概念为基础。那些手法不仅构建了设计语言, 还有助于理解城市中的空间关系。在指导建筑学硕士设计时, 我经常要求学生从社区着手进行调查, 再由此拓展至城市尺度, 而不是寻找一堆他们想要“嵌入”的建筑案例。我认为, 城市的形式是由全球而不是由特定方法来设计; 因此城市应该被视作一个充满内在丰富性的人工制品, 而不仅是独立元素的随机堆砌。公共和私人领域的相互尊重, 是以共同接受的层级和价值体系为基础, 因此建筑也应该顺其发展, 而非逆势而为。

YC: Would you please give a brief introduction about your 'Gender-inclusive Cities' project? 可否简要介绍下您正主持的“性别包容城市”研究项目?

JY: The current Gender-inclusive cities research is inspired by a feminist reading of Michel de Certeau's work on urban space and narrative in 'The Practice of Everyday Life' (de Certeau, 1984), frames walking as an elementary method and embodied form of experiencing urban space. The proposed research seeks to fill the clear gap between policy and practice, intention and action, by showing why and how to incorporate gender inclusion into urban planning and design. It investigates gender walks as a possible method for knowledge-gathering for the (re-)planning and (re)design process with three objectives: 1) embedding gender-sensitive planning and design with the current on-going urban transformation at Newcastle to alter male walking symbols by adding female traits, and to increase gender-inclusive representation in urban design; 2) making streets safer and more accessible for women : avoiding hidden spots and dark areas by improving lighting, widening sidewalks, removing physical barriers to make sure that there are no deserted areas; 3) Setting an international research network with other scholars who are looking at practical approaches, activities, and design guidelines that show how to implement a participatory and inclusive design process that explores

the experiences and uses of the city from the perspective of all citizens.

目前的“性别包容城市”研究受到女性主义视角下对米歇尔·德塞都《日常生活的实践》(de Certeau, 1984)中关于城市空间和叙事工作的启发,从而将步行作为体验城市空间的基本方法和体现形式。该研究通过将性别包容纳入城市规划和设计中的原因和方法进行探讨以弥补政策与实践以及意图与行动间的不足。其运用性别走访作为方法收集(重新)规划和(重新)设计过程相关资料。该研究共有三个目标:一是将对性别敏感规划设计与纽卡斯尔正进行的城市改造相结合,通过增加女性特征改善男性步行符号,增加城市设计中的性别包容表征;二是通过改善照明、拓宽人行道、消除物理障碍,确保没有隐蔽点和黑暗区域,使街道对女性更安全、方便;三是与其他从事实务、活动和设计导则的学者共同构建国际研究网络,展示如何从全民视角出发探索城市的经验和使用实施具有参与性和包容性的设计过程。

YC: What's the difference between how men and women use the city?
男性与女性在使用城市时都有怎样的差别?

JY: While the situation differs from country to country, there's certainly a difference between how men and women access the city and interact with urban spaces. It wasn't until the 20th century to start normalising women's involvement in the city, growing inclusion in the public domain and then marking the massive shift of daily gender patterns in the city, defined by people's lifestyle, composed of the shifting societal views and expectations and individual ambitions. These contributed to an invisible demographic shift in cities, and led to the increase of women's involvement in the public sphere, no longer being confined to the private sphere of the household. However, even until now, I believe the form and structure of the contemporary city are still somehow threatening this advancement by perpetuating the "traditional" gender roles within society through the use of a city structure, which makes it difficult for women to balance the time between societal gender expectations and their aspirational opportunities spatially.

尽管各国情况殊异,但男女性进入城市及与城市空间互动的方式都有所不同。直至20世纪,女性才正常参与城市活动,公共领域的包容性也因之越来越大,并带来城市中日常性别模式的大规模转变。该转变由人们生活方式所决定,包括社会观点、期望和个人诉求的不断转变。这些都促成了城市中无形人口的变化,促使妇女不再局限于家庭的私人领域,而是更多地参与到公共领域之中。但直至今日,当代的城市形式和结构在一定程度上依然阻挠着这种进步。其通过城市结构的使用延续社会中的“传统”性别角色,导致妇女很难在社会性别期望和个人才华抱负间平衡时间。

This is very obvious, especially in places socialised by patriarchal or religious structures. In the summer of 2022, we conducted a week of workshops on 'Gender-inclusive Cities' in Cairo, collaborated with multiple colleagues from Cairo University Faculty of Engineering (CUFE) Architecture Department, UNWomen and Cairo Lab for Urban Studies, Training and Environmental Research (CLUSTER). Compared to the UK, Egypt seems to sit at the other end of the spectrum, it is now ranked 134th out of the 153 countries in the Global Gender Gap Index 2021, and Cairo is often referred as the world's most dangerous megacity for women. The recent discussions over the revival of neo-Lefebvrian discourses based on the right to the city is symptomatic of the gender neglect in most urban thought. And this neglect is especially obvious in the city of Cairo, where women continue to endure an unequal position when accessing the city, and they are still facing multiple social, religious, and legal discourses that support and legitimise gender inequalities.

这一点在父权或宗教统治的地方尤为明显。2022年夏天,我们与来自开罗大学工学院(CUFE)建筑系、联合国妇女署和开罗城市研究、培训和环境研究实验室(CLUSTER)的多位同事在开罗合作召开了为期一周的“性别包容城市”研讨会。相较英国而言,埃及似乎处于光谱的另一端。根据2021年全球性别差距指数,埃及在153个国家中位列第134名,因此开罗经常被称为世界上对女性最危险的都市。近期以城市权利为基础对新列斐伏尔话语复兴的探讨,指出多数城市思想都对性别问题关注不足。而在开罗,这种忽视则尤为明显,妇女在市内仍需忍受不公平的待遇,并要面对来自社会、宗教和法律的多重话语,而这些话语不仅支持性别不平等,还使其合法化。

My research team has worked closely with local community-based organisations and design agencies in implementing and perpetuating a strategic framework for urban planning. This will enable local women to have a wider range of access to their needs and opportunities, thereby enhancing their quality of life and potential

for social mobility. Our key takeaways so far are to increase awareness of gender-based inequalities at a local level - the inherent sexism and inequality have continued to thrive in many places for many years, leaving women and girls vulnerable and excluded from decision making regarding their own quality of life, but many people fail to recognise them in the first place. We need to step back more and see what is happening around us. Be more proactive than reactive. Then it is important to involve local intelligence and highlight how the public can take action to tackle the issues raised. In a long term, we hope to set up an international research network with other scholars who are looking at practical approaches to gender-sensitive planning via an appropriable and participative approach, in order to reduce spatial inequalities in cities.

我们研究团队通过与当地社区组织和设计机构密切合作，实施和延续城市规划的战略框架。这将使当地妇女获得更多帮助与机会，进而提高其生活质量和潜在的社会流动性。截至目前，我们的主要收获是在地方层面提升对于性别不平等的认识——对固有性别的歧视和不平等在许多地方盛行已久，使得女性处于弱势地位，并被排除于其生活质量圈决策之外。但是，很多人并没有意识到这一点。因此，我们需要退后一些，考察我们周围正在发生什么，同时也应更加主动，而非被动。在此基础上，我们再请相关部门介入，采用公众参与的方法解决问题。长远来看，我们希望与其他致力于采用适当参与方法进行性别敏感规划的学者一道建立国际研究网络，以减少城市空间的不平等。

YC: Would you please give a brief introduction about your 'CEoN' project?
可否简要介绍下您的“净零排放社区参与”研究项目？

JY: The second project Community-based Engagement on Net-Zero (CEoN) shares some similarities with 'Gender-inclusive Cities', like we used a range of participatory workshops to understand, explore and enable 'collective intelligence' in a specific context. Engaging with multi-stakeholders

like cultural organisations, networks and communities, as one key driver for this research is to create a suitable platform for information exchange and open discussion, which encompasses people, knowledge, learning and education. We hope different society sectors can be involved and participate in this conversation. We have developed a Toolkit for CEoN project with multi-stakeholders in 4 stages: System mapping (Co-learning); Scenario mapping (Co-knowledge); Synergy mapping (Co-creation); Strategy mapping (Co-production). This toolkit also consists of manuals, documents and templates to replicate the strategy in another location.

“净零排放社区参与”（CEoN）与“性别包容城市”有一些相似之处，比如我们都通过使用举办一系列参与研讨会的方式理解、探索“集体智慧”并将其放置于特定文本中。作为本研究的关键驱动力，文化组织、网络和社区等多重利益相关方的参与，为信息交流和公开讨论提供了适宜的平台，该平台包含了人、知识、学习和教育。我们希望不同社会部门都能参与进来，加入对话。我们已经为CEoN项目开发了一个工具箱，分四步与利益相关方合作：系统分析（共同学习），情景分析（共同知识），协同分析（共同创造），战略分析（共同生产）。该工具箱还包括手册、文件和模板，以便策略可在其他地方进行复制。

On the next stage, we are going to use this Toolkit to engage with local communities, planning authorities and environmental agencies in the coastal town of South Shields on climate risks and riverbank regeneration challenges it is facing. The aim will be to work towards a framework of urban design solutions including data collection, processing, modelling & visualisation, and see how these collective data will eventually contribute to the participatory planning and design scheme with multi-stakeholders.

下一阶段，我们将与南希尔兹沿海城市的当地社区、规划部门和环境机构合作，利用该工具箱解决其面临的气候危机和河岸复兴等问题。目标是建立一个包括数据收集、处理、建模和可视化在内的城市设计解决框架，并考察这些集体数据最终是如何促进多重利益相关方的规划参与和方案设计。✍

责任编辑 刘晓玲