TWIN2EXPAND

Working Group Studio – C

Summary report

twinning towards
research excellence
in evidence-based planning
and urban design

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1. Session A – Tuesday, June 27th

Theme: EBDP: Past, Present and Future: Seeing the bigger picture

The theme for this discussion is the trajectory of evidence-based methods over time and reflection on the effective use of these methods, past missteps, and untapped potential. Sub-themes include the evolution of data sources and analytic methods; how evidence is developed into models to inform action; and reflection on the future of evidence-based approaches.

1.1. Take outs from the seminar by **Stephen Marshall:**

The discussion centred on the intersection of science, urban sites, and evidence-based urbanism, aiming to stimulate critical thinking rather than offer conclusive answers. Key Discussion Points:

Historical Context:

- Ancient Greek philosophers like Socrates, Plato, and Aristotle underscored the importance of critical thinking and evidence in science.
- Chinese scholar Chen Pro contributed to city shaping through astronomy and magnetic compass orientation.

Contributions of Urbanists:

- Patrick Geddes emphasized understanding cities in wider contexts and complex systems.
- Jane Jacobs advocated for scientific rigor in urban planning, opposing pseudoscience.

Challenges in Urban Design:

- Lack of scientific validation in urban design theories and assumptions.
- Importance of understanding scientific basis for making informed decisions.

Emergence of Urban Science:

- Growing focus on using scientific methods to understand cities.
- Interdisciplinary field utilizing computational methods, data analysis, and AI.

Critique of Urban Science:

- Possibility of pseudo-scientific practices.

- Identified "seven deadly sins" including slow thinking and oversimplification.

Integration of Urban Science:

- Advocacy for integration with traditional urban knowledge.
- Potential to challenge and complement existing theories.

Conclusion:

The discussion highlights the necessity for urban science to avoid pseudo-scientific pitfalls and integrate with traditional urban knowledge. Moving forward, **experimentation and evidence-based** approaches offer promise for the future of urban design and planning.

1.2. Take outs from the seminar by **Mike Batty:**

The discussion delved into the transformation of urban analytics, design methods, and the integration of AI in decision-making processes, highlighting shifts in urban science and design paradigms. Key Discussion Points:

Transformation in Urban Analytics:

- Journal "Environment and Planning B" rebranded to "Urban Analytics and City Science."
- Emphasis on multiple sciences of the city, as opposed to a singular approach.

Evolution of Design Methods:

- Emergence in the 1960s to resolve conflicts influencing design.
- Introduction of methods for choosing weights, including linear, social network-based, and machine learning-based approaches.

Spatial Analysis and Conflict Resolution:

- Importance highlighted through overlay maps for conflict resolution.
- Introduction of the Markovian design machine for stakeholder conflict resolution.

Integration of AI in Design:

- Explanation of opinion pooling and averaging in neural networks.
- Importance of explaining outputs rather than solely predicting them.
- Challenges of overfitting, underfitting, and interpreting model weights discussed.

Role of AI in Decision-Making:

- Emphasis on evidence-based approaches and generating large datasets.
- Concerns regarding stakeholder reactions, trust in AI-generated solutions, and power distribution.

Pluralism in Modelling Approaches:

- Shift towards building multiple models and pluralism in modelling approaches.
- Example of space syntax illustrating debates arising from AI-generated scenarios.

Conclusion:

The discussion underscores the evolving landscape of urban analytics, design methods, and the integration of AI in decision-making processes. While AI offers potential benefits, challenges such as **stakeholder trust, power distribution, and model interpretation** must be addressed. Pluralism in modelling approaches reflects a dynamic shift in urban science paradigms, highlighting the ongoing exploration and adaptation of AI in urban planning and design.

1.3. Take outs from the seminar by **Phillip Steadman:**

The discussion encompassed various facets of urban design, architecture, and the integration of evidence-based methods, highlighting the complexities and challenges inherent in these fields. Key Discussion Points:

Exploration of Urban Morphology:

- Use of iconic models and the SpaceMate diagram to analyze urban morphology, density, and energy use.
- SpaceMate diagram utilizes floor space index (FSI) and ground coverage to represent urban forms.

Building Form and Energy Use:

- Relationship between density, building form, and energy use explored through 3D digital models.
- Analysis shows correlations between density, building height, and energy intensity.

Integration of Evidence-Based Methods:

- Challenges in translating research into practice and policy decisions.

- Importance of presenting research in understandable formats for practitioners and decision-makers.

Interdisciplinary Approaches:

- Recognition of the interdisciplinary nature of urban design, requiring integration with social science and urban science.
- Need for holistic approaches considering social, economic, and environmental factors.

Balancing Creativity and Scientific Analysis:

- Discussion on finding the balance between creativity and evidence-based methods in architectural education.
- Importance of a balanced approach in design processes and architectural education programs.

Collaboration and Practical Applications:

- Importance of collaboration between academia and industry for practical application of research findings.
- Challenges in translating academic research into real-world projects.

Conclusion:

The discussion underscored the significance of evidence-based methods in urban design and architecture, emphasizing the need for **interdisciplinary approaches** and collaboration between academia, industry, and decision-makers. Balancing creativity with scientific analysis and understanding the broader context of urban systems are critical for creating sustainable and meaningful spaces. As the conversation continues, there is a growing recognition of the importance of evidence-based approaches in shaping policy and design decisions, ultimately contributing to the development of more effective and inclusive urban environments.

2. Session B – Tuesday, June 27th

Theme: Space Syntax Lab: Evolution of evidence-based thinking for the built environment

This session looks at the application of analytical and cross-disciplinary methods in the study of the built environment at the Bartlett and reviews the emergence of Space Syntax as an academic programme and a research lab.

2.1. Summary of the evolution of evidence-based thinking in design and planning at the Bartlett – intro to space syntax lab by **Alan Penn:**

History and Evolution of Bartlett School:

- Established in 1849 at University College London, distinguished by its open and progressive approach.
- Directors like John Lynn Davis and Bill Hillier significantly influenced the curriculum, focusing on modernist principles and architectural research.

Space Syntax Research and Practical Applications:

- Originating in linguistic principles, space syntax research evolved to analyse urban spaces' functionality and social implications.
- Practical applications include analysing modernist housing estates and optimizing architectural designs, exemplified by the Kings Cross Project.

Interdisciplinary Collaboration and Technological Advancements:

- Collaboration with property developers like Stuart Lipton and Norman Foster showcased the practical application of space syntax in real-world projects.
- Development of computer-aided design (CAD) systems, such as Group Caps, revolutionized architectural modelling and analysis.

Influence on Architectural Education:

- Integration of evidence-based methods into architectural education, balancing intuitive training with analytical approaches.
- Challenges include effectively communicating the creative process and balancing visual aesthetics with functional design representation.

Role of Deans and Institutional Values:

- Deans play a crucial role in promoting interdisciplinary collaborations and shaping the school's educational direction.
- Emphasis on evidence-based and analytical approaches is growing, contributing to the school's growth and academic excellence.

Conclusion:

The seminar highlighted the rich history and evolution of the Bartlett School of Architecture, emphasizing its commitment to innovation, interdisciplinary collaboration, and

evidence-based design. Through space syntax research, technological advancements, and visionary leadership, the Bartlett has contributed significantly to architectural education and practice, shaping the future of the field. As architectural education continues to evolve, integrating intuitive creativity with analytical rigor will remain essential for nurturing visionary architects equipped to address complex urban challenges.

2.2.Summary of recent Space Syntax research into urban health by **Kimon Krenz**

Research on Built Environment and Health:

- Explanation of the built environment's influence on health, considering individual behaviour to global systems.
- Historical perspective, including 19th-century epidemiological mapping, emphasizes the relationship between built environment and health outcomes.
- Recent studies affirm space as a determinant of health, leading to research on walkability, social interaction, mental health, and child health interventions.

Current Research Projects:

- Analysis of built environment's impact on child health, spatial inequality, childhood obesity, healthy school environments, and access to early childhood education services.
- Investigation of air pollution's effect on respiratory diseases and the impact of moving to less-polluted areas on asthma episodes.

Impact on Policymaking:

- Research findings influence evidence-based design, informing the location of public amenities and improving public spaces to reduce antisocial behaviour.
- Collaboration with local authorities and institutions like the Bradford Institute of Health Research influences policymakers' perspectives on space-related issues.

Contributions and Collaborations:

- Involvement in various research initiatives, joint projects with UCL and other institutions, and participation in urban design and policy events.
- Membership in advisory boards and participation in the National Institute of Research for City Policy Research Unit demonstrate extensive involvement in policy research.

Discussion on Public Health, Planning, and Decision-Making:

- Exploration of issues such as the role of local authorities, ideologies in policymaking, and the influence of technology and evidence in decision-making processes.

- Examples from different countries highlight how political ideologies and interests may impact decision-making, despite evidence supporting alternative solutions.
- Challenges of integrating evidence-based approaches and rational justifications in decision-making, particularly in urban planning and development contexts.

Conclusion:

The research on the built environment's impact on health and policymaking demonstrates a comprehensive approach to understanding and addressing public health challenges. By conducting rigorous research and collaborating with stakeholders, Prof. Laura Vaughan, Dr. Kimon Krenz et. al. contribute to evidence-based design and inform policy discussions on urban planning and public health. However, challenges persist in translating research findings into tangible policy changes, highlighting the need for continued dialogue and advocacy for evidence-based approaches in decision-making processes.

3. Session C – Wednesday, June 28th

Theme: Evidence-based research adaptation in public policy: Lessons from the UK

In the context of recent developments in UK policymaking, this session discusses the strategies and challenges encountered when adapting evidence-based methods to planning and policy.

3.1. Summary of seminar on evidence-based policymaking by **Alan Penn:**

Introduction

- The speaker's appointment as Chief Scientific Advisor in the UK government's Department for Levelling Up: This introduces the main speaker and their role as the Chief Scientific Advisor, indicating that the talk will focus on evidence-based policymaking and collaboration within the government.
- The challenges of addressing regional inequalities caused by Brexit within a siloed government structure: This highlights the central issue that the talk will address - the difficulties in tackling regional disparities resulting from Brexit within a government system where different departments operate independently without much collaboration.
- Impact of austerity measures on public services, especially outside London and the southeast: This point explains how budget cuts and austerity policies have had a significant impact on public services, particularly in regions outside of the UK's capital city, London, and the southeast, leading to feelings of being left behind.

Evidence-Based Policymaking in a Siloed Structure

- The hindrance of siloed government departments in evidence-based policymaking: This elaborates on the challenges of a compartmentalized government structure, where individual departments tend to focus on their specific areas without considering the holistic nature of complex issues.
- The importance of cross-departmental collaboration and the need for strong evidence to justify budget allocation: This emphasizes the significance of collaborative efforts between different departments and the necessity of having robust evidence to support resource allocation decisions.
- The Troubled Families initiative as an example of the challenges and successful outcomes of cross-departmental efforts supported by evidence-based evaluations: This point presents a case study of the Troubled Families initiative, demonstrating both the difficulties and the positive outcomes that can result from cross-departmental collaboration based on evidence-based evaluations.

Fostering Evidence-Based Decision-Making

- The critical role of the Chief Scientific Advisor in promoting evidence-based decision-making and fostering collaboration between Whitehall departments: This underlines the importance of the speaker's position in encouraging evidence-based practices and facilitating cooperation between different government departments.
- The government's use of scientific advisory committees like SAGE during emergencies such as the COVID-19 pandemic: This highlights the government's reliance on scientific advisory committees during critical situations to make well-informed decisions.
- The receptiveness of medical and engineering crises to evidence-based decision-making due to existing cultures in those fields: This explains that certain fields, like medicine and engineering, have a culture of considering evidence, making evidence-based decision-making more prevalent in those areas.

Politicians and Evidence-Based Policymaking

- The variation in politicians' interest in and receptiveness to scientific advice and evidence-based policymaking: This section explores how different politicians may vary in their level of interest and openness to using scientific evidence in policymaking.

- Some politicians' fixations on particular ideologies and selective listening to evidence that aligns with their beliefs: This point highlights that some politicians may prioritize their own ideologies over objective evidence when making decisions.
- The prevalence of policy-based evidence, where data is sought to support predetermined policies instead of guiding policy formulation: This explains that, unfortunately, policymakers may sometimes seek data that aligns with their preconceived policies rather than letting evidence inform policy development.

Challenges and Commitment

- The challenges of crossing departmental boundaries in the government structure for effective evidence-based policy implementation: This discusses the difficulties faced in breaking down barriers between departments to implement evidence-based policies that require collaboration.
- The importance of committed individuals and long-term civil servants in achieving evidence-based policy outcomes: This emphasizes the crucial role played by dedicated individuals and civil servants in driving evidence-based policies forward.
- The influence of new ministers on evidence prioritization and policy preferences: This acknowledges that changes in government leadership can impact the prioritization of evidence and the direction of policies.

The Role of Analysts and Policy Reviews

- The crucial role of government department chief analysts in providing evidence to support policies and decisions: This section emphasizes the importance of analysts in generating and presenting data to inform policy decisions with evidence.
- The seriousness with which policy reviews are taken by both politicians and civil servants: This suggests that policy reviews are treated with significance and can have lasting effects on policymaking.
- The extended impact of policy reviews across different electoral regimes: This point explains that the outcomes of policy reviews can have implications beyond changes in government administrations.

Case Study: Michael Gove and Evidence-Driven Policies

- Examining Michael Gove's interest in evidence and data-driven policies related to leveling up: This section explores a specific example of a politician, Michael Gove, who has shown interest in using evidence to inform policies related to levelling up.

- Highlighting specific instances where metrics and evidence informed Gove's decision-making: This point provides concrete instances where evidence influenced Gove's policy decisions, demonstrating the impact of evidence-based practices.

Utilizing Evidence from Various Sources

- The speaker's approach to using evidence from diverse sources, including event speakers, to inform decision-making: This explains the speaker's strategy of incorporating evidence from various channels, such as events and guest speakers, to make well-informed decisions.
- Identifying connections between different policy areas through evidence-based practices in planning and policymaking: This elaborates on how evidence can be used to identify relationships and connections between different policy areas, leading to more effective planning and policymaking.

Conclusion and Call to Action

In conclusion, the discussion underscored the paramount importance of evidence-based decision-making and collaborative efforts in tackling regional inequalities. It reiterated the essential message of utilizing evidence and fostering collaboration across departments to effectively address these disparities. There's a clear call to action for bridging the gaps between departments to ensure a cohesive approach towards addressing regional inequalities. Moreover, there's an urgent plea for policymakers to prioritize evidence-based policymaking, recognizing its pivotal role in achieving better policy outcomes. By committing to evidence-driven decision-making, policymakers can pave the way for more equitable and sustainable policies that benefit communities at large.

3.2. Summary of seminar by **Eleri Jones** on adaptions of EBDP in public policy

Importance of Evidence-Based Urban Planning and Design

- Emphasizes the need for evidence-based methodologies in urban planning and design, similar to evidence-based medicine: This point highlights the significance of using rigorous research and data-driven approaches to inform urban planning and design decisions, drawing a parallel with evidence-based practices commonly used in medicine.
- Describes a project focusing on developing an evidence-based approach to urban planning to improve city life: This section introduces the focus of the talk, which is a specific project that aims to create a new approach to urban planning and design

based on evidence and input from stakeholders. The goal is to enhance the quality of life in cities through data-driven decision-making.
- Highlights the significance of a holistic approach considering multiple elements like connectivity and sustainability: This underlines the need for a comprehensive approach that takes into account various factors, such as transportation connectivity, accessibility, and sustainability, to create vibrant and sustainable cities.

Challenges and Approaches in Evidence-Based Urban Planning

- Discusses the challenges of integrating different sectors and objectives in urban planning: This points out the difficulties in coordinating efforts across various government departments and stakeholders, as each may focus on their specific objectives without considering the broader context of urban planning.
- Introduces the concept of "15-minute cities" and the use of evidence-based design codes: This section introduces innovative concepts like "15-minute cities," where people can access all their daily needs within a 15-minute walk or bike ride and highlights how evidence-based design codes are being utilized in urban planning to inform regulations and requirements for different areas, incorporating local knowledge and data.
- Explores the potential of visual cues and provably popular design concepts for urban development: This discusses the use of visual cues and design elements that have proven to be popular among the public as a strategy to gain public acceptance for urban changes and development projects.

Implementing Evidence-Based Planning

- Outlines the approach to evidence-based planning involving data gathering and analysis from various sources: This section describes the methodology of evidence-based planning, which involves collecting and analysing data from diverse sources to inform decision-making in urban planning projects.
- Addresses tensions between evidence-based approaches and political influences: This acknowledges the potential conflicts that can arise between evidence-based decision-making and political influences, and how policymakers need to navigate these challenges to ensure good decision-making.
- Considers the impact of funding and resource availability on evidence-based planning initiatives: This point highlights that the successful implementation of evidence-based planning projects can be influenced by the availability of funding and resources.

Evidence-Based Decision-Making in Urban Planning (Case Studies)

Presents case studies on evidence-based policy making and impact:

- Future Cities Project: This project ran between 2013 and 2016, aiming to influence the Prime Minister and No. 10 Downing Street. The measure of success was getting references to the project in high-level speeches and documents, showcasing its impact on policy discussions at the highest level of government.
- Milton Keynes 2050 Initiative: This project focused on creating a strategic plan for the next 50 years of Milton Keynes. Its impact was the acceptance and approval of the plan, resulting in the implementation of several projects to shape the city's future.
- Active Travel Explorer: This project developed a tool to remove technical barriers and enable different departments to share data for coordinated strategies related to active travel. The impact was the tool's adoption and use by officials to support the development of active travel schemes, promoting sustainable transportation solutions.
- National centre of Excellence: This project, funded by the Department for Science, Innovation, and Technology, involved 24 universities to synthesize research projects and create a cohesive impact. Its goal was to harness the collective expertise to drive evidence-based decision-making across multiple areas.

Overall, the case studies demonstrate the application and impact of evidence-based approaches in urban planning and policymaking. They highlight successful projects that have influenced policies, guided long-term strategic plans, enabled data-driven decision-making, and synthesized research efforts to create meaningful impacts. The examples emphasize the importance of understanding specific project goals, measuring success, and fostering collaboration between researchers and policymakers to achieve effective evidence-based decision-making in urban planning.

3.3. Summary of the seminar by **Francesca Froy** on challenges of evidence-based policymaking

Introduction and Background

- Francesca's background in both policy and academia, representing space syntax, a company bridging the gap between research and policy: Francesca's unique background gives her valuable insights into both the academic and policy worlds, allowing her to effectively communicate and translate research findings into actionable policy insights through her work with space syntax.

- The importance of building trust and credibility when presenting evidence to policymakers, drawing on experience with international organizations and national/local

governments: Francesca emphasizes that policymakers rely on evidence they can trust when making decisions. By drawing on her experience working with international organizations and governments, she understands the importance of credibility in persuading policymakers to consider academic research in their decision-making processes.

- The value of international comparative research in supporting local policy development, and the challenge of converting academic research into clear communications for policymakers: Francesca highlights the significance of international comparative research to understand successful urban development and economic policy practices worldwide, which can then be applied to local contexts. She also acknowledges the challenge of presenting complex academic research in a clear and concise manner that policymakers can easily understand and use in their work.

Thought Leadership in Academic Research

- Emphasis on thought leadership when conveying academic research to policymakers: Thought leadership involves presenting innovative ideas and concepts that challenge existing norms and offer new perspectives on urban development and economic policy. By adopting a thought leadership approach, Francesca aims to introduce novel and transformative ideas to policymakers, encouraging them to consider innovative solutions in their policy decisions.

Using Qualitative Messages for Policymakers

- Suggestion to use qualitative messages alongside quantitative data and mapping to communicate the spatial configuration of cities and its influence on economic activities: Francesca suggests that policymakers may be more receptive to qualitative messages that present the real-life implications and experiences of urban design and spatial configurations, rather than solely relying on data and technical maps. Qualitative messages can provide context and narrative that resonate with policymakers, making the information more accessible and relevant.

Considering Multiple Scales in Urban Development

- Advocacy for multi-scale thinking in urban development and economic activities: Francesca stresses the need to consider multiple scales when planning cities and formulating economic policies. Cities are intricate systems with interactions occurring at various levels, including the neighbourhood, city, and regional levels. Policymakers must grasp these interconnected scales to make informed decisions that address diverse urban challenges.

Movement of Ideas and Goods

- Importance of considering not only the movement of people but also the movement of ideas and goods in cities: Francesca highlights that urban development and economic activities involve not only the physical movement of people but also the exchange of ideas and goods. Understanding how knowledge and goods flow within cities and how spatial

configurations support economic activities is essential for policymakers to promote sustainable and efficient urban environments.

Linking Urban Morphology and Economic Policy

- Focus on exploring the link between urban morphology and economic policy: Francesca's research aims to investigate how the physical layout and structure of cities impact economic activities. By understanding this link, policymakers can devise targeted policies that enhance economic growth and efficiency within cities.

Challenges in Impacting Policy

- Identifying challenges in translating academic research into policy impact: Francesca acknowledges that converting academic research into actionable policy insights can be challenging. Policymakers often require user-friendly evidence that is concise and directly applicable to their decision-making processes. Additionally, there may be a lack of a consistent evidence base for the impact of space syntax activities, which can hinder policy adoption.

Bridging the Gap between Academia and Policy

- Francesca's work aims to bridge the gap between academia and policy by engaging with policymakers and providing insights from academic research: Francesca actively seeks to collaborate with policymakers and provide them with relevant insights from academic research. By building relationships and communicating research findings effectively, she aims to enhance the relevance and application of academic research in real-world policy-making processes.

Overall, Francesca's talk underscores the importance of effectively translating academic research into actionable policy insights. She advocates for thought leadership and qualitative messaging to engage policymakers and promote innovative urban development and economic policy solutions. Her work at space syntax seeks to bridge the gap between academia and policy by providing user-friendly evidence and building a consistent evidence base to impact policy decisions positively.

4. Session D – Wednesday, June 28th

Theme: EBDP in practice – Challenges of scaling up

This panel provides an opportunity to hear from practices in the UK who have developed evidence-based research capabilities to aid designers and planners with reasoning and evidence. Potential themes include the implementation of evidence-based methods, challenges encountered, and ways in which EBDP can achieve wider impact in the design and planning community.

4.1. Summary of evidence-based planning practice by Atakan Guven (ERA co.)

Introduction and Background

- Scheduling and Planning: The participants discuss the importance of effective scheduling and planning for future events or meetings. This includes practical considerations such as booking flights and hotels for travel, organizing conference calls, and preparing presentations for meetings.
- Project Introduction: The participants introduce themselves and provide background information about their involvement in the project. They mention their roles and affiliations, highlighting their expertise in space syntax, evidence-based design, and urban planning. They may also discuss the specific objectives and goals of the project they are working on.
- Collaboration and Sharing: The participants emphasize the collaborative nature of the project and the importance of sharing knowledge and ideas among team members. They may talk about how working with different partners and organizations enhances the project's overall approach and allows for the integration of various analytical findings into design and planning processes.

Business Development and Superspace History

- Business Development: The participants discuss the establishment of the startup "Herrera" within a larger holding company. They explain the challenges and goals of the startup, which focuses on translating analytical data into understandable and communicable information for developers and planning bodies. They may discuss their business strategies, target market, and the unique value proposition of their services.
- History of Superspace: The participants provide insights into the history of Superspace, an analytical department that was absorbed by Woods Bagger from ADAS. They may discuss the context of the acquisition, the scope of Superspace's work, and the expertise they brought into the larger organization. Additionally, they may share specific projects that Superspace was involved in, particularly in Australia and China.

Analytical Team, Decision-making Challenges, and Integration of Design and Evidence

- Analytical Team and Role: The participants delve into the role and composition of the analytical team within Herrera. They may discuss the team's expertise in data analysis, spatial modelling, and evidence-based design. They may also talk about their

involvement in various projects and how their analytical insights contribute to the design process.
- Challenges in Decision-making: The participants discuss challenges in the context of evidence-based design and how they navigate these challenges. This could include the potential for bias in the design process and how they ensure transparency and objectivity in decision-making. They may also talk about how they incorporate evidence and analysis into the design process to make informed decisions.
- Integration of Design and Evidence: The participants emphasize the importance of integrating evidence and analysis into the design process to create more successful and responsive urban designs. They may discuss specific projects where evidence-based design played a crucial role in addressing urban challenges and meeting design objectives. The integration process involves considering both short-term and long-term impacts of design decisions, taking into account urban fundamentals, and incorporating the perspectives of different stakeholders to achieve well-rounded design solutions.

Evidence-based Design Guidelines and Best Practices

- Establishing a Centralized Repository: The participants discuss the idea of creating a single, centralized repository of evidence-based urban design guidelines and best practices. Such a repository would be shared with clients and stakeholders to support decision-making. They may talk about the challenges and benefits of consolidating this information into one accessible platform.
- Validation and Verification of Analytical Models: The participants highlight the importance of validation and verification of analytical models and simulations. This process ensures that the analytical tools accurately represent real-world scenarios and deliver reliable results. They may share how they validate their models and data to ensure the accuracy and robustness of their findings.
- Open-source Tools and Collaboration: The participants explore the potential for open-source tools and collaborative efforts among researchers and practitioners to improve the accessibility and usability of evidence-based design tools. They may discuss the advantages of sharing resources and knowledge through open-source platforms and how it can contribute to the advancement of evidence-based design practices.

Conclusion and Key Takeaways

- The Importance of Evidence-based Design: The participants emphasize the significance of evidence-based design in addressing urban challenges, creating

sustainable environments, and improving the relationship between buildings and the surrounding urban context. They may highlight specific examples where evidence-based design has led to successful urban solutions and better overall urban outcomes.

- Collaboration and Transparency: The participants discuss the importance of collaboration between architects, urban planners, and other stakeholders to incorporate evidence and analysis into design proposals. They may emphasize the value of transparent and inclusive decision-making processes that involve various stakeholders and ensure everyone's perspective is considered in creating successful urban solutions.
- Challenges and Opportunities: The participants acknowledge the challenges in implementing evidence-based design, such as effectively communicating complex analytical findings to non-experts, balancing top-down and bottom-up decision-making approaches, and addressing biases in the design process. They also highlight the opportunities for open-source tools, knowledge sharing, and interdisciplinary collaboration to advance evidence-based design practices and achieve better urban outcomes.

Overall, the elaboration of the points highlights the complexities and opportunities in evidence-based design. The integration of evidence and analysis into the design process, collaboration among different stakeholders, transparency, and validation of analytical models are essential for creating successful and sustainable urban solutions. Challenges in effectively communicating data to non-experts and the importance of transparent and inclusive decision-making processes are addressed. The participants emphasize the significance of evidence-based design in addressing urban challenges and achieving better overall urban outcomes. They also highlight the potential of open-source tools and interdisciplinary collaboration in advancing evidence-based design practices and achieving better urban outcomes. The importance of validation and verification of analytical models is discussed as a way to ensure the accuracy and reliability of research findings. Additionally, the benefits of establishing a centralized repository of evidence-based design guidelines and best practices are highlighted for supporting decision-making and knowledge-sharing among stakeholders.

4.2. Summary of seminar by Esther Kurland on evidence-based planning pipeline

Effective Communication and Language

- Use of Multiple Discourses: Effective communication requires tailoring the language and discourse used when conveying research findings to different audiences. Academic

discussions may require precision and technical terms, while policymakers and the general public might find easily understandable and relatable language more effective.

- Balancing Simplicity and Precision: Striking the right balance between simplicity and precision in language is essential. While avoiding jargon is crucial, it is equally important to convey complex ideas accurately. This can be achieved by using terms that are familiar to the target audience without oversimplifying the underlying concepts.

Challenges and Approaches in Measuring Impact

- Challenges of Measuring Impact: Measuring the impact of academic research and interventions in space syntax poses challenges due to various confounding factors and complexities in real-world scenarios. The long-term nature of urban development projects and the involvement of multiple stakeholders further complicate impact assessment.

- Evidence-Based Design: Policymakers often prefer evidence-based design that is supported by rigorous research and proven to be effective. Developing a strong evidence base to back space syntax interventions can enhance their impact on policy and urban planning decisions.

Standardization and Knowledge Exchange

- Standardization of Terms: To facilitate communication and understanding among different stakeholders, standardizing terms and definitions is recommended. This reduces confusion and ensures that everyone involved in the discourse is on the same page, promoting more effective knowledge exchange.

- Benchmark Datasets and Consistency: Having benchmark datasets and using consistent units of analysis allows for the replication of studies and comparisons of results. This approach increases the rigor and reliability of research findings, enhancing the credibility of evidence-based design.

- Establishing a Shared Space for Discussions: Creating a platform or space for academics and practitioners within the Space syntax community to discuss challenges, methodologies, and outcomes can facilitate knowledge exchange. This collaboration can lead to better integration of research findings and more impactful policy decisions.

System Thinking and Mechanism

- Comparing Cities at Neighbourhood Level: Cities are diverse, and neighbourhoods within them can be as distinct as cities themselves. To address this challenge, developing comparative datasets at the neighbourhood level across multiple cities allows for a more comprehensive understanding of urban development patterns.

- Mechanism and Systems Thinking: Incorporating mechanism and systems thinking into urban design discussions is essential to understand the relationship between urban form and various outcomes, such as economic, health, social, and environmental impacts. This

holistic approach ensures a more comprehensive analysis of the interconnected elements within urban systems.

- Widening the Discourse: Expanding the conversation beyond GIS-based data to include mechanism, urban form, and systems thinking can lead to more comprehensive and impactful research in the field. By incorporating multiple perspectives and approaches, research findings become more applicable to real-world policy and planning.

Impact on Policy and Interdisciplinary Collaboration

- Interdisciplinary Collaboration: Collaboration between space syntax practitioners and experts from other disciplines, such as economics and urban planning, is seen as essential to integrating research findings and influencing policy effectively. Different disciplines bring unique insights that contribute to more holistic and well-rounded policy decisions.

- Impact on Policy: The goal of academic research in space syntax is to influence policy and urban design decisions positively. By providing clear policy briefs and evidence-based design, academics can contribute to more informed and effective policymaking, leading to better urban development outcomes.

The overall talk emphasizes the importance of effective communication, interdisciplinary collaboration, and consideration of systems thinking in evidence-based design to enhance the impact of academic research in policy-making and urban planning. By addressing challenges in measuring impact and fostering knowledge exchange within the community, academics can contribute to evidence-based decision-making and shape more sustainable and efficient urban environments.

5. Session E – Thursday, June 29th

Theme: Space Syntax limited. Scaling up from academia

This session brings together the members of Space Syntax limited for a quick review of recent advancements through projects and a discussion on the challenges of shaping a science-based practice, and how to develop the culture of evidence-based approaches in planning and design practice.

5.1. Summary of the presentations from SSL, **Tim Stonor, Ed Parham, Oscar McDonald:**

Urban Design and Evidence-Based Decision-Making:

- Importance of evidence-based approaches: The conversation emphasizes the significance of using empirical data and research findings to inform urban

planning and design decisions. This involves considering factors such as spatial analysis, density considerations, and the impact on social, economic, and health factors.
- Challenges in scaling evidence-based strategies: While evidence-based approaches are valued, participants acknowledge the difficulties in applying these strategies universally across different cities and contexts. Factors such as local policies, cultural differences, and economic interests can influence the effectiveness of design interventions.
- Integration of research, spatial analysis, and design principles: There's a consensus on the importance of integrating research findings, spatial analysis techniques, and design principles to create successful urban environments. This involves synthesizing evidence from various sources to develop effective design strategies.
- Ethical considerations: The conversation touches on the ethical implications of presenting evidence and influencing stakeholders in urban design projects. There's a discussion about maintaining honesty and integrity in conducting analyses and ensuring that design decisions are based on sound evidence rather than personal biases or preferences.
- Impact assessment and evaluation: Evaluating the impact of design scenarios on factors like economic viability, social dynamics, and environmental sustainability is crucial for informing decision-making. This involves assessing the effectiveness of different design options and understanding their trade-offs to achieve desired project goals.

Collaboration and Engagement:

- Collaboration with stakeholders, academia, and clients: Participants highlight the importance of collaboration with various stakeholders, including academic institutions, government agencies, and community organizations. This collaboration involves sharing expertise, resources, and data to develop holistic solutions to urban challenges.
- Challenges in navigating bureaucratic processes and intellectual property rights: There's recognition of the bureaucratic challenges associated with collaborating between academia and business, particularly in managing intellectual property rights and negotiating agreements. This requires clear communication and understanding of legal frameworks.
- Engagement with academia for research and training initiatives: The conversation reflects on the company's history of collaboration with academia for research projects and training initiatives. This engagement helps bridge the gap

between research and practice and ensures that urban design strategies are based on the latest scientific knowledge.
- Balancing interests and negotiating agreements: Collaborative projects often involve balancing the interests of different stakeholders and negotiating agreements to ensure that all parties benefit from the partnership. This requires effective communication, compromise, and a shared vision for project outcomes.

Business Operations and Ethical Implications:

- Challenges in business operations: Participants discuss various challenges in running a business in the field of spatial analysis and design, including financial stability, cash flow management, and balancing different aspects of the business. Despite these challenges, there's a sense of fulfilment derived from meaningful projects with positive impacts.
- Ethical considerations in conducting analyses: There's a consensus on the importance of maintaining ethical standards in conducting analyses and presenting findings. This involves honesty, transparency, and integrity in representing data and ensuring that design decisions are ethically sound.
- Impact and satisfaction derived from meaningful projects: Despite the challenges, participants express satisfaction and joy in seeing projects come to fruition, particularly those that have a positive impact on the built environment and contribute to the well-being of communities.
- Managing intellectual property and navigating data sharing agreements: The conversation touches on the complexities of managing intellectual property rights and navigating data sharing agreements with clients and partners. This requires careful negotiation and understanding of legal frameworks to protect the company's interests while fostering collaboration and knowledge sharing.

Digital Initiatives and Training:

- Development of digital tools: Participants discuss the importance of digital tools for spatial analysis and visualization in urban planning and design projects. These tools facilitate data analysis, scenario modeling, and communication with stakeholders, enhancing the efficiency and effectiveness of the design process.
- Training initiatives: The company offers professional training courses aimed at practitioners and professionals in urban planning and design. These courses cover topics such as space syntax, GIS, and interconnected places, providing opportunities for lifelong learning and skill development.
- Utilization of open data initiatives: The conversation touches on the company's involvement in open data initiatives, particularly in the context of mapping data for the UK. While open data offers benefits for research and analysis, there are challenges in managing data boundaries and ensuring data accuracy and reliability.

Overall, the conversation highlights the multifaceted nature of urban design practice and the importance of collaboration, ethical considerations, and ongoing training and development in navigating the complexities of the field.