

Wei Yang

Abercrombie Lecture

Spatial planning reimagined: rekindling the founding spirit for the future

This paper reviews the lifetime achievements and unrealised visions of Sir Leslie Patrick Abercrombie to stimulate discussions on the unprecedented challenges and opportunities facing the field of spatial planning. By revealing the founding spirit of the profession – compassion, selflessness and creativity – the author argues that the need for change is both external and internal. Thus, planners need to make behavioural changes within the profession to meet the demands of the future. The paper outlines various actions and strategies for the systemic transformation of spatial planning, including rebuilding the creativity and civic support pillars, equipping planners with adequate capabilities and skills and implementing methodological changes. Additionally, the paper introduces the vision of the newly formed Digital Task Force for Planning, which aims to harness the power of digital technology and scientific innovation to modernise the profession. Ultimately, the paper encourages planners to be proactive in adapting to a rapidly changing world and to pave the way for a more confident, creative and impactful profession for the future.

Keywords: spatial planning, grand challenges, human nature, systemic transformation, methodological changes, digitalisation, Digital Task Force for Planning

Introduction: to be enlightened by the history

Sir Leslie Patrick Abercrombie (1879–1957) was a world-famous authority on town and country planning in the twentieth century. Today, he is still one of the most well-known town planners in Britain. What fascinates me most about his lifetime achievements is his unique career path – an inspirational, impactful, and flourishing journey. His ability to bridge planning practice and teaching was a distinctive strength that set him apart from his peers in the field. The Abercrombie Lecture series celebrates his life and work while also providing an opportunity for us to reflect on his spirit and that of other planning pioneers and chart a course for the future.¹

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This paper is structured into four parts. The first part focuses on the inspirational life of Abercrombie, as well as his legacy and unreleased visions. The second part discusses the legitimacy of a reimagined spatial planning and the importance of rekindling the founding spirit of the profession. The third part explores the necessary actions and methodological changes required to enable a systemic transformation of spatial planning. In the fourth part, I introduce the Digital Task Force for Planning and its ambition to harness the power of digital technology and scientific innovation in advancing spatial planning. The paper aims to inspire planners to proactively transform the profession to meet the demands of a rapidly changing world and tackle the grand challenges while creating a better future for everyone.

Sir Patrick Abercrombie: his inspiration, legacy and unrealised visions

Abercrombie's inspirational lifetime achievements

Abercrombie's career path perfectly aligned with the development of planning as a profession. Indeed, he was one of the pioneers who were instrumental in shaping it (Wright, 1982). Having been trained as an architect through apprenticeship from the age of 18 (Hall, 1995), Abercrombie was appointed as a junior lecturer at University of Liverpool School of Architecture in 1907. He also lectured at the newly formed Department of Civic Design within the School of Architecture from 1909 and became a research fellow in the department (Holford, 1957). In 1910, at the age of 31, Abercrombie became the first editor of *Town Planning Review*. Through his writings and his editorship of the journal, Abercrombie established himself as the most celebrated academic planner of his generation (Hall, 1995). He was appointed the second Lever Chair of Civic Design at Liverpool University at age 36 (Wright, 1982). In 1933, he published *Town and Country Planning* (Abercrombie, 1933), a book that was based on his lectures and served as a summary of his ideas. He later moved to University College London (UCL) as Professor of Town Planning and retired in 1946 (Holford, 1957).

Simultaneously, Abercrombie's planning practice flourished after winning the 1914 competition for the re-planning of Dublin (Wright, 1982). He soon established his reputation as a consultant with a speciality in regional planning. He was a faithful follower of Sir Ebenezer Howard, and an advocate of Sir Patrick Gaddes's precept of 'survey-before-plan' (Hall, 1995). During the interwar period, Abercrombie produced pioneering major regional plans for Doncaster and District, East Kent coalfield, Suffolk, Sheffield, Cumbrian Region, and Bath and Bristol (Dix, 1981). Remarkably, Abercrombie brought his latest practical examples 'into every lecture he did' (Stephenson, cited in Wright, 1982, 134). These plans also paved the way for Abercrombie to be the obvious choice for the regional plans for Greater London,

which made him a national household figure of planning and achieved international fame for him. Around the same period, he teamed with different partners to draw up plans for the City and County of Kingston upon Hull, Plymouth, Edinburgh, the Clyde Valley, Warwick and the West Midlands Region. He also took international commissions from Addis Ababa, Hong Kong and Cyprus (Dix, 1981).

Throughout his life, Abercrombie generously devoted his time to civic bodies. He was a founding member of the Town Planning Institute (TPI) formed in 1914, now the Royal Town Planning Institute (RTPI), and became its president in 1925. He was instrumental in founding the Council for the Preservation of Rural England (CPRE) in 1926 (Dix, 1981), and later became its chairman until his death in 1957 (Holford, 1957). Abercrombie also served on the council of the Town and Country Planning Association (TCPA) and was president of the Geographical Association in 1936. During the last several years of his life, he devoted a significant amount of time to form the International Union of Architects (UIA), which was established in 1948, and served as its first president (Holford, 1957).

Abercrombie's legacy in town and country planning

The development of a practical urban–rural integrated regional approach was Abercrombie's finest contribution to planning – the hallmark of his teaching and practice (Childs in Abercrombie, 1959). Abercrombie believed that planning practice should not be limited to authorities' administrative boundaries. A logical way to conduct evidence-based 'civic planning' is to consider from a regional scale, and thus, 'the linking up of regions suggests some form of national planning' (Abercrombie, 1933, 110).

Abercrombie's regional approach to planning was also reflected in his strong advocacy for rural planning and the protection of countryside. In 1925 when Abercrombie was president of TPI, he joined forces with Guy Dawber, president of the Royal Institute of British Architects (RIBA), to urge the government to prevent urban sprawl in rural areas (CPRE, 2023a). In 1926, Abercrombie published 'The preservation of rural England' in *Town Planning Review* (Abercrombie, 1926), proposing the basis for the town and country planning system, and also calling for a bold and wide policy for the creation of a series of national parks to preserve 'wild country' (Wright, 1982). In December 1926, Abercrombie became the honorary secretary of the newly formed CPRE. He played a key role in supporting CPRE's campaign for green belts, which aimed to stop urban sprawl and provide fresh produce close to urban markets (CPRE, 2023a).

In 1929, Abercrombie gave evidence to the government's National Parks Committee, where he emphasised the need to prioritise accessibility by the public and the potential recreational value for the young. These recommendations were endorsed

by the government in the relevant legislations after the Second World War. The Town & Country Planning Act of 1947 allowed local authorities to propose green belts in their development plans, and The National Parks and Access to the Countryside Act of 1949 created an accessible network of protected landscapes for the public to enjoy (CPRE, 2023b).

In the 1940s, planning was considered crucial to Britain's post-war reconstruction efforts, serving both as a means of physical reconstruction and a mechanism for addressing social issues such as housing, education, healthcare and social inequality (Wannop and Cherry, 1994; Essex and Brayshay, 2005). Abercrombie's regional planning approach was demonstrated in the County of London Plan (Forshaw and Abercrombie, 1943) and the Greater London Plan 1944 (Abercrombie, 1945), which are widely considered to be the most famous examples of his work in planning.

Abercrombie's unrealised visions

However, despite being a highly influential and authoritative figure in regional planning, some of Abercrombie's most famous regional plans faced significant obstacles in realising his visions. For example, his Plan for Plymouth (Paton Watson and Abercrombie, 1943) is often praised as a fully implemented masterplan for rebuilding the bomb-damaged Plymouth city centre. However, its broader goal of serving as a regional plan for southwest Devon and southeast Cornwall was never realised (Essex and Brayshay, 2005; 2007) due to 'vested interests, jealousies and deeply embedded attachment to local autonomy [which] impeded all attempts to achieve successful cooperation'. Similar challenges (Garside, 1989) also occurred in the implementation of the Greater London Plan 1944.

The difficulties encountered in realising regional planning goals led to a collapse of faith in this approach by the government, and it was abandoned entirely in the Town & Country Planning Act of 1947, despite decades of advocacy by planning pioneers such as Ebenezer Howard, Thomas Adams and Raymond Unwin (Essex and Brayshay, 2005; 2007). This piece of history underscores the fact that even during the height of planning's popularity, conflicting interests and differing levels of acceptance were significant factors in influencing policy decisions.

Reflections of planning practice in 1950s and its impact today

In 1959, two years after Abercrombie's passing, D. Rigby Childs updated *Town and Country Planning* (Abercrombie, 1959) and republished it as a third edition. Childs also added a section summarising 'the First Half-Century of Planning' (Childs in Abercrombie, 1959). In this section, he noted that during the 1940s and 1950s, the

combination of ‘concentration on administrative practice and planning’, and a ‘lack of building development’ resulted in a general disillusionment with town planning (Childs in Abercrombie, 1959, 271). He further highlighted the neglect of six fundamental areas in planning:

An almost complete absence of regional planning; the complete absence of a national planning approach; the tendency to neglect long-term planning; administrative machine has concentrated on formal paper planning; research on the scale adopted in industry, science and other spheres has been conspicuous by its absence; agriculture is neglected. (Childs in Abercrombie, 1959, 272–73)

Childs also argued:

When it is a positive force, town planning is a creative activity; and so people hoped during the early post-war years. But in this period town planning, in the popular view, became a negative force; planning was essentially an administrative hurdle which had to be got over; it was no longer a guiding umbrella under which activities could be directed. (Childs in Abercrombie, 1959, 271)

While perusing these comments from over six decades ago, I am struck by their remarkable resemblance and connection to the contemporary challenges facing the planning profession in England. Decades of misunderstanding, and a lack of will and funding to support the profession’s advancement have resulted in a deficit of planning capability and skills. As a result, many relevant innovation and technological advancements have not been integrated into mainstream planning practice and education. For example, in the past two decades, data and digital technology have revolutionised commerce, driven by e-commerce giants with data-driven supply chains and personalised products. However, spatial planning has lagged in embracing this digital revolution, resulting in slow and fragmented integration and limited cross-disciplinary progress. The potential of big data to understand community needs and optimise the functioning of cities, towns and villages remains untapped. Additionally, despite significant advancements in scientific research on climate change, environmental and ecological decline, these findings have not been effectively integrated into planning and decision-making processes, leading to missed opportunities and delayed actions. All these lead to further marginalisation of the profession in various aspects.

Through introspection and self-critique, we can uncover that the planning profession has become entangled in a complicated legislative and bureaucratic system over time. Comparing it to the visionary and practical solutions exemplified in the approach of pioneers, such as Howard, Adams and Unwin, it is evident that the planning profession has significantly deviated from its intended trajectory decades ago.

This deviation can be observed through Abercrombie’s description of the main objects and direction of planning practice. Abercrombie (1933, 103–4) noted

that Patrick Geddes's threefold 'place, work, folk' could be classified as 'geography, economic and sociology', or 'environment, function and organism'. He further elaborated that within the context of the English town planning acts, these categories could mean 'proper sanitary conditions, amenity and convenience'; his preference would be 'beauty, health and convenience'. These three words describe the desired environments that planners aim to create – the question of 'what'. I argue that we also need to continuously review the purpose, the question of 'why'; the actors, the question of 'who'; and the means, the question of 'how', as they will fundamentally influence the outcome of planning practice.

Rekindling the founding spirit: the legitimacy of reimagined spatial planning

Why does spatial planning matter?

Let us now shift our focus from the past to the present and examine why the planning profession is crucial and more important than ever. This is because the survival of humanity relies on the intricate interaction between people and nature. Through a place-based approach, spatial planning plays a vital role in achieving net zero emissions, promoting a circular economy and driving a green industrial revolution that fosters a more equitable society.

According to the Intergovernmental Panel on Climate Change (IPCC) *Sixth Assessment Report on Climate Change 2022* (IPCC, 2022), over 45 per cent of the world's population currently live in land areas of high conservation importance, which are priority areas for nature conservation. The world's population is projected to rise to approximately 8.6 billion in 2030, and to reach 9.8 billion in 2050 (United Nations, 2017). New research using the harmonised definition 'degree of urbanisation' indicates that the unprecedented high-speed urbanisation of the last two decades has now started to slow down and is projected to continue over the coming decades (UN-Habitat, 2022). The share of the global population living in urban areas doubled from 25 per cent in 1950 to approximately 50 per cent in 2020. This percentage is expected to grow slowly in the next 50 years, reaching approximately 58 per cent. Meanwhile, the proportion of people living in the urban–rural continuum (towns and semi-dense areas as well as rural areas) will remain significant, with towns and semi-dense areas projected to 24 per cent (down from 29 per cent in 2020) and rural areas to 18 per cent (down from 22 per cent) over the same period.

However, due to the world's population growth and the low-density, informal development patterns of the urban–rural continuum, the land covered by the continuum is expected to remain almost twice that of the land covered by cities (UN-Habitat, 2022). This highlights the need to consider spatial planning from an urban–rural integrated

regional, national, continental and ultimately, planetary approach, rather than just urban areas alone. This is key to addressing some of the systemic issues, such as greenhouse gas emissions, ecosystem degradation, air, water and soil pollution, social inequality, inadequate social and physical infrastructure, housing and ageing population, as well as food security problems worsened by biodiversity decline and climate change.

The grand challenges confronting us are global in nature; only through international cross-disciplinary collaborations can we possibly address them. Numerous world-leading cross-disciplinary experts have recognised the importance of spatial planning and called for urgent actions to systemically utilise it. Some are quoted here:

Humans have influenced and changed many ecosystems around the world... One way in which we can manage this influence and activity, including for conservation and restoration, is through careful land-use and marine spatial planning to balance economic, social and environmental trade-offs. (Dasgupta, 2021, 463)

Urban planning and design can play a key role in making cities more prepared for future emergencies, thereby protecting the health of their communities. Urban conditions and design features may have a direct impact in all four phases of emergency and risk management – Response, Recovery, Mitigation, Preparedness. (WHO, 2022, 2)

Currently around 3.3 to 3.6 billion people live in areas highly vulnerable to climate change (IPCC, 2022). Through a comprehensive assessment of climate change impacts, risks and adaptation, the IPCC have concluded that there is limited evidence on proposed transformational climate adaptation across all regions, and very little evidence regarding implementation. The IPCC emphasises the urgent need for systemic transitions across multiple domains, including energy, urban and infrastructure, industrial, land and ocean systems, as well as society. To enable such transitions, the IPCC has pointed out that spatial planning requires the largest systemic changes as one of the key climate change adaptation options.

However, despite the recognition of the importance of spatial planning and its urgent need for systemic changes, there is still a lack of attention and action. In many regions, urban planning has been instrumentalised by property developers and other economic and political stakeholders (UN-Habitat, 2016).

Realising the systemic changes in spatial planning requires a fundamental shift in our approach. It is imperative that we reimagine spatial planning – from whom the profession is responsible for to who should lead its transformation, how we engage key stakeholders, what scope it should consider, and how to unlock its full potential. The window of opportunity to effectively address grand challenges is rapidly closing. Thus, it is vital that we act with urgency and purpose.

Who should lead the systemic changes?

At its heart, the spirit of the planning profession is focused on serving the community, but the complex nature of planning practice involves a wide range of ‘actors’ – stakeholders. As we have learned from Abercrombie’s case with the Plymouth Plan, this complexity is often compounded by human nature’s tendency to prioritise short-term gains over long-term interests, and further amplified by insufficient coordination between different government agencies, professionals and stakeholders.

The former UK chief scientific adviser, Professor Sir Mark Walport (2020), concludes that policymakers typically consider three different lenses when deciding on policies: evidence, deliverability and alignment with personal and political values. Therefore, despite the overwhelming scientific consensus that human activities are causing climate change, policies and actions to address it remain slow and inadequate (Alberti, 2020). To simulate effective progress towards systemic changes for sustainable development requires a focus on the long-term and a coordinated effort from all stakeholders.

The general public, and often planning professionals, perceive planning practice as a government function, which is partly true given that planning activities are governed by government policies and legislation. However, if the planning profession is truly committed to serving the community, it must take responsibility for its own advancement. In fact, this is how the profession started at the beginning, which was highlighted by Abercrombie (1910, 18) in the first edition of *Town Planning Review*: ‘The contributions towards the modern town planning movement for which England is responsible up to the present have been largely due to private effort and not municipal enterprise’. This highlights the fundamental necessity for the planning profession to take the leadership role in systemically transforming itself through both private and public initiatives. Only then can it truly fulfil its mission of serving the community.

The founding spirit of planning profession

The planning profession was originated with the aspiration of compassion, selflessness and creativity, which lies at the very heart of why Howard invented the garden city model. He once said:

I realised, as never before, the splendid possibilities of a new civilisation based on service to the community and not on self-interest, at present the dominant motive. Then I determined to take such a part as I could, however small it might be, in helping to bring a new civilisation into being. (Howard, cited in Moss-Eccardt, 1973, 14)

As a shorthand writer recording parliamentary debates every day from the age of 26 (Peter Hall et al., in Howard, 2003), Howard was exposed to the play of human nature more than anyone else. He commented ‘probably the chief cause of failure in former social experiments has been a misconception of the principal element in

the problem – human nature itself’ (Howard, 1898, 95). This awareness of human nature was reflected in the way Howard presented *To-morrow: A Peaceful Path to Real Reform* (1898) – it was written almost like a project proposal, which many parts of the society could see some relevance and benefits to themselves based on the principles of freedom and co-operation.

The essence of the garden city model lies in its function as a social community and economic model that fosters a sense of shared belonging. This model reflects the Enlightenment principle of society as a social contract, balancing individual freedom with co-operation for the common good. By embracing these principles, a garden city can creatively offer its residents an enhanced quality of life and a sense of collective responsibility for the community’s well-being. The garden city concept, as the foundation of modern planning, highlights the significance of not only planning physical environments but also creating effective socio-economic mechanisms and fostering consciousness. This demonstrates a crucial aspect of planning innovation in dealing with human nature.

In fact, the formation of the planning profession in the UK was a reaction to avoid the operation of the legislation falling into existing municipal administration and legal staff (Simpson, 1985). In 1913, Thomas Adams began to conceive of a professional body – the Town Planning Institute – to train ‘those who would work the new machinery’, to act as a ‘forum for all the environmental professions and as a sponsor of research into planning problems’ (Simpson, 1985, 64).

I believe that compassion, selflessness and creativity are still essential qualities that planners should have today. As the global population rapidly ages, spatial planning needs to respond quickly to this demographic trend and address the psychographic needs associated with it. By 2050, it is predicted that two billion people worldwide, one in five of us, will be over sixty years old (United Nations, 2014). Over 70 per cent of the population comprises vulnerable groups such as women, children, the elderly, disabled and other marginalised groups. Planners must have compassion to ensure inclusivity and equality, not only for people but also for the wider environmental sphere. Selflessness is another vital quality that planners should have, focusing on the collective well-being of the community instead of the self-interest of a small group of stakeholders. And importantly, planners need to be creative in finding new solutions for complex problems and diverse challenges.

Spatial planning as science and art

Spatial planning is a highly sophisticated discipline that blends science and art, bridging social, environmental and behavioural sciences. Despite its interdisciplinary and scientific nature, investment into spatial planning research has been significantly overlooked compared to pure STEM subjects (science, technology, engineering and mathematics). This leads to a lack of evidence-based decision-making processes,

and planning is often mistakenly conducted or perceived as a bureaucratic exercise. Furthermore, the moral philosophy aspect of planning – the societal responsibility of encouraging truth, beauty and goodness through planning practice – has been underappreciated, significantly compromising the foundation of the profession.

This prioritisation of STEM subjects can be traced back to the tendency to favour reason over emotion in the post-Enlightenment era (Alberti, 2020). For instance, there is a not uncommon belief that technical advancements alone can address climate change. However, this underestimates the influence of human nature, which can often lead us to make emotional choices rather than rational ones. Recognising this, the UK Committee on Climate Change (2020) highlights the significant contribution of societal and behavioural changes, which can account for up to 59 per cent of achieving the ‘Balanced Net Zero Pathway’. This pathway serves as the basis for the Commission’s Sixth Carbon Budget recommendation, representing ‘a decisive transition to Net Zero with over 60 percent of the necessary reduction to Net Zero achieved in the coming 15 years’. The interface between human activities and our physical environment is where planners can play a key role.

Therefore, advancing spatial planning through interdisciplinary collaboration and embracing scientific advancements, while also gaining moral recognition from society, holds immense value for the planning profession. As the pioneers of the planning profession such as Geddes and Unwin highlighted, it is essential to blend science and art in planning practice so as to work collaboratively with the public to better understand their needs, advance planning practice together and bring out the best in them.

In desiring powers for town planning our town communities are seeking to be able to express their needs, their life and their aspirations in the outward form of their towns, seeking, as it were, freedom to become the artist of their own cities, portraying on a gigantic canvas the expression of their life. (Unwin, 1909, 9)

If town planning is to meet the needs of the city’s life, to aid its growth and advance its progress, it must surely know and understand its city. To mitigate its evils, it needs diagnosis before treatment. To express its highest ambitions, it must appreciate and share them. Hence town planning and civics must be advanced together. (Geddes, 1915, 295)

It is time to rekindle the founding spirit of the planning profession and stimulate a cross-sectoral movement to transform the currently marginalised planning profession into a state-of-the-art cross-sectoral discipline. As a highly creative practice that blends science and art, combining reason and emotion, the scope of spatial planning encompasses cities, rural areas and marine environments.

In the face of complex interconnected issues, the ultimate truth remains simple: planning revolves around the relationship between people, nature and society. The fundamental objective of the planning profession is to create a balanced system for

people, nature and society to co-exist in harmony. Nature must be our first priority. If we envision the Earth as our nurturing mother, with soils as her muscles, river systems as her blood vessels, and woodlands as her hair, then cities, towns and villages are her vital organs. Everything is a part of a holistic, integrated and interconnected ecosystem. Therefore, planning activities involve protecting the environment, inspiring communities, defining land use, engaging in design and stimulating social and economic activities. Through these efforts, spatial planning achieves its goal of creating a happy and healthy environment for everyone.

A systemic transformation for the future

The transformation of spatial planning to meet the challenges of the future must begin from within the planning profession itself. This requires a willingness to be self-critical, to think beyond professional boundaries and beyond the present day, and to be open-minded about the means to achieve this transformation. The urgency of the situation demands that we act quickly and decisively, and the planning profession must have the confidence to lead the way. This includes rebalancing professional structure of spatial planning, allowing methodological changes empowered by innovation and new technological abilities, and importantly, empowering planners with the capability and opportunities to stimulate our own behaviour changes. In this section, I will explore the necessary steps for a systemic transformation of spatial planning that will enable planners to address the complex and dynamic challenges facing our communities today and in the future.

The necessity to rebuild the three pillars of spatial planning

To ensure that spatial planning is empowered to meet future needs, a primary focus must be on restoring balance to its structure by reinstating the creative pillar and civic support pillar of planning alongside the administrative and legislative pillar (Figure 1). While the latter pillar is primarily a government function, the former two rest in the hands of planners.

Each of these pillars is essential to the success of the profession and effective implementation of planning initiatives. The creative pillar requires embracing state-of-the-art innovation and technologies as well as creative socio-economic mechanisms to resolve complex challenges, ensuring that the best practices are advocated for and implemented in planning exercises. The civic support pillar is focused on building and maintaining positive relationships between planners and the communities they serve, facilitating effective public engagement and empowering citizens to be positive agents for advancing spatial planning. Finally, the administrative and legislative pillar provides the necessary legal and regulatory frameworks that enable planners to develop and

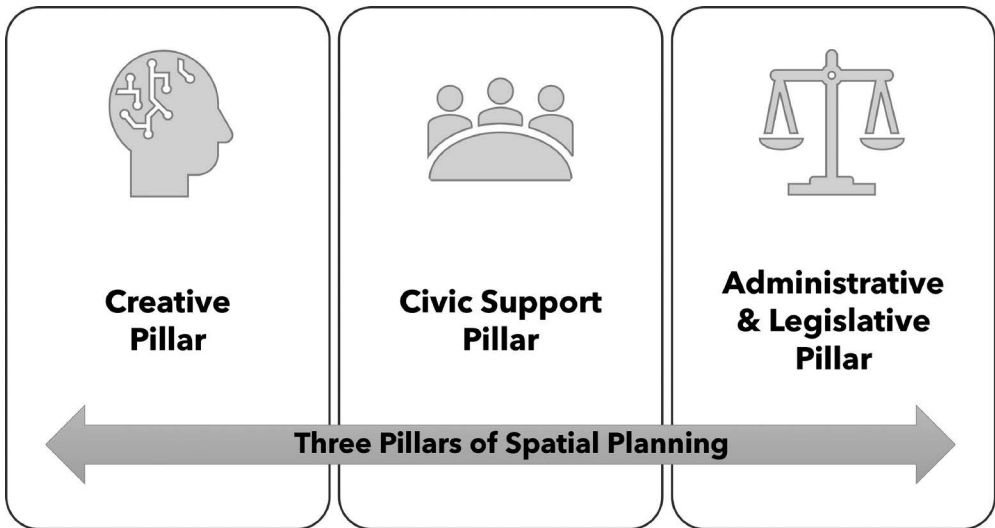


Figure 1 Three pillars of spatial planning

implement effective policies and mechanisms. By rebuilding and rebalancing these three pillars, spatial planning would have significant opportunities to reinvigorate and transform itself to be a positive force for public benefit.

How to empower the transformation?

As previously stated, it is crucial that the transformation of spatial planning starts from within the planning profession, i.e. planners need to change our behaviour. Understanding the behaviour system is essential for us designing effective interventions that enable this transformation. According to Professor Susan Michie and her team's COM-B model (Michie et al., 2011), behaviour change (B) requires three necessary conditions: capability (C), opportunity (O) and motivation (M). Figure 2 illustrates how the components of the COM-B system interact, influencing behaviour. Capability refers to an individual's psychological and physical capacity for an activity, including knowledge and skills. Motivation involves all brain processes that energise and direct behaviour, including habits, emotions and analytical decision-making. Opportunity includes external factors enabling or prompting behaviour. The arrows represent potential influences between components. In the following sections, I will discuss how various interventions can be introduced to these three conditions to enable behavioural changes within the planning profession.

The COM-B Model:

behaviour occurs as an interaction between three necessary conditions

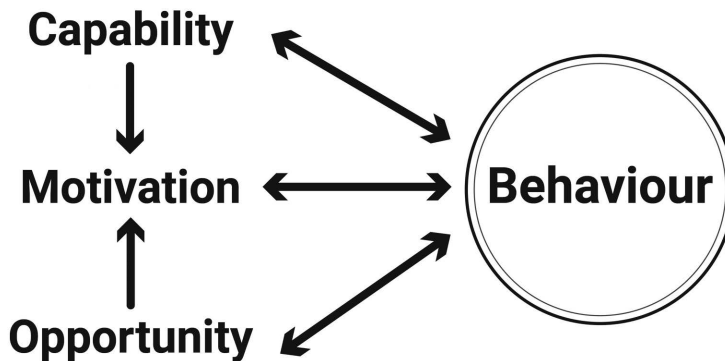


Figure 2 The COM-B model: behaviour occurs as an interaction between three necessary conditions

Source: Michie et al. (2011)

Capability: core competencies of a modernised planning profession

To effectively address the complex challenges facing our world today, it's becoming increasingly clear that planners need to have a set of core competencies, which include global vision, interdisciplinary and digital skills, trust-building abilities, leadership qualities and professional integrity.

- *Global vision*: the ability to evaluate local issues within a global context, see the bigger picture and have a long-term vision.
- *Interdisciplinary and digital skills*: equipped with interdisciplinary, digital and data analytic skills to establish connections between plan-making and place-making, with the ability to create innovative mechanisms to address complex socio-economic issues, and apply state-of-the-art knowledge to contribute to immediate actions in response to the climate and biodiversity emergency.
- *Trust-building abilities*: being a champion of diversity in a representative profession, and fostering connections with diverse communities through active listening and two-way communication. Having the ability to facilitate effective engagement and collaboration with communities, enabling them to shape the places where they live, work and enjoy their lives.
- *Leadership qualities*: proactive, informed and strong leadership to shape smart, resilient and beautiful places.
- *Professional integrity*: upholding professional integrity to protect public interests, champion social equality and honour our planet.

The future of the planning profession relies heavily on capability building, as it ensures that planners possess the necessary knowledge, skills and attitude to enact effective and impactful changes.

Motivation: systemic transformation through methodological changes

Motivation, closely linked to human nature, plays a crucial role in planning. While stakeholders may have varying motivations, planners' motivation should be to foster consensus and collaboration among different interest groups, establishing a shared vision and sense of purpose to achieve collective benefits. To facilitate this, a clearly structured and dynamic spatial planning methodology that addresses information flows and decision-making processes is essential.

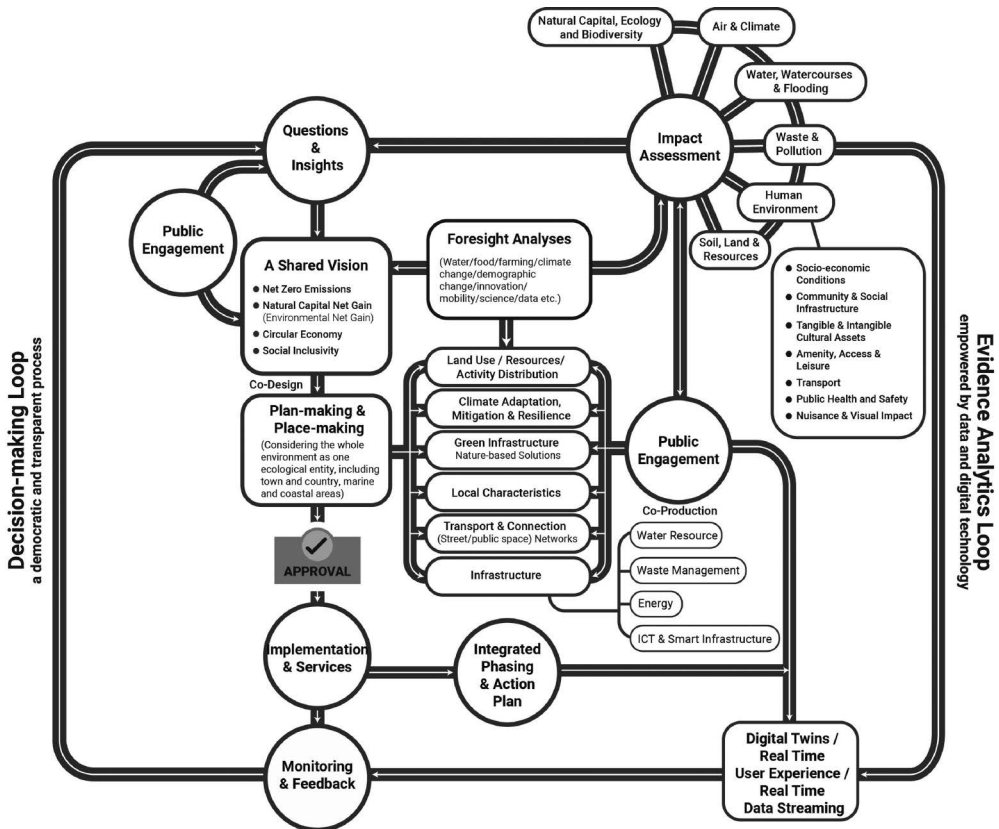


Figure 3 A digitally enabled integrative methodology to spatial planning

In practice, planning methodologies have been diversified by various, sometimes conflicting, approaches since Geddes's 'survey-before-plan' methods (Phelps, 2021). The interrelationship nature of plan-making necessitates both hard (quantitative) and soft (qualitative) approaches (Batey, 2018). With the current significant advancements in digital technology and big data, there is the potential to develop a digitally enabled integrative methodology that synchronises quantitative and qualitative approaches, as well as incorporates public engagement and multidisciplinary input, thereby systematically transforming spatial planning practice.

As shown in Figure 3, this digitally enabled integrative methodology involves two interrelated loops: an *evidence analytics loop*, which is informed by multidisciplinary evidence empowered by data and digital technology, and a *decision-making loop*, which involves legislative procedures and a democratic and transparent process. These two loops are interactive and integrative, and can be interlocked in countless ways, depending on the planning task required. It transforms the way we collaborate, share data and knowledge and advance planning practice collectively with citizens and other key stakeholders.

This methodology creates a digitally empowered circular process that enables planners and key stakeholders to iterate and explore ideas, while also engaging in real-time plan-making and place-making through a dynamic process. Aligned with the core motivations of the planning profession, this people-centric approach facilitates meaningful engagement and interdisciplinary collaborations. It also enables a better understanding of the trade-offs between short-term gains and long-term benefits at various spatial scales. By supporting democratic and evidence-based decision-making, it fosters a shared vision and sense of purpose for collective benefit. The methodology integrates and redefines each key planning stage into a holistic process:

- *Stage 1: Framing questions and gaining insights* involves a thorough analysis of the past, present, and the future by understanding community needs, analysing existing societal, environmental and economic conditions, as well as foreseeing (GOS, 2022) the possible future implications of impacts from climate and ecological changes, demographic changes and technical interventions etc. With the enormous amount of data obtained at this stage, planners need to collaborate with a wide range of specialists to frame the 'right' questions that help translate data into insightful information. In addition to the traditional methods, such as direct conversation with communities and in-person site visits, to aid this fundamental stage, many new digital techniques and platforms can be systematically utilised to proactively engage community at the beginning and gain in-depth knowledge and wisdom, for instance: a common spatial data environment at the global and national level, space technology, drone survey, regional and local data input, participatory GIS with real-time data input, climate change impact simulation, artificial intelligence and various analytic tools.

- *Stage 2: Creating a shared vision for the future* requires skilful facilitation from planners to communicate the importance of considering policies and projects against the principles of the universal common good, in terms of net zero emissions, natural capital net gain (environmental net gain), the development of a circular economy, and social inclusivity in relation to the global/national/regional/local context. To overcome the natural human tendency of favouring short-term gains over long-term benefits, planners need leadership and empathetic communication skills, as well as the use of various visualisation and participatory tools and methods to present different scenarios to non-technical stakeholders in an accessible, transparent and interesting way to draw consensus amongst the broader community.
- *Stage 3: Interconnected plan-making and place-making* requires planners to consider the natural and built environment as one ecological entity, with a focus on key interactions between human activities. Moreover, co-plan, co-design and co-production mechanisms need to be employed to engage the public throughout the process. Nature-based solutions, climate adaptation and innovative socio-economic models need to be considered in conjunction with land use, resources (such as water, minerals and soils), and activities (such as farming, fishing and leisure) to ensure long-term resilience and enable efficient multifunctional use, as well as natural capital net gain. In addition, local characteristics, both man-made and natural (such as heritage assets, architecture, public realm, landform, ecology and landscape), transport and connectivity issues in terms of networks (such as roads, streets and public spaces) and infrastructure provision (such as water resources, waste management, energy, ICT and smart infrastructure) need to be considered in a spatial and integrated way to maximise carbon and pollution reduction and to stimulate cultural and economic activities for healthy and low carbon lifestyles. This stage can benefit greatly from a diverse range of digital tools, such as those used for participation, engagement, analysis, visualisation and design, as well as integrated information management systems, such as Building Information Model (BIM)² and digital twins.³
- *Stage 4: Approval* is a key milestone that can be achieved in a more efficient way through an engaging and transparent decision-making process.⁴ The granting of planning permission is a transitional part of the decision-making process. From there, information gathered through planning application management

2 Building Information Model (BIM) is a digital representation and management system used in the architecture, engineering and construction sectors. It involves the creation and use of a virtual 3D model that contains detailed information about a construction project.

3 A digital twin is a virtual replica or representation of a physical object, system or process. It is a digital counterpart that simulates and mirrors the characteristics, behaviour and performance of its physical counterpart in real-time or near-real-time.

4 For simplicity, the potential appeal procedures have been omitted from the loop diagram.

platforms can be consolidated to form an integrative planning open data framework to benefit long-term planning and create an evidence base for the future.

- *Stage 5: Implementation and services* based on integrated phasing and action plans can effectively coordinate actions amongst different parties. Again, the public need to be kept informed and engaged throughout the process. The success of this process would depend on the support of effective information management systems, such as BIM and digital twins, as well as adequate data input, such as real-time data streaming.
- *Stage 6: Monitoring and feedback* and reiterating the cyclic process is a vital step in closing the decision-making loop and the evidence analytics loop. By continually utilising BIM, digital twins, with other digital tools (such as participatory GIS, artificial intelligence, and machine learning), real-time user experiences and performance data can be gathered and analysed, for instance, energy consumption, pedestrian and vehicle movement, public building and public space usage, biodiversity gains or losses and much more. Such data is crucial in building an evidence base for future improvement and planning.

This digitally enabled integrative methodology has the potential to generate an invigorated community approach, making planning more interesting, visual and accessible. It can also speed up planning processes, resulting in cost savings, increased efficiency and productivity, as well as a unified approach to information management. The methodology can also help break administrative boundaries, allowing us to consider local and regional matters from a global perspective. Moreover, it will provide greater resilience and flexibility to respond to unforeseeable incidents such as pandemics and extreme weather conditions. All in all, I believe this methodology empowers planners to leverage the latest technology and scientific research, fostering collaboration with key stakeholders to establish consensus and a shared vision, ultimately working towards achieving collective benefits.

Opportunity: persuasive planning

As our society faces an increasingly complex future characterised by grand challenges, socio-economic changes and technological transformations, it presents both challenges and opportunities for spatial planning to make significant progress in meeting future needs. In *To-morrow*, Howard (1898, 116) wrote: 'Among the greatest needs of man and of society to-day, as at all times, are these: A worthy aim and opportunity to realise it; work and ends worth working for'. The same is true one century later; I believe the best way to promote innovation is through pioneering practice.

Abercrombie (1933, 139) raised a concept of having 'advisory development plans' prepared by an unofficial body before the 'legal planning scheme' conducted by

authorities. These plans, also referred to as ‘persuasive planning’ by Abercrombie, would take a long-term, strategic and visionary approach. He suggested that these type of plans should be the second technical stage of comprehensive modern planning, between the stages of preliminary survey and the legal planning scheme.

Case study: Regional Plan Association

Abercrombie’s idea was inspired by the work of Thomas Adams at the Regional Plan Association (RPA), which was founded in 1922 as an independent, not-for-profit regional planning organisation. It is the oldest civic organisation of its kind in America, with a focus on improving the quality of life and economic competitiveness of the 31-county New York-New Jersey-Connecticut region (Surico, 2022).

From 1923 to 1930, Thomas Adams was the General Director of Plans and Surveys responsible for producing *The Regional Plan of New York and its Environs* (Committee on the Regional Plan of New York and Its Environs, 1929). The production of this remarkable plan was a milestone in planning – one of the first times an entire region, not just an individual city was comprehensively planned. The plan was initiated in October 1922 by Raymond Unwin, who was the chief architect of the UK’s Ministry of Health, in his report to the Committee on ‘New York and its environs as a regional planning problem from a European point of view’ (Unwin, 1922). The purpose of the first regional plan was to guide the development of the New York metropolitan area and enhance the quality of life of residents, regardless of administrative boundaries.

Over the last 100 years, the Association has produced four regional plans for the tri-state region – in 1929, 1968, 1996 and 2017, respectively (RPA, 2022). The approaches for developing these regional plans have comprehensively evolved and advanced over the years. Although the RPA does not hold any official powers, its substantial influence is evident through the active engagement of the general public, businesses and other key stakeholders in formulating its plans. The RPA’s team of planners and advocates serves as a valuable resource for the tri-state region, which is home to 24 million people and contributes to one-tenth of the US GDP. Their guidance significantly shapes the trajectory of this region. Notably, since assuming office in August 2021, the current governor of New York, Kathy Hochul, has directly integrated some of RPA’s visions into her policies (Surico, 2022).

The RPA model serves as an exemplary case of visionary and strategic planning for public benefit, highlighting opportunities for similar approaches to be adopted to produce pioneering practices leading spatial planning innovation. As a quote from the RPA (2022) website says: ‘Before they had a plan, they didn’t have a clue, and they didn’t have a prayer!’

The Digital Task Force for Planning

Of all the actions needed to modernise the planning profession, I believe the most urgent one is its digitalisation – not just using digital tools to digitise current planning activities, but systemically transforming planning methodology to embrace the latest digital technology and scientific innovations.

The first stage: an independent expert panel

In early 2021, Professor Michael Batty, chairman of the Centre for Advanced Spatial Analysis (CASA) at UCL, and I co-founded a Digital Task Force for Planning to raise awareness and stimulate actions. It was an independent expert panel with members selected from a broad range of leading experts in the fields of planning and digital technology. During 2021, the Task Force conducted a comprehensive cross-sector consultation involving the UK local and national government departments, agencies dealing with the natural and built environment, digital technology, public health and higher education. A big question was asked: ‘What should be done now to make our world a better place for our future generations through achieving a universal common good?’.

In February 2022, the Task Force report, *A Digital Future for Planning: Spatial Planning Reimagined* (Batty and Yang, 2022) was published. It outlines a collective vision for the future of planning, and places spatial planning at the forefront of addressing grand challenges, envisioning a planning profession equipped with new digital tools, expertise and improved data. The report has been viewed by readers from 125 countries and received warm support. While the UK was used as the context for the study, we believe the approach discussed can be adapted to different planning systems worldwide.

Our research also identified that digital integration in planning is uneven and highly fragmented. There is a huge digital skill gap in planning practice and education in general. We believe planners should play a proactive role in driving the digitalisation of the profession by learning from other professions, such as engineering, environmental specialists and the public health sector. The digital skillset for planners should be diversified to allow a wide scope of expertise to be developed, along with innovative ways of collaboration. We urged immediate actions to cultivate an ecosystem to allow advanced digital technologies to be applied in mainstream planning practice and education.

A new venture of the Task Force: an innovation-led social enterprise

In October 2022, Professor Batty and I incorporated the Task Force as a not-for-profit organisation – an innovation-led social enterprise to unlock the full potential of spatial planning in the digital era. In this new stage, the Task Force focuses on the

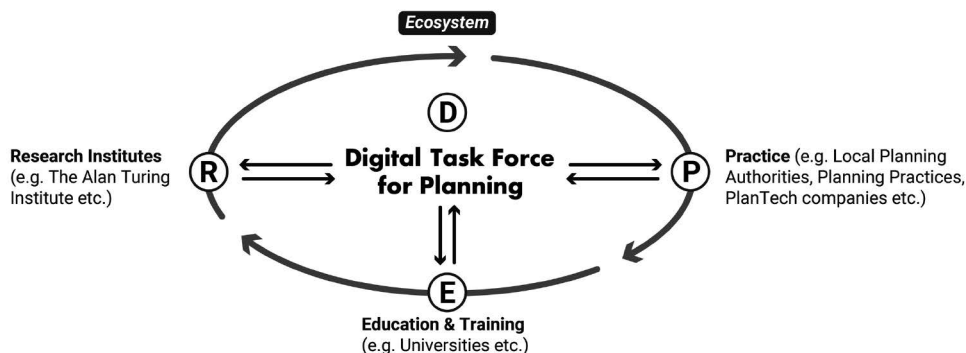


Figure 4 Proposition of the Digital Task Force for Planning

‘development’ part of research and development (Figure 4) – to act as a convenor, facilitator and enabler of digitalisation in mainstream planning practice and education, to support the establishment of an integrated ecosystem for spatial planning innovation.

Our mission is to reinvigorate the planning profession – creating a reimagined planning profession that can coordinate the best knowledge and advance the most appropriate digital tools and innovation from related disciplines so that we can achieve a shared vision and to create a better future for everyone.

The Task Force is still in its infancy. As an entity promoting digital innovation in spatial planning, its main tasks include consolidating existing scientific research and digital tools relevant to spatial planning, identifying research gaps and developing practical solutions. The Task Force also aims to function as an incubator of digital planning innovation and help promote capacity building through training, knowledge sharing and various activities. I often describe the Task Force as a ‘digital National Trust’ – it promotes valuable knowledge sharing as assets for public good. Our research outcomes will be made open source worldwide.

Concluding remarks

It was a great privilege for me to have been invited by the editors of *Town Planning Review* to deliver the 17th Abercrombie Lecture. This unique opportunity allowed me to pay tribute to Abercrombie and other planning pioneers while sharing my thoughts on instigating systemic changes in spatial planning. As we commemorate the 125th anniversary of Howard’s *Tomorrow* book in 2023, we are reminded of our founders’ visionary contributions. They would undoubtedly act decisively and urgently if faced with the challenges we confront today.

Spatial planning holds vast potential when embraced as an applied social, environmental and behavioural science discipline of global significance. To shape a reimagined planning profession, we must reignite our spirit and foster a confident, creative and impactful approach that considers both local and global perspectives. This is essential to achieve the goal of creating harmonious communities for both people and nature. The desire for change must originate from within the planning profession itself, necessitating behavioural shifts driven by capability, opportunity and motivation. While dissatisfaction with the current state of the profession persists, there is also apprehension surrounding the digital revolution, stemming from uncertainties and a lack of confidence. However, looking back to history, it is crucial to recognise that planning has always embraced innovation. Howard, an inventor, emphasised the use of advanced technologies in planning. The idea of integrating computation into planning as a cyclic process and adopting a systems approach emerged in the 1960s (McLoughlin, 1969; Chadwick, 1971).

The profession must seize the significant opportunity to lead the digital revolution in planning before it passes us by. Digital technology empowers us to accomplish tasks that were previously beyond our reach. However, it is vital to acknowledge that automated procedures can never replace the essential role of planners in addressing the complex challenges we face. Soft skills and empathy, inherent to human beings, are indispensable qualities within the profession's skill set. The relevance of digital and technical skills lies solely in their appropriate and thoughtful application, representing a departure from blind technocratic approaches. In the digital era, it remains imperative that the planning profession is characterised by compassion, selflessness and creativity. Embracing the moral responsibility of fostering truth, beauty and goodness will propel the planning profession forward, positioning it as a recognised part of the solution in the eyes of the public. By harnessing the potential of digitally enabled spatial planning, we can transcend departmental and professional silos, offering a transformative solution that unites all positive forces towards achieving a universal common good.

In closing, I would like to share a quote from Octavia Hill, one of the founders of the National Trust, which resonates with the essence of this lecture. She once said: 'New circumstances require various efforts, and it is the spirit, not the dead form, that should be perpetuated' (Hill, cited in Jones, 2012, 22). While we have greatly benefitted from the vision and dedication of our planning pioneers, it is now our responsibility to rekindle the founding spirit of the planning profession for the future. Let us ask ourselves, if not us, then who? If not now, then when?

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