



**35th AESOP Annual Congress**

**INTEGRATED  
PLANNING  
IN A WORLD  
OF TURBULENCE**

**BOOK OF PROCEEDINGS**



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In recent years, the modern world has been facing growing civilization challenges related to the effects of climate change, progressive degradation of the natural environment resources and values, internal and external migrations resulting from economic crises and political tensions, as well as shortening product life cycles, automation and autonomization of management processes in business and the public sector.

Development processes are going to be difficult to predict, such as the outbreak of the COVID-19 pandemic in 2019 appearance, for example. Uncertain forecasts for the future force us to expect further development disruptions. Importantly, these phenomena have their consequences in the sphere of spatial development patterns and ways of using it by various stakeholders. These consequences are revealed on a local, regional, national and transnational scale, implying the need to develop methods of cooperation between various planning entities and planning systems.

Space is becoming - on the one hand - an increasingly valuable resource, and its values and territorial dimension become an important factor of the development and growth processes - on the other hand, it requires more and more flexible adaptation of its development patterns to changing trends and forecasted challenges and problems.

This raises the question of the effectiveness and legitimacy of using the existing, more traditional planning approaches based on the methodology of long-term strategic planning aimed at building stable foundations for the development of society and - in contrast to this - searching for new approaches corresponding to the indicated planning challenges in conditions of high uncertainty of events, risks and anthropogenic and natural hazards. A particular challenge seems to be the need to use planning tools in international cooperation to reduce the negative externalities related to the side effects of globalization processes.

The Congress aimed to create a space to discuss the importance and role of **Integrated Planning in a World of Turbulence**. With this Book of Proceedings Congress Attendees provided a valuable contribution to this discourse!

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AESOP 2023 Annual Congress Lodz



<b>TRACK 01: INTEGRATED PLANNING FOR COMPLEXITY .....</b>	<b>10</b>
HEALTH IMPACT ASSESSMENT IN URBAN DEVELOPMENT: MODEL APPROACH, POTENTIALS AND LIMITATIONS FOR THE SYSTEMATIC INTEGRATION OF HEALTH ASPECTS IN URBAN PLANNING PROCESSES. CASE STUDY GERA, GERMANY (1094) .....	10
EVALUATING OF NEW TOWN PLANNING IN SOUTH KOREA: NEW URBANISM PERSPECTIVE (1100) 24	
ATLANTE DEL CIBO DELLA LAGUNA DI VENEZIA: TOWARDS A FOOD POLICY FOR THE VENICE LAGOON (1126) .....	46
CAMPUS DESIGN, WALKING PRACTICE AND SPATIAL APPROPRIATION: A PSYCHOGEOGRAPHIC COMPARISON OF THE ALLE AT VAN YÜZÜNCÜ YIL UNIVERSITY AND ANKARA MIDDLE EAST TECHNICAL UNIVERSITY IN TURKEY (1133) .....	71
<b>TRACK 02: SMART AND AGILE PLANNING: SMART CITIES AND REGIONS.....</b>	<b>94</b>
METHOD FOR REFINED FUNCTION ZONING PREDICTION OF TOURIST TOWN URBAN DESIGN BASED ON BIG DATA AND CONDITIONAL GAN (1053) .....	94
BEYOND VISUALISATION OF BIG DATA: TOWARDS DYNAMIC DATA-DRIVEN CITY PLANNING IN SINGAPORE (1068) .....	109
TOWARDS COMMUNITY-HEALTH PLANNING: COMPLIANCE AND THE SOCIAL SPACE OF CITIES UNDER COVID-19 REGULATIONS (1069) .....	124
HOW TO SUPPORT AFFORDABILITY AND SUSTAINABILITY OF HOUSING? SET OF TOOLS APPLICABLE VIA STRATEGIC PLANS OF CITIES (1087) .....	146
MULTI-FACTORS EVALUATION OF THE IMPACT OF THE STREET-LEVEL ON SEXUAL CRIME OCCURRENCES USING COMPUTER VISION AND BIG DATA: A CASE STUDY OF MANHATTAN (1120) .....	157
RESEARCH ON THE REGIONAL SPATIAL STRUCTURE AND CHARACTERISTICS FROM THE SPACE OF FLOWS PERSPECTIVE BASED ON BIG DATA: TAKE GUIZHOU PROVINCE IN CHINA AS AN EXAMPLE (1154) .....	189
<b>TRACK 03: PLANNING AND LAW FOR TURBULENT FUTURE .....</b>	<b>202</b>
ZONING CHANGES IN RECENT ITALIAN URBAN PLANS FOR SUSTAINABLE REGENERATIONS: THE CASES OF MILAN AND BOLOGNA (1067) .....	202
STRATEGIC THINKING AS BASIS FOR SUCCESSFUL FUTURE DEVELOPMENT: REPURPOSE POREČ: DEVELOPMENT VISION 2050 (1085) .....	212
<b>TRACK 04: INTEGRATED PLANNING OVER THE BORDERS .....</b>	<b>238</b>
FOUR CITIES, THREE PROVINCES, TWO STATES, ONE REGION: INTEGRATED INNER-CITY DEVELOPMENT CONCEPT IN A REGIONAL CONTEXT (ISEK <sup>4</sup> ) (1063) .....	238
INTEGRATED PLANNING OVER THE BOUNDARIES WITHIN CHINA (1096) .....	254

VOLUNTARY TERRITORIAL PLANNING TOOLS AND BOUNDARIES CHANGES: SOFT SPACES FOR BETTER ADDRESSING CHALLENGING TERRITORIAL ISSUES IN THE LAZIO REGION (1124).....	276
<b>TRACK 05: PLANNING FOR MOBILITY: ACCESSIBILITY, AFFORDABILITY AND SUSTAINABILITY</b>	<b>286</b>
RESEARCH ON FUTURE URBAN COMPREHENSIVE TRANSPORTATION DEVELOPMENT STRATEGY: BASED ON WUHAN YANGTZE NEW TOWN (1056) .....	286
URBAN TRAFFIC STATUS ANALYSIS AND PLANNING EVALUATION BASED ON MOBILE BIG DATA: A CASE STUDY OF JINGHONG CITY (1098) .....	301
IDENTIFYING LINKAGES BETWEEN DEMOGRAPHICS, BEHAVIORS, AND ROAD ACCIDENT FREQUENCY: A MACHINE LEARNING APPROACH IN ENGLAND (1108) .....	316
SPATIAL STRATEGY PLAN AS A METHODOLOGICAL APPROACH IN ENSURING ACCESSIBILITY: THE CASE OF ISTANBUL (1128) .....	328
NAVIGATING THE GANGES: EXPLORING THE ROLE OF INLAND WATER TRANSPORT IN ENHANCING ACCESSIBILITY, AFFORDABILITY AND ACCEPTABILITY IN VARANASI (1138).....	353
THE SPATIAL ACCESSIBILITY AND EQUITY OF PRIMARY HEALTH CARE FACILITIES IN NORTHWEST CHINA FROM THE PERSPECTIVE OF LIFE CIRCLE: A CASE STUDY ON KARAMAY (1139) .....	376
INVESTIGATING THE LEGISLATIVE STATUS OF GREEK TRADITIONAL SETTLEMENTS FOR ENSURING ACCESSIBILITY FOR PEOPLE WITH DISABILITIES (1140) .....	388
LIFE SERVICE TOD SPACE ORGANIZATION AND PLACE CREATION FROM THE PERSPECTIVE OF PEOPLE (1153) .....	400
<b>TRACK 06: PLANNING FOR DEMOCRACY AND GOVERNANCE .....</b>	<b>414</b>
UNDERSTANDING IMPLEMENTATION OF A STRATEGIC TOOL IN PLANNING LAW – NATIONAL DIVERSIFICATION BY IMPLEMENTATION: REGIONAL PLANNING STRATEGIES, RPS, IN NORWAY (1049) .....	414
HOW NETWORK RESOURCES EMPOWER EXPERT INVOLVEMENT? EVIDENCE FROM URBAN PLANNING DECISION-MAKING IN CHINA (1052).....	435
OVERTOURISM AND SPATIAL PLANNING IN GREECE: CHALLENGES (1077) .....	466
WHAT DOES ‘AUTHENTICITY’ MEAN IN JAPANESE CITIES? A CASE STUDY OF KANAZAWA CITY (1105) .....	484
RESEARCH ON THE WORKER COMMUNITY GOVERNANCE TRANSFORMATION AND RESIDENTS’ SELF-ORGANIZATION: A CASE STUDY OF PINGDINGSHAN CITY, CHINA (1132) .....	502
<b>TRACK 07: PLANNING FOR RESILIENCE: TERRITORIES, COMMUNITIES AND ENVIRONMENT ..</b>	<b>520</b>
ENHANCING RAIN-FLOOD RESILIENCE IN URBAN PLANNING: A PARAMETERIZED DESIGN APPROACH INTEGRATING SCS-CN METHOD AND GRASSHOPPER (1032).....	520
RESILIENCE AND RISK MULTIADAPTATION: A METHOD AND A CASE STUDY (1058) .....	529

PLANNING METHOD OF CORRIDOR NETWORK IN MULTI-RESIDENTIAL PUBLIC SPACE (1059) .....	543
CITIZEN SOCIAL SCIENCE IN SPATIAL PLANNING – POTENTIALS FOR RESILIENCE IN A COMPLEX UNPREDICTABLE WORLD (1064) .....	557
RESEARCH ON REGENERATION STRATEGIES OF OLD URBAN AREAS FROM THE PERSPECTIVE OF RESILIENCE: TAKE ERQI SQUARE IN DALIAN, CHINA AS AN EXAMPLE (1078) .....	577
RESILIENT SPATIAL PLANNING AND GOVERNANCE STRATEGIES FOR INDUSTRIAL TOWNS FACING SUDDEN EPIDEMIC: BASED ON THE CASES IN CHINA (1097) .....	599
ACHIEVING ADAPTATION IN MEDIUM-SIZED CITIES: THE CONTRIBUTION OF URBAN CLIMATE TRANSITION STRATEGIES IN INCREASING SOIL PERMEABILITY (1113) .....	620
REFRAMING REGIONAL ECONOMIC RESILIENCE FOR COOPERATIVE REGION (1117) .....	665
THE RESILIENCE PERSPECTIVE FOR BETTER DEALING WITH TERRITORIAL PLANNING POLICIES IN NON-METROPOLITAN AREAS (1123) .....	694
ACTIVATE THE WATER HERITAGE TO BUILD MORE SUSTAINABLE COMMUNITIES (1130) .....	704
INTEGRATION OF LOCAL AGRI-FOOD SYSTEMS IN SPATIAL PLANNING: FOODSHED ASSESSMENT THROUGH ECOSYSTEM SERVICES (1131) .....	721
A LADDER OF URBAN RESILIENCE: TOWARDS A PARADIGM OF EVOLUTIONARY RESILIENCE TO SUPPORT COMMUNITIES FACING CHRONIC CRISES (1152) .....	746
<b>TRACK 08: PLANNING FOR CULTURE AND TOURISM: PUBLIC SPACES, HERITAGE, IDENTITY, REGENERATION .....</b>	<b>777</b>
THE PUBLICNESS OF SPACE IN HELSINKI LIBRARIES: LETTING THE OUTSIDE IN AND THE INSIDE OUT (1040) .....	777
EVALUATING THE ACCESSIBILITY OF GREEN NETWORKS: A CASE STUDY ON NEW CITIES IN SEOUL METROPOLITAN AREA (1065) .....	792
THE PERCEPTION AND PREFERENCE OF COMPOUND SPACES IN TRADITIONAL VILLAGES IN CHINA (1066) .....	814
STRATEGIES AND EVALUATION OF URBAN REGENERATION OF HISTORIC INDUSTRIAL DISTRICTS FROM A LIFE CYCLE MANAGEMENT (LCM) PERSPECTIVE: A CASE STUDY OF YANGPU RIVERFRONT IN SHANGHAI (1075) .....	836
THE SIMPLIFIED COURTYARD AND ITS PUBLIC SPACE IN NORTH CHINA’S SMALL CITIES: SIGNIFICANCE, THREATS, AND OPPORTUNITIES (1082) .....	855
EMERGING AGENCIES WITHIN ARTISTIC METHODS OF CO-CREATION THAT INFORM PLACE NARRATIVES (1099) .....	870
THE SIGNIFICANCE AND PRACTICE OF ECOLOGICAL AGRICULTURAL COMPLEX CONSTRUCTION IN THE PROTECTION OF TRADITIONAL VILLAGES AND CULTURAL INHERITANCE (1115) .....	882

REFLECTIONS ON TIRANA'S URBAN IDENTITY (1146) .....	894
THE NATIONAL VILLAGE AND THE NATIONALITIES IN VILLAGE: THE IDENTITY OF HUI NATIONALITY AND EVOLUTION OF RESIDENTIAL SPACE IN XIZHOU ANCIENT TOWN, YUNNAN PROVINCE (1147) .....	902
<b>TRACK 09: PLANNING FOR INCLUSIVE, MULTICULTURAL AND JUST CITIES .....</b>	<b>917</b>
PARK SEGREGATION AND PARK ACCESS: AN ENVIRONMENTAL JUSTICE INQUIRY OF URBAN PARKS IN MONTGOMERY, ALABAMA (1073) .....	917
LOW-INCOME CLASS'S RESIDENTIAL SEGREGATION AND URBAN REDEVELOPMENT PROJECT BETWEEN 2011 AND 2020 (1086) .....	950
DOES SOCIAL INFRASTRUCTURE REDUCE SOCIAL ISOLATION FOR URBANITES? : USING A MULTILEVEL LOGISTIC MODEL (1088).....	974
TOWARDS HIGHER-DENSITY COMMUNITIES: A DISRUPTIVE TRANSITION? THE CASE OF NANHUAN NEW RESIDENTIAL COMMUNITY IN SUZHOU, CHINA (1106).....	996
ASSESSING HOUSING QUALITY FOR LOW- INCOME GROUPS IN THE CENTRAL BUSINESS DISTRICT OF BANGKOK, THAILAND (1111) .....	1005
CHANGES IN MULTI-SEGMENTATION OF THE KOREAN LABOUR MARKET AND HETEROGENEOUS GAPS: THE LABYRINTH OF IN-WORK POVERTY (1116) .....	1026
COMPARING METHODS FOR NEIGHBOURHOOD MAPPING WITH CHILDREN IN THE CONTEXT OF TÜRKIYE (1119).....	1068
DESIGNING FOR GENDER EQUALITY: SPATIAL THRESHOLDS AS EMPOWERMENT DEVICES (1143) .....	1085
<b>TRACK 10: INTERDISCIPLINARY PLANNING EDUCATION: CHALLENGES, DIALOGUES, INNOVATIONS .....</b>	<b>1107</b>
A COMPARATIVE PRODUCT ANALYSIS OF ONLINE AND FACE-TO-FACE BASIC DESIGN EDUCATION (1079) .....	1107
COMPARING COMMUNITY ENGAGEMENT IN PLANNING EDUCATION AND CO-CREATION IN HIGHER EDUCATION: A LITERATURE REVIEW (1122).....	1128
OVERCOMING CHALLENGES IN DELIVERING COMMUNITY ENGAGED LEARNING FOR PLANNING STUDENTS IN THIRD-LEVEL EDUCATION (1142) .....	1146
TEACHING A NEW MIXED METHOD IN SPATIAL CASE SELECTION THROUGH DEPOLITICIZE OF PLANNING. CASE STUDY: LESS DEVELOPED REGIONS (1144).....	1166
THE BEAUTY OF TRANSITION: AESTHETICS AND INNOVATION IN STRATEGIC URBAN TRANSITION PROJECTS: EXPERIENCES FROM CLASSROOM (1156).....	1182

**TRACK 11: TURBULENT URBAN FUTURES: UNCERTAINTY AND ADAPTABILITY ..... 1205**

THE DISTRIBUTION, CAUSES AND GOVERNANCE OF URBAN SHRINKAGE IN CHINA (1060) ..... 1205

A SYSTEM DYNAMICS APPROACH FOR THE IMPACT OF TRANSIT-ORIENTED-DEVELOPMENT AND COVID-19 ON KAOHSIUNG MASS RAPID TRANSIT RIDERSHIP (1076) ..... 1218

THE IMPACT OF URBAN STREET CANYON MORPHOLOGY ON THE MICROCLIMATE ENVIRONMENT: THE CASE OF THE REPRESENTATIVE BUSINESS DISTRICTS IN SEOUL, KOREA (1091) ..... 1244

A STUDY ON THE URBAN STRUCTURAL CHARACTERISTICS OF CENTRAL LIVING STREET FOR POPULATION DENSITY MANAGEMENT: THROUGH COMPARATIVE ANALYSIS OF NATURAL ORIGIN AND PLANNING CENTER (1101) ..... 1261

SMALL-AREA POPULATION FORECASTING OF SHRINKING CITIES IN SOUTH KOREA: USING SHAP(SHAPLEY ADDITIVE EXPLANATIONS) MACHINE LEARNING (1127) ..... 1277

PLANNING STORMWATER INFRASTRUCTURE FOR MUMBAI (1136) ..... 1299

BEAUTIFUL CITY: PLANNING FOR TRANSFORMATIONS OF THE URBAN LANDSCAPE (1148) ..... 1317

RESEARCH ON THE WORKER COMMUNITY GOVERNANCE TRANSFORMATION AND RESIDENTS' SELF-ORGANIZATION: A CASE STUDY OF PINGDINGSHAN CITY, CHINA (1132) ..... 1332

**TRACK 12: TERRITORIAL GOVERNANCE AND COHESION ..... 1350**

THE TALE OF TWO REGIONS: PLANNING FOR RESILIENCE IN FINNISH REGIONAL PLANNING, DOES PLANNING CULTURE MATTER? (1051) ..... 1350

THE SOCIAL PERFORMANCE OF NATURE IN THREE BRAZILIAN CITIES: TERRITORIAL SYSTEMS AND SOCIAL INNOVATION IN THE HISTORICAL PROCESS OF VISUALIZING AND IMAGINING NATURAL PLACES (1057) ..... 1376

THE THIRD SECTOR AS A NEW URBAN ACTOR IN THE TERRITORIES OF FUNCTIONAL INEQUALITIES (1090) ..... 1393

ECONOMIC POLICY AND SPATIAL PLANNING. THE CASE STUDY OF THE SPECIAL ECONOMIC ZONE (1112) ..... 1410

PLACE IN PLACE-BASED APPROACHES: A FRAMEWORK FOR ANALYSING INTEGRATION, AGENCY OF PLACE, ACTORS AND INSTITUTIONS (1114)..... 1421

TERRITORIAL GOVERNANCE IN MARGINAL AREAS: LEARNING FROM AN INTEGRATED PROJECT FOR LANDSCAPE REGENERATION AND PLACE-BASED DEVELOPMENT IN SOUTHERN SALENTO (1134) ..... 1447

UNVEILING THE PLACE-BASED APPROACH FOR LOCAL TERRITORIAL DEVELOPMENT: OBSERVATIONS IN ONE ITALIAN 'INNER AREA' (1135)..... 1470

**TRACK 13: A MULTIVERSE OF PLANNING THEORIES ..... 1490**

BEYOND THE RHETORIC: PLANNING THEORY IN THE AGE OF TECHNOLOGY (1092) ..... 1490

## TRACK 13: A MULTIVERSE OF PLANNING THEORIES

### BEYOND THE RHETORIC: PLANNING THEORY IN THE AGE OF TECHNOLOGY (1092)

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**Abstract.** Within the animated debate of contemporary Planning Theory, more and more space is (appropriately) devoted to the critical deconstruction of some forms of rhetoric that, collecting vast consent within the public opinions, have been widely used in the field of urban politics and urban planning. What are these rhetorics? How do they take shape?

In an attempt to answer these questions, the paper proposes an exploration articulated on two levels. The first consists in the analysis of rhetoric as an 'epiphenomenon', i.e. ephemeral manifestation of a structural tendency: that is, the return, in the field of social sciences and in particular of spatial planning, of scientism. By addressing the origins of the disciplinary rhetorics as well as the reappearance of scientism, the paper finally reflects on possible implications for Planning theory in the age of technology.

**Keywords:** Planning Theory; Rhetoric; Scientism; Technology.

#### 1. Introduction: Planning Theory, Disciplinary Rhetorics and Scientism. Preliminary Clarifications

Within the animated debate of contemporary Planning Theory, more and more space is conveniently devoted to the critical deconstruction of some forms of rhetoric that, collecting vast consent within the public opinions, have been widely used in the field of spatial planning. Thus: what is meant by 'rhetoric' in the field of spatial planning? The term 'rhetoric' does not intend here to label, in a disparaging sense, a certain line of research rather than a specific theory of planning. Indeed, in the field of spatial planning, rhetoric should be understood as something more than «ornament, display, or 'mere rhetoric' that threatens to reduce all judgments to immediate persuasive effect rather than sound intellectual argument» (Throgmorton, 1991, p. 155). This conception of rhetoric, according to Throgmorton (*ibidem*), would have been overcome by the post-positivist turn:

This traditional view has recently been challenged, however. Throughout the sciences one can detect a broad turn away from positivism, modernism and

objectivity and towards a concern for the ways in which language, discourse, and rhetoric construct society [...] This turn toward rhetoric (in its deeper sense) is connected to a much larger scholarly conversation about post-structuralism, post-positivism, critical pluralism, hermeneutics, and critical theory. (p. 155).

In the light of this turning point, which – within planning theories – is usually associated to the rise of the communicative-collaborative planning (Fischer and Forester, 1993; Healey, 1997), rhetoric takes on a very different meaning. Associated with the concerns for democracy and participation, rhetoric is understood as «persuasive discourse within a community or honest argument directed at an audience» (*ibidem*). If this conception appears consistent with the post-positivist framework, on the other hand it should be emphasized that today disciplinary rhetoric has taken on a very different function (and purpose). More than being a tool, or a technique, within a discursive process, today's rhetoric (in the variegated forms that we will try to describe later) has become part of a vaster and more profound change: that is, the return of scientism in the field of spatial planning. I speak of a 'return' because the idea of an 'urban science' (Batty, 2010, 2012, 2013) dates back to the 1960s, at the time of the so-called «Systems Revolution» (Hall, 2014):

[F]or the first time, the engineering-based approach invaded the professional territory of the traditional land-use planner. Spatial interaction models [...] became part of the planner's stock in trade. [...] This involved more than a knowledge of computer applications – novel as that seemed to the average planner of the 1960s. It meant also a fundamentally different concept of planning. Instead of the old master-plan of blueprint approach, which assumed that the objectives were fixed from the start, the new concept was of planning as a *process* [...]. (p. 395).

This paradigm shift, while facing significant criticisms – especially in relation to the efficacy of *systems analysis* (Rittel and Webber, 1973; Wildavsky, 1973) – has nevertheless produced its fruits. In certain lines of research, in fact, the idea of the discipline as a science has never been abandoned and indeed has largely consolidated. This is the case, for example, of transport planning: the first applications of system analysis, as documented by Hall (2014), were experimented by Robert Mitchell and Chester Rapkin in the prediction and management of urban traffic patterns (p. 394).

So what is it that makes today's scientism, assuming that this phenomenon can be so labeled, different from what has already been experienced? To answer this question, I think it is appropriate to distinguish the *phenomenon* from the *epiphenomenon*. That is: if it is true that «the return to scientific, positivist and technocratic conceptions is there for all to see, as also demonstrated by the complex events surrounding the definition of the Recovery Fund» (Pasqui, 2022b, p. 38), it follows that among this, let's say 'structural', trend and the above rhetoric there is some connection. My hypothesis is that returning

scientism is the original *phenomenon*, the structural tendency irreparably linked to the affirmation of technoscience as a dominant force (Severino, 2021). Differently, disciplinary rhetoric represents the *epiphenomenon*: the spread of imaginaries – some of which are unexpectedly ancient (Cugurullo, 2018) – which simply reflect the aforementioned structural trend. Nothing more than an ephemeral emanation, so to speak, of the original phenomenon. It should be specified that the understanding of rhetoric, according to such methodological approach, implicitly accepts the complexity of the issues at hand. The comprehension of the epiphenomenon (the rhetoric) is made possible, and enriched, by the study of the structural phenomenon (the scientific posture), as deeply related to both the civilization of technics and the rise of specialisation as «the spirit of our time» (Pitari, 2019, p. 367). Obviously, in between this two major fulcrums, disciplinary rhetorics should be associated to the complex array of economic, technological and political interests revolving around contemporary urban development processes.

One could object: given this premise, what is the advantage of studying disciplinary rhetoric? If the phenomenon on which they depend is scientism, why not directly question the reasons behind this tendency? The answer to these legitimate objections is the following: rhetoric, in itself, is of little interest if disconnected from the underlying trend. But it is equally true that rhetoric, especially those connected to the idea of *smartness*, have been able to create a new language (Palermo, 2022, p. 150). And spatial planning often relies on new languages through which it can reinvent itself: «[indeed] planning as a discipline is constantly reinventing itself and thus creates public acceptance at the expense of a clearly defined intellectual basis, what might be seen as disadvantage for a scientific justification as a discipline» (Behrend and Levin-Keitel, 2020, p. 310).

Trying to recognize and ‘unmask’ rhetoric is therefore a priority. Today, unlike half a century ago – when the claim to create an ‘urban science’ proved to be rash and perhaps premature – the conditions would make possible «[the] achievement of a true urban science, an objective that has always been missed, [but] which now would be rehabilitated by a set of technological operations and procedures, which moreover were inspired by marketing questions and logics» (Palermo, 2022, p. 151).

Accordingly, behind the advertising *patina*, behind the economic and technological interests that feed the disciplinary rhetorics, behind the vast literature supporting the scientific drift, there is hidden a big ‘unsaid’. What is behind the rhetoric? Scientism as a new disciplinary positioning. And what does this structural trend depend on? What is the consequence, in terms of efficacy, transparency, process accountability, of the pervasive use of this scientific posture? As documented by a vast literature, the outcome (already experienced) of a scientific and technocratic drift in spatial planning is depoliticization (Swyngedouw, 2007; Allmendinger and Haughton, 2011; Gualini, 2015; Legacy et al., 2019). But it only represents the prelude to a far more disturbing scenario: that of a (for

now only imaginary?) *Leviathan-city*, where mass surveillance and the collection of big data would make it possible to create that society of control (Deleuze, 1990; Zuboff, 2019) for years only fantasized. A dystopian future to which, on the other hand, irenic scenarios are continually juxtaposed: «The images of the future of the digital city (or society) continue to oscillate between hyper-technological representations, where technology is recognized as undoubted primacy, and vague utopias or suggestions that promise benefits for everyone in a post-political society» (Palermo, 2022, p. 151).

The implications for planning theories are, of course, manifold. An in depth exploration of the difference between the *epiphenomenon* (rhetoric) and the *phenomenon* (the scientific posture) will provide further elements of reflection useful for pondering the implications for planning theories 'beyond the rhetoric'.

## **2. Exploring the Epiphenomenon: Digital Urbanism, Smart City and the Society of Control**

In general terms, the first and perhaps most pervasive of the disciplinary rhetoric is 'digital urbanism'. As Vadiati (2022) argues, the diffusion of this model cannot but be compared to the (steadily increasing) presence of tech companies in urban development processes:

The ever-increasing presence of large digital companies (LDCs) for the application of information communication technologies (ICTs) in urban development has been gaining the attention of digital geographers. In broad brushstrokes, the ubiquitous appearance of large development companies in urban development has been considered disingenuous. [...] large digital corporations in cities have diffused a belief about urban digitalisation, which holds that the application of information and communication technologies (ICTs) is a cure-all for today's cities' many pressing problems, and that LDCs are the only ones capable of collecting, producing and applying urban data, by which they justify the commodification of urban data and their lucrative opportunities. (Vadiati, 2022, p. 2).

The issue is undoubtedly complex. Beyond the veil of rhetoric – that is: (self)promotion, for marketing purposes, of the solutions advertised by the LDCs – what emerges is the hegemonic role played by IT companies, «who construe urban politics as a technical issue and circumvent planning with software- based data processing» (Krivy, 2018, p. 13). To what is this position of power due, with respect to the role of local administrations? According to Vadiati (2022): «the governance capabilities of local and state-based agencies are relatively limited due to privatization agendas, which has left many local governments with limited capacity to access and make use of large quantities of urban data» (p. 2). This condition would promote, more or less implicitly, the diffusion of «post-political urban policy agendas» (*ibidem*). More specifically, LDCs «[are] endorsing this

existing post-political mode of urban governance» by draining «public institutions of time and resources» (*ibidem*). The final result would be a reconfiguration of the relations between state and society, remodeled on the basis of a technological paradigm in which the very production of space is in the hands of large tech corporations. In fact, they have control «over a newly ubiquitous form of digital abstract space» over which they exercise a peculiar form of dominion: the collection of urban data. «In this capacity», as Vadiati (*ibidem*) underlines «they have now joined – and in some cases, perhaps even superseded – the ranks of urban planners, developers and landlords from Lefebvre's era in terms of their power over the city [...]».

Within the framework of digital urbanism, Smart City (SC) is probably one of the most widespread (and powerful) narrative. However, this should not be misleading: the imagery that feeds the rhetoric of SC, as already underlined, has deep roots that date back to the dawn of modernity. Federico Cugurullo (2021) provides an account of this, by reconstructing the origins of the Smart City imaginary, starting from a significant observation:

The theoretical underpinnings of smart urbanism are considerably older than what present smart-city initiatives suggest. The smart-city phenomenon is composed of images of modern, high-tech and futuristic cities which seek to leave history behind in the attempt to look novel. [...] [Nevertheless] Like its historical predecessors, the smart city continues to profess and practise a universal credo of modernization [...] Visions of smart cities are [in fact] visions of cities perfected by technology, sustainable societies whose endless needs are fulfilled by endless technological innovation. (pp. 60-61).

It is difficult to remain indifferent to the promises of smart urbanism: it portrays an irenic scenario, in which sustainability and the fight against climate change would be guaranteed by an unprecedented technological breakthrough. What is interesting to note, in this case, is that the unshakeable faith in technology – in an almost eschatological conception – goes back in time, even as far back as the 17th century:

[...] the origins of the smart city can be traced back to Francis Bacon's *New Atlantis*. Published in 1627, Bacon's utopian novel contains what are arguably the first images of an experimental city permeated by technology, where technological innovation is actively employed to produce information about the natural and the built environment. [...] this information is, in turn, employed to rationalize and control the environment (intended as the totality of the surrounding conditions) for the development of human societies. (Cugurullo, 2021, p. 48).

The reference to Bacon's work is significant for at least two reasons. The first: it bears witness to the typically modern conception of science and technology (today one should speak of 'technoscience') as means «through which nature can be controlled and

subjected to human needs» (*ibidem*, p. 49). It is precisely this credo – the faith in technology – that makes the evolution of the Smart City imaginary possible. Herein lies the second element of interest: the relationship between technological innovation and urban development, sanctioned by the birth of the modern scientific method, has in fact influenced the future development dynamics of cities. According to Cugurullo (2021), the Second Industrial Revolution represents the first of the two key moments of this evolution:

During the years of the Second Industrial Revolution, from the late nineteenth century throughout the early twentieth century, scientific research and technological innovation were largely supported by capital investments. The logic of profit had just married the logic of mass-production: a union meant to maximize the return on investment. [...] These factors, coupled with novel devices of mass-distribution, led particularly in the United States and Europe to a pervasive diffusion of new technologies which became part of the everyday life of cities, thereby influencing their design and experience. (p. 50).

If this first peak, in terms of connection between science, technology and industry, exerted crucial consequences for urban development in the first half of the 20th century (Cugurullo provides two major examples: steel, which allowed the construction of the vertical city; the automobile, and its impact on urban growth with the emergence of suburbanisation), is the second one – closest to us – to represent an unprecedented turning point:

In the 1970s, with the invention of computers, ICT reached a tipping point that was going to have a profound, but not immediately visible, effect on cities. This is the second burst of modernity in the conceptualization and development of the city, crucial for the understanding of smart urbanism [...] [At the time] the convergence of micro-electronics, computing, telecommunications and broadcasting was paradigmatic because of the high degree of pervasiveness of the technological changes in question. (Cugurullo, 2021, p. 55).

Nonetheless, it is only today – in the age of smart (digital) urbanism – that the effects of this ICT revolution can be observed in their full extent. Through the collection of large quantities of data (Big Data), the premises implicit in the Network Architecture theorized by Castells (2011) – and recalled by Cugurullo himself – have become reality. And the most severe consequences undoubtedly concern the (direct and indirect) organization of life in the times of ‘surveillance capitalism’ (Zuboff, 2019). Here what Vadiati (2022) argues:

Regarding this thesis, large tech companies have a predatory approach to collecting data, enabling them to predict citizens’ behaviour and facilitate algorithmic governance for city governments. [...] Further, she [Zuboff] raises concern that computing and commodifying behaviour data is going beyond just interfering with our behaviour in our everyday lives, to determining and redirecting desirable and

undesirable ways of living. (p. 3).

These are widely shared criticisms (see, for example: Kitchin, 2014; Sadowski, 2021), especially in relation to the intrinsic risks of platform urbanism (Graham, 2020; Bauriedl and Struver, 2020; Leszczynski, 2020). The latter, far from being a phenomenon in its own right, should be understood as an emerging (re)configuration of the SC: «The platform-mediated city does not so much constitute a radical disjunction with the smart city, but rather a reconfiguration, diversification, and intensification of its constituent practices, processes, and technologies» (Leszczynski, 2020, p. 193).

The recent research work dedicated to this new evolution of ‘smartmentality’ (Vanolo, 2014) seems to confirm the starting assumption. That of smart urbanism, declined in the forms that have been described here, is a largely: «vacant rhetorical device able to be filled with any number of comparable or conflicting definitions; all cities wanted to be perceived as “smart”, since the corollary was to appear “dumb”» (Wiig, 2016, p. 547). To oppose this ‘empty rhetoric’, therefore, it is necessary that academics «[...] follow smart city initiatives into the city, beyond the policy discourse. Critically engaging with the smart city necessitates considering the longer process of technologically driven, entrepreneurial economic development as well as digitally driven civic engagement, looking past a policy’s script and onto the actions circulating around the policy’s implementation» (*ibidem*, p. 549).

In addition to all this, it is a priority for academics and planning theorists to study the structural trend that precedes and, to a certain extent, determines the appropriation, by the disciplinary discourse, of the rhetoric of smartness and digital urbanism. Therefore, it is a question of understanding the reasons for the return to scientism.

### **3. Exploring the Phenomenon: Scientism and the Planning Discipline**

Discussing scientism in the field of social sciences implies, as a first step, the need to clarify its meaning. Hence: what is meant by scientism? A particularly sharp and compelling understanding of the phenomenon, in reference to the meaning of the term as to its use, is provided by Friedrich von Hayek (1942). The implications of Hayek’s theories for spatial planning research and practices have been widely explored in the literature (Moroni, 2005, 2007, 2014, 2018; Alexander, Mazza and Moroni, 2012). What is recalled here, instead, is the peculiar ‘anti-scientistic’ approach theorized by Hayek in the early 1940s (Hayek, 1942, 1943) – and then resumed in a later work (Hayek, 1952). Here, his definition of scientism’s lineage and meaning:

[...] to preclude any misunderstanding on this point we shall, whenever we are concerned, not with the general spirit of disinterested inquiry but with the slavish imitation of the method and language of Science, speak of “scientism” or the

“scientific” prejudice. Although these terms are not completely unknown in English, they are actually borrowed from the French, where in recent years they have come to be generally used in very much the same sense in which they will be used here. [...] these terms [...] describe, of course, an attitude which is decidedly unscientific in the true sense of the world, since it involves a mechanical and uncritical application of habits of thought to fields different from those in which they have been formed. (Hayek, 1942, p. 269).

Being an essay dating back to the early 1940s, Hayek’s words are striking for their relevance. Even then, scientism was appropriately labeled as «a very prejudiced approach which, before it has considered its subject, claims to know what is the most appropriate way of investigating it» (*ibidem*).

The quantitative approach is the dominant element of contemporary scientism, especially in the field of spatial planning: in what terms can it be defined, following Hayek’s definition, as ‘prejudice’? For the sake of clarity, let’s firstly pause on the true purpose of the quantitative method within sciences:

There is the widespread impression that the main importance of this quantitative nature of most natural sciences is their greater precision. This is not so. It is not merely adding precision to a procedure which would be possible also without the mathematical form of expression – it is of the essence of this process of breaking up our immediate sense data and of substituting for a description in terms of sense qualities one in terms of elements which possess no attributes but these relations to each other. It is a necessary part of the general effort of getting away from the picture of nature which man has now, of substituting for the classification of events which our senses provide another based on the relations established by systematic testing and experiment. (Hayek, 1942, p. 275).

The quantitative approach is therefore not necessary for the sciences to define themselves as such (given that it would be a question of adding a ‘form of mathematical expression’ to a procedure that does not require it), but it is crucial in defining the purpose of the sciences: «its aim is to produce a new organization of all our experience of the external world and in doing so it has not only to remodel our concepts but also to get away from the secondary sense qualities and to replace them by a different classification of events» (*ibidem*).

Therefore, denouncing the return to a scientific posture in the field of spatial planning does not mean fueling a generalized distrust of quantitative techniques. The point under discussion is another, and concerns the meaning of scientism as understood by Hayek. Concisely: scientism, in the context of social studies, indicates the ‘collectivist’ tendency through which a certain ‘whole’ is considered as a ‘given’. Herein lies the first misunderstanding:

Social wholes are not given to us as what we may call “natural units” which we recognise as similar with our senses [...] They are not given to us as similar things before we even begin to ask whether what looks alike to us also behaves in like manner [...] What we group together as instances of the same collective or whole are [indeed] different complexes of individual events, in themselves perhaps quite dissimilar, but believed by us to be related to each other in a similar manner; they are classifications or selections of certain elements of a complex picture on the basis of a theory about their coherence [...] the wholes about which we speak [therefore] exist only if, and to the extent to which, the theory is correct which we have formed about the connection of the parts which they imply and which we can explicitly state only in the form of a model built from those relationships. (Hayek, 1943, pp. 43-44).

Here scientism can therefore be described as the claim, in the field of social-spatial sciences, to describe social phenomena as a ‘given’, ‘wholes’ that can be observed and studied by gaining «a distant and comprehensive view in the hope that thus regularities will reveal themselves which remain obscure at a closer range» (*ibidem*, p. 46). According to Hayek, this conception goes back even to the founder of sociology, Auguste Comte (*ibidem*). This is the same methodology at the basis of positivist philosophy. This philosophy, belonging to Empirism (Davoudi, 2012; 2015), profoundly influenced the formation of planning as an academic discipline and as a professional practice, in the first decades of the 20th century (Pacchi, 2018; Signoroni, 2022).

What we are witnessing, with the return to the scientific posture, is therefore the reaffirmation of a neo-positivist epistemology that treats the city as a set of ‘wholes’ (or a single ‘whole’) controllable in every dynamic. But the most alarming aspect is another: by conceiving a complex social phenomenon, such as the city, as a ‘whole’, the use of the aforementioned disciplinary rhetoric is made possible – and strengthened. If it is true, as Shannon Mattern (2021) reminds us, that «a city is not a computer», it is equally true that in the public discourse as well as in the academic debate, the predominance of references to the ‘resilient city’, rather than the ‘sustainable city’ or the ‘smart city’ is still widespread and very strong.

The reappearance of scientism, in the characteristics just described, constitutes an undoubted regression, especially if considered in relation to the phenomenon of academic hyper-specialisation (Campbell, 2014; Montedoro and Pasqui, 2020; Signoroni, 2022). How is the city conceived, studied and designed today? Each branch, each sector works, processes data and models in relation to a specific part, however considered a ‘whole’ in its own right. Once again, it is not a question of mistrusting a set of quantitative analysis techniques, which have already been subjected to more than persuasive criticisms (Palermo, 1992); rather, it is important to look at the bigger picture. The conjunction between scientism, specialisation and rhetoric configures a not much

reassuring scenario: de facto, a surrender to the post-political condition that has been denounced for years. Added to this, the alleged scientific nature of the discipline – supported, perhaps, also to remedy for the historical and chronic rivalry with engineering and architecture (Davoudi, Pendlebury, 2010) – can only appear as instrumental. Even the embarrassing «confusion between the collection of big data and the production of science», as Palermo denounces (2022, p. 152), is perhaps a symptom of an instrumental (and short-sighted) conception of technology. In conclusion: spatial planning has long since surrendered to the scientific posture, regressing to a merely quantitative and procedural conception of the discipline. In line with the spirit of the times, in the age of technology, planners would aspire to use the technique available as a means of achieving the ideal of smartness, but in reality – by working towards this, according to an instrumental point of view – they do not other than consolidating the post-political scenario.

In the end, one can only agree with Pier Carlo Palermo's discouraging observation: «I fear that the *smart* trend could be read, in some time, as a sort of speculative bubble, which arose from reasons and projects worthy of attention, of a technological and economic nature, but that found too trivial urban and town-planning developments, out of impatience, lightness or instrumentality. The development of technology is not enough, if the idea of the city, of project and of politics is weak» (*ibidem*).

#### **4. What Implications for Planning Theory? Some Partial Considerations**

There is nothing wrong with the attempts to improve the knowledge base of planning. What *is* problematic is that evidence is often understood as synonymous with facts, [...] This view perpetuates the Geddesian dictum of 'survey before plan' and assumes a linear and unproblematic process that begins with the collection of often descriptive data and ends with a blue print. (Davoudi, 2015, p. 317).

In the history of planning as a discipline, the pernicious effects of scientism have already been widely known, studied, criticized but only partially abandoned. The new, powerful affirmation of a neo-positivist epistemology should lead planning academics to a (self)critical reflection on the value of knowledge within the planning process. More precisely, and taking up the epistemological criticisms of technocratic planning model (Pacchi, 2018), planners should question themselves about the nature of the knowledge brought into play. Solicited from this point of view, planners could then take refuge in the argument pointed out by Davoudi (2015): since, in the light of the 'evidentialist' turn of planning, «plans are considered 'sound' if they 'are founded on a robust and credible evidence base'» (*ibidem*, p. 316), what is needed – and used – is the pure technical knowledge. Given that this epistemological paradigm, in which knowledge plays a merely instrumental role, is consubstantial with scientism, it is definitely necessary to change

perspective.

A first possibility, as suggested by Davoudi (*ibidem*), would be that of «articulating knowledge and action as recursively interlinked rather than considering the former as a precondition to, or coming before, the latter in a linear, causal chain» (*ibidem*, p 317). This approach is based on the awareness that «facts and information are not in themselves evidence; they become evidence when they are used in conjunction with other information to prove or disprove a proposition» (*ibidem*, p. 318). Unlike scientism, this approach takes into account the criticisms of technocratic and rational-comprehensive planning. Overcoming the Aristotelian conception of epistemic knowledge is, in this sense, the first step towards a theory of planning capable of recognizing that «the goal of knowledge is less about explaining and predicting social events and more about understanding what the social world means for the people who live in it» (*ibidem*, p. 320).

It is, precisely, the opposite of what the scientific posture foresees: instead of using it to merely perform forecasting – moreover, in conditions of radical uncertainty (Pasqui, 2022a) –; knowledge should guide action, on the basis of an understanding of the social world. Technology can play a key role within these processes of co-production of knowledge. Provided, of course, that the instrumental logic that so much distinguishes scientific rationality is left aside. Within a conception of planning as a practice of knowing, technology is no longer a means to implement certain goals, or to predict certain developments; rather, it becomes a *means of knowledge*, for both experts and citizens; but also of contestation and reaffirmation of the political.

For a theory of planning that intends to go beyond rhetoric and beyond scientism, the first objective is to overcome the bifurcation between theory and practice, between knowledge and action that is implicit in the neo-positivist paradigm. Doing this means recognizing that, in the age of technology, spatial planning can be practiced as a mere ‘procedure’ – aligned with the profit logic of techno-capitalism, but ‘emptied’ of any political meaning – or as a practice of knowing, situated, collective and distributed, but also contested (Davoudi, 2015). It is the uncertain road towards the reconquest of the *polis* (Swyngedouw, 2007). Here, then, are the two models: the *New Atlantis*, the Leviathan-city that is taking shape as a society of perennial control, and the *Polis*, not to be built but to be repoliticised.

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