The Urban Biome: Greening the City and the Regenerative Role of the Citizen Practitioner

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ABSTRACT

In the context of climate change, an explosive world population, exponentially increasing rates of urbanization, as well as, environmental and infrastructural degradation, challenges that were once confined to the realm of environmental and social scientists are now of primary concern for urban planners, as well. It has become increasingly clear, in the last decade, that our responses to those challenges are neither sustainable nor realistic, moving us away from the rhetoric of 'sustainability' towards effective and meaningful 'regeneration'. In this perspective, the notion of the Urban Biome, with its holistic and balanced perspective of life in urban regions, is essential for effective and meaningful urban planning responses that are grounded in modern day reality. Central to that notion is the concept of the "citizen practitioner" which reverses the conventional hierarchy that dominates municipal planning and policy-making bodies, where decision making authority resides with elected officials and technocrats with little input, in the form of direct citizen engagement, from individuals in that region and their communities. This paper calls for aligning bottom-up citizen practitioner engagement with responsive approaches utilized by planning and decision-making bodies towards regenerating our Urban Biomes.

Keywords: *Urban, culture, engagement, climate-change, citizen-practitioner, urban-regeneration, sustainability, Phronesis*

INTRODUCTION

Cities around the globe are seeking to redefine their roles as centers of human settlement and urban engagement amidst a crisis of global climate change and social, economic and political upheaval. Cities are not isolated entities exercising their sovereignty in a vacuum devoid of other communities. They are a part of regional, national and global networks of widely varied communities encompassing not only their human inhabitants but also a multitude of fauna and flora native to each community and sharing its environment.

Susan L. Woodward[1] 2004, a Geographer at Radford University explains, "The biome concept embraces the idea of community, of interaction among vegetation, animal populations, and soil. A biome (also called a biotic area) may be defined as a major region of distinctive plant and animal groups well adapted to the physical environment of its distribution area." (Woodward[1] 2004) "Human-Dominated Biomes" as Woodward[1] calls them or Urban Biomes, as they are commonly known, are holistic environments comprised of cities and the urban regions surrounding them.

Park[2] 2005 posits that six out of ten of the world's most populated cities are located on estuaries; sensitive environments were seawater meets freshwater that are subject to tidal flooding and seasonal fluctuations. These Urban Biomes worldwide have been the stage for environmentally damaging commercial and industrial operations as well as the incubator for much of the world's economic development strategies.

An emerging sentiment that accompanies the tide of urbanization sweeping the planet is the need to re-examine our most basic assumptions about what it means to be an urban dweller and what defines an urban community, nurtures it activities and invigorates its sense of place and engagement with other urban communities around the globe. A vital difference that marks this current cycle of debate and reflective discourse from previous ones within the long history of urban settlement is its global scale, the concentration of the majority of the world's population in urban centers and the almost universal reach of industrialization in all aspects

of their lives.

One point of consensus that emerges in such debate, however, is the need for alternative approaches or worldviews to the traditional dominant paradigm espoused by the majority of industrialized countries today and exemplified in their urban centers worldwide. The World Bank, the International Monetary Fund and the G8 Summit are advocates and practitioners of this traditional approach of economic development. Their detractors have characterized this approach as being devoid of relevant context, lacks direct citizen input in the formation of policies that affect their daily lives and is heavily dependent on instrumental rationality and fossil fueled technologies to maintain its practices.

METHODS AND SCOPE

The scope of this paper is to introduce and explore an alternative to this traditional worldview, a new approach for implementing environmentally responsive planning and policy strategies throughout municipalities and urban centers.

This hands-on approach calls for integrating municipal environmental regulations and goals with environmental design criteria and environmental awareness incentives and education programs. Rather than responding like a dysfunctional family to environmental disasters after they occur and in ways that isolate the intervention from positive outcomes for the entire urban environment of a city, this approach calls for greening the city on a daily basis and through every facet of its infrastructure. The approach utilizes a qualitative practice-based research methodology in which textural analysis of papers harnessed by meta-research analysis is employed, (See Schaban-Maurer[3] 2013). The approach's aim is to invigorate urban communities and address their emerging areas of concern, such as: urban sprawl, environmentally insensitive development, and lack of effective citizen participation. At the core of this approach lie the concepts of value-rationality, context and praxis, the three principal components of phronetic research. *Phronesis,* (also known as Practical Wisdom) was originally introduced by Aristotle[4], who considered it to be the third branch of knowledge, involving meaningful knowledge, and context dependent judgment that reaches far beyond scientific knowledge (episteme) and technical knowledge (techne), the other two branches of knowledge. Another concept that is central to this approach is Schaban-Maurer's[5]

notion of the "Citizen Practitioner". This concept is derived from a dynamic definition of the concept of *Phronesis* as it is applied to environmental policy formation at the local government level and in the context of citizen participation in greening the city. On a regional or municipal scale, the emphasis would be on the role of land dwellers as individual "citizen practitioners" whose life experiences and practical knowledge of their respective dwellings and the land it occupies shapes their community participation and development in greening their city. Schaban-Maurer[5] posits that such a community of grassroots' "citizen practitioners" can have a positive impact in guiding their city towards a more enlightened environmental policy.

On the scale of professional organizations, architecture firms and research institutions, the role of clients in project facilitation, patronage and sponsorships is guided through collaborative partnerships through all phases of design, development and implementation. Citizen participation, on this scale, manifests itself as both an individual endeavor and as a group initiative.

GOALS AND OBJECTIVES

The main objective of this paper is to analyze the feasibility and flexibility of the concept of Phronesis as it influences the interaction between individual citizens and their local governments. It also examines the effects such an interaction may have on environmental policies that govern local urban biomes. Such an application of the concept of *Phronesis* in defining the role of the citizen practitioner may lead to a more effective partnership between local governments and their citizens in shaping environmentally responsive policies. Such policies may be articulated in context-dependent environmental strategies coupled with environmental education.

Such environmental strategies would exemplify the phronetic approach by employing, in part or as a whole, the three main components of *Phronesis,* namely, value-rationality, context and praxis. The aim, here, is to enrich current environmental research methods in the fields of architecture, planning and urban design as well as those in policy design with effective tools and responsive methodologies that may lead to meaningful knowledge and satisfactory implementation of findings in those fields. In other fields, such as operational research, risk management and the medical field, variants of phronetic research components have been employed with increasing levels of success. The

lessons learned in those and other practice-based research studies and participatory community-development research programs may add credence and momentum to the environmental strategies that are embodied in this approach.

This paper presents the life-experience vernacular narratives of ordinary citizens and their representative professionals in an exchange of locally acquired place-knowledge, as a new method of communication and regeneration of urban biomes.

Framed within a North American cultural context, it is a critique of the Western world's preoccupation with a universal conception of science in the Kuhnian tradition, as a presumptively effective means of achieving standardized and universal civilization. The work is essentially a direct participatory approach to urban regeneration that goes beyond conventional sustainability, challenging the dominant normative values of traditional architecture, urban design and planning and other professions in the shaping of urban biomes, through a shift in perspective that takes place at the individual level of participation.

The presented research articulates a means for achieving relevant and effective communication between stakeholders engaged in the production of context-dependent knowledge, as well as a means for shaping project-specific policy actions within applied scientific disciplines such as architecture, urban design, planning, medicine, and engineering. In doing so, it juxtaposes domains in which authority, knowledge, and decision-making are dominant factors. Within such a framework, all technical, ethical, and political debates are predicated on the kind of relationships that allow for the formation of individual perspectives. Through such relationships, consensus may be reached and beneficial outcomes achieved that are founded upon individual contributions rather than abstract group representations.

PROBLEM DEFINITION

Effective citizen participation outcomes can only be realized through meaningful forms of participation. Most citizen participation programs ignore this reality. Such ignorance of the centrality of value to the participation concept has resulted in confusion over the meaning, expectations, cause, and effect of relationships between participation programs and societal goals. Studies cited in this paper suggest that previous efforts to improve the

effectiveness of citizen participation have often failed. In some cases, this has been due to poor planning or execution. Other efforts may have failed because administrative systems dominated by conventional notions of expertise and professionalism leave little room for participatory processes. A major obstacle to citizen participation/engagement is that professionals and decision-makers have difficulty accessing and hearing what citizens have to say. This is perhaps a result of the fact that their professionalization and specialization can lead expert to believe that non-experts have little or nothing to contribute.

Work done in various fields suggests that current citizen engagement research and sustainability efforts suffer from a lack of awareness that value, context, and praxis play important roles in making citizen participation meaningful (see studies by Rosener[6] 1978; King, Feltey, and Susel[7] 1998; Yang and Callahan[8] 2005; and Petersen, D, Minkler M, Vásquez V, Baden A.[9] 2006). In addition, although most of the research studies from the targeted disciplines highlight the usefulness of soliciting the input and participation of citizens at the beginning of programs and projects, they conclude that this is rarely done as Yang and Callahan[8] stipulate. These studies also show that lack of trust between stakeholders, leads to disagreements over goals and objectives. As a result, citizen input is not integrated into architecture, urban design, and social policy. By contrast, considerations of value, context, and praxis represent the strengths of phronetic research and the depth and variety of its rich historical traditions. Within these forgotten— and, at times, misapplied—traditions we can find relevant approaches to the challenges facing citizen participation/engagement in the fields of architecture, urban design and planning.

Yang and Callahan[8] conducted a survey of 428 municipalities in the United States to address the shortcomings of the methodologies utilized by local governments in their citizen participation efforts. Their results indicate a lack of emphasis on value, an absence of will to solicit and utilize direct local knowledge from residents, and an overemphasis on quantifying measures and indicators. The authors explain, "We find that although conventional citizen participation methods are consistently used by many governments, broad-based and individual-based methods are utilized less frequently" (18); they also note, "Governments in large communities

are found to be more likely to promote citizen involvement activities than are governments in smaller communities" (18).

The Phronesis-based approach proposed by this paper as a means of achieving effective and meaningful urban regeneration through direct citizen engagement relies on the findings of prior meta-research analysis work done by Schaban-Maurer[3], in which integrative, methodological, historical and theoretical literature reviews of more than four decades of studies on citizen engagement in policy, across multiple fields and disciplines that bear on Phronesis and sustainability, including the work of Altshuler[10] 1966; Altshuler A, Luberoff D[11] 2003 ; Chong[12]1991; Fischer[13] 2000; Schneider A. Ingram H.[14] 1997; Schneider A. Ingram H.[15] 2005; Lindblom[16] 1959; Lindblom C. Woodhouse E.[17] 1993; Roberts[18] 2004, and other influential citizen participation researchers.

LOCAL REGENERATIVE GREENING STRATEGIES FOR THE URBAN BIOME

According to Twiss J, Dickinson J, Duma S, Kleinman T, Paulsen H, Rivera L[19] one such strategy is the introduction of community gardens attached to existing neighborhood school networks along with environmental science workshops, aimed at educating and empowering citizens and their school-age children to apply sound environmental stewardship to their homes and properties. There exists a multitude of other environmental strategies that municipalities can choose from, depending on the context and particular urban characteristics of that municipality and its residents. In order to succeed, all such strategies must be coupled with implementing environmental accountability and incentives for citizens to green their individual properties, as well as encouraging environmentally responsive forms and regenerative technologies for newly built structures throughout the city.

This strategy, as well as other environmental strategies, can accommodate the concept of *Phronesis* with varying degrees of success, depending on the prevalence of universal assumptions and the degree of empirical control that the adopted strategy of a municipality requires of its findings. The further such findings are removed from their context, the more prevalent is instrumental rationality in its set of assumptions and the more pressing is the need for the concept of *Phronesis* to intervene in such an environmentally degenerative strategy.

RESULTS AND DISCUSSION: ENVIRONMENTAL IMPACT OF PHRONESIS ON THE URBAN BIOME

The Aristotelian concept of Phronesis, which is often translated as "practical wisdom or prudence," gives the social sciences insight into the human condition that is far superior to that offered by e*pisteme* and *techne*. In Aristotle's[4] own words, *Phronesis* is a "true state, reasoned, and capable of action with regard to things that are good or bad for man." (1140) *Phronesis* involves practical knowledge and context-dependent judgment that reaches far beyond scientific knowledge (*episteme*) and technical knowledge (*techne*).

Aristotle[4] valued *Phronesis* above the other virtues because he saw its core component, value-rationality, as a necessary balance to instrumental rationality and concluded that its lack would jeopardize the quality of life of the citizens in any society. Aristotle's[4] view of the individual's role in nature was embedded within his pronouncements about *Phronesis*. Flyvbjerg[20] 2002 explains "The study of human activities, according to Aristotle, demands that one practice *Phronesis*, that is, that one occupy oneself with values as a point of departure for praxis." (70) In contrast to Plato and Socrates who favored general standards and universals, Aristotle[4] assigned a leading role for context in understanding human behavior. Aristotle's vision is similar in its emphasis on experience and the particular to the Dreyfus model, Flyvbjerg's proposal of a phronetic social science and Bourdieu's theory of practice.

The application of the Aristotelian concept of *Phronesis* is embedded within the context of environmental ethics in order to highlight the need for prudent and regenerative environmental policy guidelines. Such prudence may steer future policy makers into shaping policy rooted in context, through value-rational dialogue and allow individual policy makers to utilize their own life experiences in the process of shaping such policy. Today, more than ever, there is a need for such a dialogue to discuss and answer our society's most pressing needs, from environmental challenges to sociopolitical and environmental inequity. Value-rationality, in context, utilizing practical knowledge and individual initiative in shaping regenerative environmental policy may help stem the tide of destructive impulses in our society towards ourselves and towards our environment at large.

Flyvbjerg[20] informs us that phronetic researchers seek input to questions regarding the construction and consequences of structural elements influencing individual actions. This is the intention of this paper as well; to delineate the phronetic structure of social discourse in order to produce input from individual citizens that contributes to the current social dialogue. Rather than seek to dominate it with a single voice, instead be "included in, polyphony of voices, with no one voice, including that of the researcher, claiming final authority" (139). "Citizen Practitioners" who acquire their expertise through the application of their individual life experiences through daily interaction with their immediate environments and because of exercising prudent value judgments.

Insights gleaned from the work of contemporary environmental writers may help to delineate the phronetic structure of social discourse and anchor it in an environmental context. Haughton G, Hunter C[21] in their work *Sustainable Cities*, remark on the sparseness of the debate on planning sustainable cities. The authors state "This lack of debate may in part reflect the disdain with which cities have long been regarded, with commentators from the nineteen century to the present day challenging the very basic premises of urban living, demanding a more rural life style, a return to nature." (10) The authors contend "From this perspective, cities are almost inherently undesirable in environmental terms, not just because they are polluted, degraded places in which to live, but because they are held to distort rural economies and foster lifestyles which are energy-intensive and remote from contact with nature." (10)

This view of urban living reflects at its core the desire to live in harmony with nature, and calls for prudence to guide human behavior towards a middle path devoid of extremes of behavior. Ethics reside at the heart of the environmental debate as it does in *Phronesis*. It would seem that bringing *Phronesis* back into the fold of our quest for knowledge could not have happened at a more opportune time. Phronetic research is perfectly suited for moderating our response to nature, with its emphasis on prudent action in context with our surroundings.

Martinez-Alier[22] in her work *Urban 'Unsustainability' and Environmental Conflict* asks pertinent questions regarding the internal and external effects generated by cities. The author asks "What are the internal environmental conflicts in cities, and are they sometimes successfully pushed outwards to larger geographical scales?" (104) The author makes a further observation when she states "It would seem that the more prosperous a city, the more successful it is in solving internal environmental conflicts, and also in displacing environmental loads to larger geographical scales" (104). The author, in expressing this latter observation, reinforces the point made by Haughton and Hunter[21] previously, concerning the distortion effect on rural economies caused by cities.

In addition to the degenerative economic practices of cities, what is also paramount in its ill effects is the attitude towards nature or lifestyle ascription that is characteristic of urban living. Here, the debate returns to the question of ethics and in particular to the necessity for a prudent demonstration of ethical behavior towards ourselves and towards the context within which we exist, namely, nature. Martinez-Alier[22] concludes "Cities are not environmentally sustainable by definition; their territory is too densely populated with humans to be self-supporting. A world where urbanization is rapidly increasing, and moreover where urbanization is characterized by urban sprawl, becomes an ever more unsustainable world." (104)

The inherent conflict between urban economic growth and the need for citizens to protect their natural resources often leads to environmental mobilization by concerned individuals to gain a voice in the environmental debate. Gould K, Schnaiberg A, Weinberg A[23] comment on that inherent conflict in their work *Local Environmental Struggles: Citizen Activism in the Treadmill of Production* in which they state "One of the dilemmas in managing ecological scarcity in a liberal industrial society is the need to satisfy both the demands of private capital and public agencies for economic growth and the demands of citizens for maintaining public health, as well as the recreational and aesthetic amenities of their natural habitats." (5) The authors point out the origin of that inherent conflict by stating "The problem emerges from the sharply delineated differences between the economic logic of expanding industrial production and the ecological principles of sustaining natural systems." (5)

The role of citizens in effectively mitigating the effects of such a conflict is made more difficult

by two limitations inherent to the sociopolitical realities of living in a liberal industrial society. The first of these limitations concerns the lack of effective representation of the voice of individual working-class citizens in the environmental struggle. Cable S, Cable C[24] remark on this limitation in their work *Environmental Problems Grassroots Solutions: The Politics of Grassroots Environmental Conflict* in which they posit the following:

The essential question inherent in grassroots environmental conflict, and a question which you as a citizen of the world must eventually resolve for yourself, is this: Who should make the decisions that may result in dangerous environmental consequences? Corporate and governmental officials? The public at large? The citizens whose environments, and personal health, will be directly affected? (117)

These questions point to the need for an internal dialogue on the individual level, something akin to the values and personal experiences that enrich an individual's phronetic knowledge of the issues that surround the daily existence of that individual. This dialogue, which must occur on a personal level, may lead to self-empowerment, which in itself may instigate social change. The authors remark, "Thus, environmental activism is a strongly politicizing experience, and the grassroots organization becomes a vehicle for self empowerment." (120)

The second limitation facing citizens concerns the hegemony of institutionally recognized experts and their monopoly over the access to 'legitimate knowledge', which in turn monopolizes the process leading to decision-making authority. By contrast, *Phronesis* invests expertise at the individual level, beyond the reach of institutions by recognizing that 'meaningful knowledge' or Praxis is the highest form of acquired knowledge and that individually acquired expertise is its ultimate form.

Iles A[25], in *Patching local and global knowledge together: Citizens inside the U.S. chemical industry* writes "People living and working in the neighborhoods that surround chemical facilities are using local knowledge both to gain entrance to decision making inside plants and to challenge the industry's hegemony over defining what counts as expert knowledge," (286) The author later concludes "As a result, the meaning of expertise can potentially change away from specialized skills and knowledge to a more general criterion of being prepared to participate in decision making inside and outside plants on both local and global scales." (286)

As Flyvbjerg[20] points out "Context-dependent knowledge and experience are at the very heart of expert activity." (70) Flyvbjerg[20] goes on to say "it is only because of experience with cases that one can at all move from level three in the learning process to level four and five. If people are exclusively trained in context-independent knowledge and rules," (70) Flyvbjerg[20] stresses, "They will remain at the first levels of the learning process." (71) Where it concerns praxis, however, context-dependent judgment rather than first principles or theories are of relevance.

Flyvbjerg[20] tells us "the minutiae, practices, and concrete cases which lie at the heart of phronetic research are seen in their proper contexts; both the small, local context, which gives phenomena their immediate meaning, and the larger, international and global context in which phenomena can be appreciated for their general and conceptual significance."(71)

Phronesis, is clearly, neither a quantitative nor a qualitative method, nor is it a synthesis of the two. It is, rather, a branch of knowledge that offers unique insights and relevant observations of human activity through context-laden reflective analysis. What can also be distilled from phronetic observations are insights on an individual's capacity to acquire practical knowledge and to excel through channeling personal life experiences into intuitive leaps of creativity that position that individual's contribution at the expert level.

The Dreyfus Model of human learning, Flyvbjerg[20] tells us "emphasizes the importance of gaining concrete experience as a precondition for the qualitative leap from the rule-governed analytical rationality of the first three levels to the intuitive, holistic, and synchronous performance of tacit skills of the last two levels." (71)

CONCLUSION: A PHRONETIC APPROACH TO URBAN LIVING

Phronetic research calls for integrating social policies and planning processes with input from citizens very early in the design and formulation of such processes. The emphasis would be on the role of citizens as individual "experts", whose life experiences and practical knowledge of their respective dwellings and the land it occupies, defines their knowledge base and

delineates their participation in their community's development. Such a community of grassroots' "experts" can have a positive impact in guiding their city towards a more enlightened planning and policy design. It would serve to empower their voice and their effective impact on not only their respective communities but also regionally, nationally and globally.

Such an influence, may find its way into scholarly research circles, where phronetic components are poised to question existing research approaches in social policy. Phronesis, as an alternative approach that answers this expressed need also positions citizenship participation in the correct context for constructive change in present and future policy and planning processes. Therefore, a phronetic approach to greening the Urban Biome that imbues citizen participation with value-rationality and context through the exercise of Praxis, would by necessity, have a double purpose:

- It serves to educate individual citizens about their role as "experts" through initiating and achieving regenerative social policy strategies and by advancing responsive planning and policy initiatives that positively impact their local environments
- It provides guidance for public officials in local municipalities along with other stakeholders to achieve relevant and satisfactory citizen participation efforts that directly involve individual residents in planning and policy formation.

The research undertaken in this paper was built on the conclusions and propositions advanced by a multitude of authors, thinkers, and writers over the last half century from a multitude of fields and disciplines, as well as the author's own further research on Phronesis-based research and citizen practitioner engagement of the past few years. What is at the heart of the continually evolving debate on citizen participation and its relatively recent offshoot, citizen engagement is negotiating a balanced approach towards power relations. Although the focus of this debate has shifted over the decades, following the dominant concerns of each era and its historical context, its aim remains to affect better outcomes for the relationship between citizens and their representatives within a democratic framework. Research methods of citizen engagement have more or less followed in their historical progression of the academic

debate, in terms of theories, models, methods, and methodologies emerging from each era, while keeping a tenuous connection to field-applied techniques and strategies for citizen participation. This is due, in a large extent, to the varying reach and impact of the role that politics plays in shaping the debate in academic circles, on the one hand, and in the decision-making arena, on the other.

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