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Toward a Non-Euclidian Mode of Planning

John Friedmann

We live in an unprecedented time, confronted by unprecedented problems. I suppose that every generation believes in the unprecedented nature of its time and place, and to some extent this belief is well founded. But what we are living through in the final decades of this century is something altogether different. It is nothing less than the collapse of the Euclidian world order of stable entities and common sense assumptions that have governed our understanding of the world for the past two hundred years. The engineering model of planning that served us during this period, with its penchant for advance decision making and blueprinting and its claims of superiority to other forms of decision making because of its scientific character, are thus no longer valid and must be abandoned. We are moving into a non-Euclidian world of many space-time geographies, and it is the recognition of this change that obliges us to think of new and more appropriate models.

Rethinking Planning

The conventional concept of planning is so deeply linked to the Euclidian mode that it is tempting to argue that if the traditional model has to go, then the very idea of planning must be abandoned. The only way around this dilemma—either Euclid or nothing—would be to define planning independently and distinct from the engineering sciences, which were its original inspiration. Such a definition involves the linking of knowledge to action: *Planning is that professional practice that specifically seeks to connect forms of knowledge with forms of action in the public domain.* Although fairly abstract, this definition allows us to reconceive planning as something other than engineering, where means are always efficiently related to given ends, and blueprints lay out a course of action for others to pursue. The definition allows us to think of a non-Euclidian model of planning. What we need to do, then, is to rethink the questions of knowledge and action. What knowledge is relevant and with whose actions are we concerned?

To begin our excursion into this relatively uncharted terrain, we need first to consider the implications of the contemporary collapse of the time-space continuum.

What would be the appropriate time and space of a non-Euclidian form of planning? The time of such a planning is the *real time* of everyday events rather than imagined future time. Planners would accordingly be more in the thick of things rather than removed from the actions that their planning under the old model was intended to guide. Viewed in this light, planning becomes less a way of preparing documents, such as analyses and plans, and more a way of bringing planning knowledge and practice to bear directly on the action itself. Central to a non-Euclidian planning model are planners acting as responsible, thinking urban professionals rather than as faceless bureaucrats engaged in the production of anonymous documents. Face-to-face interaction in real time is the new model of planning.

This is not to argue that it is altogether futile to imagine future time or useless to make projections, simulations, and other hypothetical studies about what might or ought to happen next year, or five or even fifty years from now. Human imagination cannot be confined to practical problem solving in the here and now. Being open to the future, the mind takes leaps in time. Concern with an imagined future will continue to play an important role in planning, but the emphasis in non-Euclidian planning should be on processes operating in actual or real time, because it is only in the evanescent and still undecided present that planners can hope to be effective.

As for the space of planning, we need to privilege *regional and local* over national and transnational space. This leads to a decentered view of planning. I am not saying that national and transnational planning are obsolete. Far from it. Planning is instituted at all levels of public decision making, but in thinking about a new model, where should the emphasis lie? There are several reasons for my choice of the regional and local scale. First, we must be more attentive than ever to regional and local variety and difference. The problems and conditions of planning are not everywhere the same, and it is the specificities of place that should be our guide. In other words, there is truth in the old adage that the solution should be as complex as the problem it proposes to solve. There are no simple solutions for problems in the public domain.

A second reason is the increasing presence of organized civil society in public decision making. This is a relatively new but increasingly salient phenomenon in the public life of cities and regions. It means that a space for participation must be found for a whole new set of actors in addition to the nation state and capital. Regions, cities, and neighborhoods are the places where meaningful citizen participation can take place. It is far less likely to occur at superordinate levels.

A third reason is that regions and localities are the spaces of people's everyday lives. National and transnational space is typically for corporate actions and superordinate bureaucracies. It is not the space where ordinary people can exert much influence on events. But ordinary people do affect the spaces where they earn

their livelihoods and where their daily lives unfold. The quality of that space is exceptionally important to them.

A decentered planning is attractive for other reasons as well: the wider distribution of risks, the potential for social experimentation, and the revival of democratic practices. It is true, of course, that national and transnational conditions tend to constrain local and regional actions, and that structural changes at higher levels are often required before significant progress at local levels can occur. Neither politics nor planning can be abandoned at these superior levels of governance, and their role is indeed crucial. But changed or not, these conditions constitute merely the framework for everyday planning practice, and the bulk of most planners' attention should be focused on regions, cities, and neighborhoods.

Within the new continuum of real time and local space, a non-Euclidian planning model would have five characteristics. It would be normative, innovative, political, transactive, and based on social learning.¹ Before addressing each of these, it may be useful to contrast the new model with the familiar Euclidian or engineering model of planning. Whereas planning in the new model is normative, planning in the old model is normatively neutral in that its principal criterion is efficiency in the attainment of externally defined goals and objectives. Whereas planning in the new model is innovative ("setting something new into the world," would be a definition of action in this model), the old paradigm centers on the allocation of resources in budgets, land use maps, and the location of public facilities. Whereas the new model argues that planners should be political in the sense of being concerned with implementing strategy and tactics, the old model argues for strict adherence to the civil service code of affective neutrality and nonpolitical practice. And whereas the new model argues for a transactive, empowering planning style, the old centrist model is essentially disempowering in its impacts. Finally, whereas the new model is based on social learning, the old model is primarily a document-oriented activity that is largely closed to public scrutiny and therefore short on learning potential.

Planning Should Be Normative

Whom should the practice of planning serve? One could, for example, argue that planners have an obligation to serve those who pay them. Such an answer, however, would be unacceptable as a guide to professional practice.

Teachers teach; lawyers serve justice; doctors heal. What do planners do? In every profession there is an ideal of service. Normative ideas for planning are difficult to define, because planners are active in a public—that is a political—domain where views and interests often clash. Thus, I cannot lay down a set of guidelines valid for every planner. There are, as we all know, both conservative and progressive planners; planners who serve special interests and those who would act in the interest of all humanity. Still, I would like to set forth my own considered values, which are grounded in a humanist

vision. In the late twentieth century, the following values seem to compel serious consideration: the ideals of inclusive democracy; giving voice to the disempowered; integrating disempowered groups into the mainstream of economic and social life while preserving cultural diversity; privileging qualitative over quantitative growth, including the notion of sustainability; gender equality; and respect for the natural world. In this perspective, planning is well to the left of the political center. No doubt there will be argument on this point. On the other hand, since belief in the inevitability of historical progress is no longer tenable, the urgencies of the present world crisis and the specific values that they demand—democracy, inclusion, diversity, quality of life, sustainability, equality of rights, and the multiple claims of the environment—need to inform planners' work.

Planning Should Be Innovative

Innovative planning looks toward creative solutions to the social, physical, and environmental problems that rise to political consciousness in the public domain. Innovative planning is consequently focused rather than comprehensive in scope; present rather than future oriented; and concerned chiefly with institutional and procedural changes appropriate to the case at hand. Innovative planning is concerned more with resource mobilization than with central allocation. It operates in real rather than imaginary time. And above all, it is entrepreneurial. As such, it is well adapted to a decentered planning system that involves a concerting of the powers of many different actors. Therefore, innovative planning requires great skills in negotiation, mediation, and the art of compromise. It is a form of planning that, like entrepreneurship in the private sector, is prepared to take risks, even while remaining publicly accountable.

Planning Should Be Political

In non-Euclidian planning, which takes place in real time, knowledge and action are so tightly looped that they appear not as two separate processes but as one. Implementation is therefore built into the planning process as a critical dimension, involving strategy and tactics designed to overcome resistance to change within the limits of legality and peaceful practice.

It is the common experience of humanity, however, that the new will be resisted, not because it is new, but because it threatens to displace something that already exists. The assumption on the part of welfare economists that certain changes ought to be preferred because they will make some people better off while making no one's position worse, is an empirical impossibility. Some people will always feel worsted by innovations, though not always in financial terms.

This being the case, planning entrepreneurs can expect to meet with opposition whenever they try to realize their intentions. Therefore, if they are to prevail, if only partially, they will need to think about their implementation strategies right from the start. Without the exigencies of implementation, planning designs remain empty forms.

But to act strategically is already to act politically; it means taking power seriously as a crucial element in planning.

Planning Should Be Transactive

In contemporary planning, two kinds of knowledge are especially pertinent in the search for solutions: expert and experiential knowledge. Planners are usually identified with the former; the latter is the uncoded knowledge of people who will be affected by potential solutions. If solutions are to be adequate to a problem, the two must be brought together. Indeed, the definition of the problem may result from linking expert with experiential knowledge in a process of mutual learning.

Because experiential knowledge is not codified, it becomes manifest primarily through speech. It is in the face-to-face transactions between planners and the affected population that a basis in knowledge adequate to the problem can be found.

Transactive planning is situation-specific and thus appropriate to decentered planning, which seeks a diversity of solutions at regional and local levels. Transactive planning seeks to draw potentially affected populations into the planning process from the very beginning, when problems still need defining. It is a participatory style with its own characteristics. Above all else, participation requires time. It also requires that both planners and citizens have the capacity to listen sympathetically and share the responsibility for problem definition and solution.

Transactive planning works best in small groups of up to twenty people. Because community representatives may not be empowered to speak for others, transactive planning is not an answer to the issue of democratic accountability. Its claim is more limited. Transactive planning brings more detailed and specific knowledge to bear on a situation than would be possible if only expert knowledge were used. In addition, it may also strengthen communal responses and channel them away from blind resistance into more constructive paths. Transactive planning seeks to tap into people's capacity for proactive practice and, where it is successful, may help create a sense of collective solidarity.

Planning Should Be Based on Social Learning

In turbulent times, when little can be foreseen, there is a need to proceed cautiously and experimentally to learn from mistakes, to allow new information to guide the course of action, and to take immediate corrective actions as may be needed. Of course, long-term commitments must be made from time to time: rail transit systems, for example, must be designed on a substantial scale. Large-scale projects, however, are the exception rather than the rule, and increasingly, small-scale, flexible solutions are found to be the appropriate answer. For instance, small-scale power generation is becoming a technical and economic possibility. More flexible solutions than fixed rail systems are finding favor among

transportation planners: share ride systems, jitney cabs, shuttle services.

The social learning model of planning argues for an open process with two main characteristics: critical feedback and a strong institutional memory. Openness requires democratic procedures. It favors open over closed meetings, and invites criticism and comment. The media and evaluative research both play an important role here. Planning in the public domain must be accountable. In a climate of secrecy, mistakes accumulate and, in the long term, almost certainly culminate in disaster.

Social learning systems require a confident leadership that is not afraid to admit mistakes. It also requires a political culture that does not seek immediate partisan advantage for every mistake committed. It is essential, however, to realize the broad implications of social learning. When action fails to satisfy expectations, questions must be raised concerning the strategy employed and, beyond that, the actor's image of reality, and even the ultimate values on which the action rests. To reconsider strategy, image, and values calls for the sort of courage that only planning entrepreneurs are likely to possess.

The New Urban Professional

The old planning model, rooted in nineteenth-century concepts of science and engineering, is either dead or severely impaired. Though still practiced, it has become largely irrelevant to public life. Though still taught in many parts of the academy, it has little of value to offer students.

In non-Euclidian planning, the planner is placed into the center of the activity we call planning as a responsible professional. This suggests a new and more aggressive role for planners seeking value-relevant changes within their spheres of competency. In this entrepreneurial role planners must be publicly accountable, as they preside over processes that are radically open to public inquiry.

Non-Euclidian planning is decentered, privileging regions and localities. It encourages the affected population to take an active part, and, thus, validates the experiential knowledge of ordinary people and promotes mutual learning between the planning expert and the affected population. The truth claims of planning, where knowledge is a combination of expertise and experience, are ultimately redeemed through intersubjective transactions between community participants and planners.

Non-Euclidian planning operates in real time by linking knowledge and action into a tightly looped process of strategic change. Planning entrepreneurs are primarily resource mobilizers who seek to concert public and private energies around innovative solutions to stubborn problems in the public domain. Such planning is oriented to values rather than profit. It is normative in its intent. Though planners remain free to choose, action in the public domain should be justified as that which furthers

the cause of human flourishing and diversity throughout the world.

NOTE

1. I have discussed elements of this model in my writings over the past twenty years and they are brought together here for the first time as a comprehensive alternative to the rational decision-making model still championed by many planning theorists, most notably Andreas Faludi. Readers will find the following references useful: *Retracking America: A Theory of Transactive Planning* (Doubleday and Anchor, 1973); *The Good Society* (MIT Press, 1982); *Planning in the Public Domain: From Knowledge to Action* (Princeton University Press, 1987); and *Empowerment: The Politics of Alternative Development* (Basil Blackwell, 1992).

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A Quantum Response to Non-Euclidian Planning

Sam Casella

A quantum revolution is changing the way we look at the world. Quantum theory revealed the inner structure of matter. By manipulating matter from the inside, rather than from the outside, quantum theory makes it possible to build machines that overcome conventional limits of mechanical time and space. One result is the microcomputer. The collapse of the old mechanical and spatial order, expressed in the electronic microcosm of the computer chip, represents a new technology whose impact is only beginning to be felt and understood.

In this new age, change is faster. Possibilities are more startling. Who would have predicted ten years ago the fall of Russian communism and the disintegration of the Soviet Union? Permutations have multiplied. We have seen the rise of the microbased home enterprise in a thousand fields, including planning. Large, old bureaucracies are being challenged. Witness IBM.

In a quantum age, knowledge flows globally, creating a global net of ideas, capital, and labor. Long-range planning is challenged by rapidly changing assumptions. Large-scale planning is challenged by the flexibility of smaller economic units.

As Friedmann points out, a non-Euclidian world links knowledge to action, emphasizes real time, and encourages appreciation of regional and local variety. In a quantum world, there is also heightened concern over the long-term future, precisely because the future seems to be in danger of getting out of control. Planning must cope with the dislocations of rapid change and address the future too.

I have no quarrel with Friedmann's characterization of the non-Euclidian planning model as normative, innovative, political, transactive, and based on social learning. Those characteristics are validated by my own experience. But, I would add four other characteristics to Friedmann's five, and call it a quantum model. A quantum planning model would also be technological, multidisciplinary, substantive, and intellectually free:

- Technological because it utilizes the rapid advances of quantum science to extend the reach of each planner to acquire and use information.
- Multidisciplinary because it requires greater skill in appreciating connections. The traditional concerns of land use, design, and physical function must be understood as serving social and economic needs.
- Substantive because the emphasis is on results. There isn't time in a quantum world to dwell excessively on process.
- Intellectually free because productivity depends on the individual ability to adjust rapidly to changing information.

In a quantum age, every institution, every process, and every individual is challenged to adapt to new demands. Planning is no exception, and planners must change and adapt if they are to come up winners. Friedmann's non-Euclidian model is a useful approach to that challenge, and can be made even more useful by an understanding of its quantum context.

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