Practicing Land Consolidation in a Changing World of Land Use Planning\textsuperscript{1}

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\textit{Harvey M. Jacobs: Jordskifte under endrede forhold for planlegging}

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The professional practice of land consolidation is part of a global movement of land use planning. This planning was invented in the early part of the 20th century and is based on a set of presumptions, many of which are now under challenge by social and technological forces. These forces are predicted to substantially reshape professional practice in the next decade. Most significantly land use is becoming redefined as an area of social planning, rather than technical planning, and while this redefinition can be difficult for practitioners, it will lead to more enduring land use plans.

\textit{Key Words:} Land use planning, Global Change, Forecasting, Professional Practice.

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Introduction

The twentieth century has ended with a flurry of intensive socio-political changes in the world (Fukuyama 1989, Huntington 1996). A partial listing of the changes would note that in the last decade alone we have experienced the end of communism in the former Soviet Union and among its central European allies, the balkanized breakup of the Soviet Union itself, the reunification of the former two Germanys, the slow but steady emergence of what may become a United States of Europe (through, for example, the introduction of the Euro, the lowering of trade barriers and the introduction of common standards in areas such as education), and the possibility of a reunified Korea. The emergence of the internet has transformed global communication patterns and the structure of global commerce, and, in fact, globalization seems to be everyone’s tongue (Martin and Schumann 1997, Schaeffer 1997).

As the socio-political and economic structure of the world itself changes, we find ourselves forced to examine whether the institutional structures we have developed to interact with each other remain as relevant for the new century and millennium as they were for the times in which they were developed. In this article, I offer my thoughts and observations on the practice of land consolidation and land use planning in this changing world.

As readers of this journal well know, the practice of land consolidation is an old one in Norway. Rognes and Sky (1998) write that early legislation for land consolidation dates to 1821, and that in 1857 the Land Consolidation Act was passed, leading to the establishment of the first Land Consolidation Service in 1859. What is unique about Norway’s approach to land consolidation is its placement wholly within the judicial system. According to Rognes and Sky (1998: 2), “... Norway is the only European country that has organized its land consolidation process completely within the framework of its judi-
cial system.” The basic system has been modified numerous times, including quite recently, but the fundamental judicial-based structure remains the same. To an outsider what is especially curious about this structure is the training of its practitioners. Land consolidation judges are not educated in law or economics, at least not in the traditional school of thought. Instead, they graduate from a specialized course of study at the Agricultural University of Norway. Here they take a multi-disciplinary education in surveying law, mapping, cadastral law, land use planning, and land consolidation; the judges are not allowed to begin their practices until they have “. . . gained some practical experience as a surveyor in the Land Consolidation Services” (ibid: 2-3).

The practice of land consolidation itself focuses on the conflicts that arise among landowners when social and technological changes impinge upon traditional land use activities. Land consolidation represents an effort to maintain a degree of fairness, social justice, among land users so that as society and technology change, no one land owner is required to bear an unreasonable burden on behalf of society as a whole. Social values of both equity and efficiency drive the land consolidation process (ibid: 3). In this way, land consolidation was and is part of a broader social movement for land use planning that arose at the dawn of the twentieth century in Europe, North America, and other developing countries. Recognizing the rapidly changing nature of land use as a function of industrialization and rural to urban migration, modern land use planning was designed to address precisely those phenomena: the fact that an individual’s choice of land use was no longer always optimal from a social point of view, and the need to coordinate land use activities among individuals and entities (e.g., Lemmings complex and urban hall (Hall 1988)).

So two key questions present themselves – what kind of land use planning arose at the dawn of the twentieth century, and how relevant is this approach to planning as we begin the twenty-first century? My argument and conclusion is that the kind of planning that was developed one hundred years ago is no longer relevant to the world of today. Just as the social and technological conditions of the past required that we invent a particular form of land use planning, the social and technological conditions of the present necessitate that we re-invent land use planning for this new era.

The Past and Present of Land Use Planning

This discussion must begin by acknowledging that modern land use planning was invented at the dawn of the twentieth century. The specific model of land use planning in use today grew out of the German “fourth amendment” and city planning movements of the late 1800s. These movements promulgated the idea of an analytical, scientific, and systematic approach to determining how land should be used. These movements also put forward the idea that the general public interest could not be served by each individual pursuing their own self-interest, and that there was a need for a social structure which identified and integrated the goals and activities of individuals (Jacobs 1993, 1992). Overall, this idea was reinforced by a general interest in Taylor’s scientific operations, management movement in the early 1900s. In the rapidly growing cities of the period these movements gave birth to modern city planning (Hall 1988).

The presumptions of the 20th century model

The land use planning model invented during this period was based on certain embedded presumptions. It is these presumptions that now must be re-thought and are at the base of the coming change in how land use planning and land consolidation is addressed (see Figure 6). These presumptions include: 1) it is possible to perform a complete physical and social analysis of the capacities of land, and demand for land within a single period of time; 2) analysis will yield information that will lead to better individual and social decision making; 3) this process of analysis and information generation will be heavily reliant on professionals and experts; 4) the result of this analysis will yield a single best pattern of land use and settlement (this is expressed, for example, in the policy tool of zoning with its single use districts); 5) while many western countries exhibit a strong cultural inclination toward local governance, there is a professional orientation toward centralization in administrative authority for land; 6) urban society is at the height of the social hierarchy, and decisions concerning land use are to be subservient to it; and finally, 7) land is, at base, a fundamentally private commodity and resource; the premise is that land use rights should begin with the private owner and society cannot interfere to any extent that it is clearly necessary to protect public health and safety.

This model of land use planning is now challenged by three different forces: the replacement of land use planning and and city planning movements of the late 1800s. These movements promulgated the idea of an analytical, scientific, and systematic approach to determining how land should be used. These movements also put forward the idea that the general public interest could not be served by each individual pursuing their own self-interest, and that there was a need for a social structure which identified and integrated the goals and activities of individuals (Jacobs 1993, 1992). Overall, this idea was reinforced by a general interest in Taylor’s scientific operations management movement in the early 1900s. In the rapidly growing cities of the period the "movements gave birth to modern city planning (Hall 1988)."

The challenge of an informed citizen

The citizens movement of the last several decades provides the most prominent push on the changing nature of land use planning practice. Citizens find themselves challenging many of the underlying presumptions of the model developed over one hundred years ago. In this way, land should bear perfect knowledge and information to plan for land. If ever there was a time when it could be argued that it was necessary and possible to have perfect knowledge and information in order to plan, that time has now passed. Citizens and decision-makers are well aware that it is probably impossible to achieve this state (or constantly evolving knowledge of ecology proves this to us; what we think we know always turns out to be woefully incomplete), and land use non-experts may be experts in land use decisions; therefore, any attempt for a deal to be made and it must be made with the best information available at the time.

Added to this is citizens’ skepticism about the presumptions of expert and preeminent knowledge. Citizens are no longer willing to cede to an expert’s analysis and opinions just because that person, as a land use planner or land consolidation specialist, is presented as an expert. Citizens have ample evidence of the failure of experts and feel empowered to conduct their own analysis. This is especially true with regard to land issues, which are so immediate and accessible (e.g. Strong 1975).

As part of this empowerment citizens are questioning our continued reliance on the use of rationality and the scientific method as the only means of informing land use planning decisions. Rationality and the scientific method have been our anchor through much of the 20th century. In fact, they have been so norm the much that we have trouble imagining how else to "think" or "decide," or remembering that these approaches themselves are forms of decision-making. One of the most significant elements of both the contemporary environmental and feminist movements of the last part of the twentieth century is the reassertion of other means of informing decision-making; means such as intuition, special-sense, and social justice (see, for example, Booth and Jacobs 1990, Jacobs 1996). Citizens are ever more willing to assert that their feelings about the transformation implied in land use planning and land consolidation decisions are as relevant and important as the use of economic-rationality and the scientific method, the traditional bases for decision making.

Finally, a part of the skepticism about land use experts and their advice is citizens and developers who have become aware of the loss of power to the centralization of land use decision making authority and management so as to achieve sound land use objectives. Throughout the developed world, though more so in some countries than others, citizens exhibit a profound love hate relationship with governmental authority. Especially with regard to land, there is often a conflicting cultural value where local governance is often touted, and it is also common to bemoan its shortcomings. Yet what is striking is how centralized governmental reorganizations over land use authority seem, more often than not, to portend less citizen access to the decision making process (e.g. Popper 1974).

More than anything else, this diverse, populist citizen movement has made clear that land use planning and policy is as much a social and political issue as it is a physical and economic one. Land use decisions are not just about economic efficiency, land values, traffic flows, and municipal tax bases. They are as much about community stability, neighborhood character, individual and family well-being, and the ability of an individ
The resurgence of private property

One part of the socio-political changes underway in China is probably its newly approved property law, which has come into force. The law is a key component of the Chinese government's efforts to modernize its legal system and promote economic development. It provides for the protection of private property rights, including the right to buy, sell, and transfer property. The law also recognizes the right to lease land for commercial purposes, which is a significant shift from the previous system where land was allocated by the state.

In the international arena, the issue of private property rights is also a significant concern. The protection of private property is a fundamental human right, recognized by international law. It is essential for the development of市场经济 and the rule of law. However, in many countries, private property rights are subject to restrictions, particularly in the context of land use and environmental protection.

The role of GIS in the context of developing countries

In developing countries, the use of Geographic Information Systems (GIS) has become increasingly important in planning and decision-making processes. GIS technology is used to collect, manage, and analyze spatial data, which can be used to inform policy decisions and improve efficiency in the use of resources. In many cases, GIS is being used to address issues related to land use planning, urban development, and environmental management.

The advantages of GIS in developing countries include:

- Improved accuracy and efficiency in data collection and analysis.
- Enhanced decision-making through the integration of various data layers.
- Better resource allocation and management.
- Increased transparency and accountability in planning processes.
- Enhanced capacity for disaster management and response.

Despite these advantages, there are also challenges that need to be addressed, such as the provision of adequate training and support for users, and the need for robust data infrastructure.

In conclusion, the protection of private property rights is a fundamental human right that is essential for the development of市场经济 and the rule of law. The use of GIS technology in developing countries can help to address the challenges of land use planning and resource management, but it is important to ensure that the technology is used in a way that promotes equity and sustainability.

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GIS and the democratization of analysis

The third challenge to land use planning is the advent of Geographic Information Systems (GIS). As the twentieth century begins, it can be hard to remember that the first IBM personal computer was introduced in 1981, and the Apple Macintosh in 1984. Computers in general, including personal computers, modems, electronic networks, bulletin boards, and the internet have become ubiquitous. Along with the spread of the spread of geographic information systems (GIS) among local governments and planning offices (Danner 1989, Jacobs 1989). Before the advent of GIS technology land use and settlement analysis was conducted through a cumbersome and inefficient method of map overlays, in which the user was presented with a series of maps, each with its own legend and scale, and the user had to manually overlay them to see the results. GIS, on the other hand, allows for the creation of a digital database of geographic information, which can be easily accessed and analyzed using powerful software tools.

With GIS, it is possible to create detailed maps and models that can be used to analyze the impact of different land use policies and development plans. This makes it easier for decision-makers to understand the potential implications of their actions and to make informed choices. GIS technology has also been used to help identify areas that are at risk of flooding, landslides, or other natural disasters, allowing for timely intervention and the development of effective mitigation strategies.

Another benefit of GIS is that it can be used to help identify areas that are in need of development and to prioritize projects based on their potential benefits. This can help to ensure that resources are used in the most effective manner possible.

In conclusion, GIS technology has had a significant impact on the field of land use planning and settlement analysis. With its ability to create detailed maps and models that can be easily accessed and analyzed, GIS has revolutionized the way that decision-makers approach these issues. It has made it possible to create more informed decisions and to prioritize projects based on their potential benefits. As the technology continues to evolve, it is likely to play an even greater role in the field of land use planning and settlement analysis.
The Future of Land Use Planning

What does all this mean for the future of land use planning, and consolidation activities? It means that they will become fundamentally different. Land use planning can no longer be viewed as a technical exercise, but has to be recognized for its strong social character (see, as illustrations, discussions in Jacobs and Beatty 1991). This fact, the democratization and socialization of land use planning, may change it more in the next decade than it has changed in the last century.

Globally three interrelated trends underlie the future of land use planning: First, as a result of citizen involvement, planning is becoming more pluralistic. More types of individuals and groups are asserting more types of interests in planning activities. And all of them are able to argue, with increasing sophistication, that their perspectives on land and the public interest for its use are the appropriate ones. Second, because of this, land use planning is becoming more conflictual, among these individuals and groups, and among the groups and land professionals. Third, land use planning is becoming more participatory, dominated by professionals, with exclusive access to information, is over.

A new form of land use planning and policy is emerging and it will be characterized by two approaches different from the practices of the past. First, while more participants will be involved in land use planning, and assert the legitimacy of their participation, most will bring a limited perspective to land use debates and conflicts; work will need to be done to broaden participants perspectives to assure that all legitimate concerns and interests are taken into account, and to mediate among these varied interests. Second, it is necessary to approach land use planning as an alternatives generating process, where the costs and benefits, the winners and losers, the economic, environmental, and social impacts of alternative concepts and plans are made clear as the basis for informed and vigorous public debate.

The land use planning practice we do in the 21st century will have to acknowledge and confront the complexities and contradictions within it, and attempt to unravel this to all those who do, and who should, share a concern about them. Such planning will not only respond to interest groups, it will need to forge new strategies and approaches to land use planning. The plan will seek to present to participants options for addressing issues, and assist in assessing options that are brought forward by participants.

This means that the analyses and processes that comprise land use planning needs to change. Land use planning needs to become more pro-active and strategic in identifying participants to the planning process. This planning needs to conduct analyses that reflect not just the economic and ecological characteristics of land, but also its social characteristics. Analysts need to ask not just, what is the economically efficient use of the land? and what is the ecological carrying capacity of the land?, but what is a socially equitable way to plan the land's use?

In general, the future of land use planning practice lies in acknowledging that planning is not and cannot be a technocratic, scientific exercise. Land is a unique economic and ecological resource, but it is also a unique social resource. Land use planning and land consolidation often act as the stage for fundamental and complex social debate about individual and social rights and the articulation of ideals about family, community, democracy, and social justice.

Land use planning and land consolidation are, and always have been, exercises in social planning masked as technical planning. To be truly successful, to create enduring, efficient, and equitable land use patterns, it is necessary to recognize them as such, and to act accordingly.

References


Norges teknisk-naturvitenskapelige universitet

Kurs ved NTNU høsten 2000

GIS i by- og regionplanlegging – VUA4001
Del 1: 13. – 17. november 2000, Trondheim
Del 2: 4. – 8. desember 2000, Trondheim
2 vektall

Geografisk informasjonsbehandling – VUB6101
Del 1: 4. – 8. desember 2000, Trondheim
Del 2: 8. – 13. januar 2001, Trondheim
2 vektall

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