

From Alvar Aalto to Network City – Reflections from the 1940s Kokemäenjoki regional plan

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Introduction

Already in the 1980s, Jere Maula, professor in urban planning at the Tampere University of Technology, drew attention to how Alvar Aalto's Kokemäenjoki regional plan was ahead of its time (Nupponen 2000, 69). The plan, which was completed in 1942, raised themes and planning principles that were not present in research or official planning documents until in the 1980s when discussions on the regionalisation of cities and the network-like form of regional structures had just begun. In the 1990s, and at the beginning of the 21st century, the "network city" metaphor, developed by researchers mainly in the German-speaking Europe, began to gain more diverse content, as well as stabilise and gradually move to governmental strategies.

The key principles of the Kokemäenjoki plan included processing of technical infrastructure, construction and landscape as a single network-like entity. Aalto paid attention to the way how communities emerged spontaneously as parts of this entity. He saw the development of a region as a dynamic process creating a new community type that was inappropriate with old categories. His aim was not a traditional plan that described the final outcome, but instead a tool that enabled to understand and manage continuous change. (Rautsi 1998) All these themes can be found explicitly in Aalto's Kokemäenjoki plan, since an integral part of the plan was in text format (Aalto 1943).

These themes are also present as key subjects in the network city discussions during the 1990s and the beginning of the 21st century. Although this debate consists of studies based on various traditions, they have the common need to interpret the transformation of regional and urban structures from a new basis. The growth of urban regions and related activities of spatial reorganisation, reconnection and dissolving of hierarchies could no longer be explained satisfactorily based on the central place theory or traditional urbanisation theories.

The similarity of Aalto's planning principles and the network city discourse raises questions, and even forces us to make comparisons between them. Although the societal conditions in the 1940s and the 21st century were very different, urban growth, technological development and urban merging with the countryside provide a common context at different times. This common background can be conceptualised with the theories of architecture and the substantive theory

of urban planning (Faludi 1973). The processual aspect of planning is excluded from this observation.

Despite extensive quantitative background investigations, Aalto's method of planning was qualitative. The starting point of network city interpretations is quantitative, because when the increasingly diversifying communities in terms of functionality and life styles began to appear as systems of complex interactions, various system and network theories offered an obvious framework for analysing them. On the other hand, "network" is a relatively strong metaphor, which easily transforms from an analysis tool to a planning objective, when established in planning discourses.

Aalto, on the other hand, avoided all metaphors in the sense that he did not place any conceptual model between the object of planning and planning assignment, but began to work directly on the material available. This is the core idea of my study. It will be analysed and put in to practice by placing the planning discourses of Aalto and the network city in dialogic relation with each other. First of all, the aim is to find new perspectives for the timely debate on regional and urban planning. The second objective is to better understand the thinking and attitude behind Aalto's plan. Sociologists Terttu Nupponen (2000) and Jussi Rautsi (1984) have successfully analysed Aalto's regional planning in social scientific terms. My starting point is the organic theory of architecture when seeking to understand Aalto's work and his method of planning. The focus of this essay is, therefore, not on the societal factors, which shaped Aalto's plan, but rather on how his own approach to planning manifested in the plan.

Alvar Aalto's planning approach

One of the most well-known interpretations of Aalto's architecture can be found in Sigfried Giedion's book "Space, Time and Architecture", in chapter "Alvar Aalto: Irrationality and standardisation" (Giedion 1941/2008, 618-667). He uses the concept of organic architecture as his interpretation framework, but keeps its content at a very general level. Bruno Zevi also places Aalto in a high position as a representative of organic architecture in his classical work "Towards an Organic Architecture" (1950). Without aiming for an exact definition, Zevi (1950, 76) summarises the idea of organic architecture in the following text:

Architecture is organic when the spatial arrangement of room, house and city is planned for human happiness, material, psychological and spiritual. The organic is based therefore on a social idea and not on a figurative idea. We can only call architecture organic when it aims at being human before it is humanist.

The last sentence, in particular, includes many meanings. If architecture is based on an "-ism", then there is already a doctrine to apply. Zevi refers to the original principles of functionalism, according to which form follows function and changes with varying conditions. It is, however, important to differentiate, when that "function" rises from a dogma, or when it is based on everyday reality. Interpreting Zevi: visual form or aesthetics themselves do not determine whether architecture is organic, but instead the design and planning attitude, mentality and method of the architect must be assessed. (Zevi 1950, 71). Nicholas Ray (2005, 154-156) suggests that Aalto could very well have approved of Zevi's interpretation of organic architecture, where he differentiated between a *human* and *humanist* approach.

It is interesting that these principles are clearly found in the Kokemäenjoki valley plan as well. The wide scale of the plan and the connections to community processes required wider verbal explanations from Aalto. In addition to a map representing the entire object area, the plan material consists of text, which was published as a 27-page booklet. The text offers an interesting view of the thinking and attitude behind his planning work, so in this sense, it supplements his other production in an excellent manner.

Kokemäenjoki valley regional plan

In the 1930s, forest industry reached the standing of the leading industry in Finland. Although the war years 1939-1945 were a period of stagnant economy, the private “forest sector” continued to rationalise its operating conditions. However, the state was committed predominantly to agricultural policy, but it supported private sector by building new infrastructure like cargo ports, railroads and roads. At the same time, agricultural production was facilitated ever more by machines, thus reducing the need of labour. As a result of these processes, migration to cities started gradually in 1930s, accelerated in 1950s, and reached its peak in the 1960s - 1970s. At the same time, rural communities began to empty and the historical village structure began to break down, cities began to grow, and their hierarchic structure started to dissolve. The centralising influence of industrialisation took its first steps, causing irreversible impacts on different geographical scales. Aalto anticipated that this development would continue to strengthen. (Nupponen 2000, 131-137; Rautsi 1984)

The impact of industrialisation was also visible in the object area of the Kokemäenjoki plan that is located in Western Finland in the region of eight municipalities, of which the largest is the port city of Pori. The plan area follows the riverbed of Kokemäenjoki River from the township of Kokemäki all the way to the tip of Mäntyluoto that operates as Pori’s port. The river valley, and the traffic routes that follow it, form the structural backbone of the region. The region’s most important centres are also located along the river valley, the only urban level centre is Pori. The proportion of rural population in Finland in the 1940s was about 73%, while the corresponding figures in Western and Northern Europe were remarkably lower (Nupponen 2000, 127).

The growing forest industry spread with its production chains to wide areas of the Kokemäenjoki valley. The transport of raw material from the forest to industrial processing and from there to the ports and the railway network was to be developed more effective. This required the industrial system to be integrated with the surrounding community, characterised mostly by agriculture. Therefore housing, agriculture, logistics and industry had to be able to be planned as one entity. Before this, a regional plan of a similar scale had not been prepared in Finland. (Nupponen 2000; Rautsi 1984).

The plan had a prototype in the United States. Alvar Aalto was familiar with the operation of the Tennessee Valley Authority, established in 1933 with the aim to raise the region from the depression by developing its vitality in an overall manner. The construction of wide-scale hydroelectric power was at the centre point of planning. New dams and infrastructures had remarkable impacts on extensive areas, so there was a need for comprehensive community planning. The ideas of comprehensive planning had been already introduced by Patrick Geddes

and Lewis Mumford in their well-known writings, and Ebenezer Howard's garden city model was in the centrefield of planning discussions as well.

Aalto did not however copy models from elsewhere, but formulated the planning commission in to something of his own. In his plan, Aalto's starting point was not to create a hierarchical system based on the network of regional centres, but instead he handled the various structural elements of the region as remarkably equal. He elaborated the wider landscape as a structure-forming platform, characterised by agriculture. Aalto's method of dealing with structural elements referred to a completely new urban type. Until then, planning in Finland had been the planning of clear urban areas, whereas rural areas developed in accordance with the landowner's interests without any actual planning. Aalto also mentioned the appearance of a new community type in the plan description. This notion is one of the most interesting aspects of the Kokemäenjoki plan.

The plan was a pioneer work that influenced the official land-use planning to reach the countryside in the building act of 1952, where the planning right and obligation was transferred to municipalities. Regional planning became an official planning instrument in the building act of 1959.

Network city discourse

“Network city” can be understood as an umbrella concept for the theories that have aimed to explain the quantitative and qualitative transformations of regional and urban structures since 1990s. In this study, it is only possible to focus on a few of them. For example, Stephen Graham and Simon Marvin (2001) emphasise the importance of technical networks in urban development. Although technical networks have been key factors of urban form and structure since the beginning of industrialisation, their role during the era of globalisation is very unique. Technical networks transmit the flows of people, material and information that are crucial to economy, and their speed in production systems' increased distances is a competitive advantage.

According to Thomas Sieverts (2003), the mode of urban growth has changed in such a way that it is no longer possible to stick to the hierarchical, compact city ideal. Professional planning has limited opportunities to influence the urban form that is transformed by macro-economic powers, as well as building solutions of individual companies and households. Franz Oswald and Peter Baccini see the contemporary urban development as a planning problem that could be dealt with rational planning solutions in order to manage complexity. “Netzstadt” (Oswald & Baccini 2003) is a consistent method based on natural scientific methodology, where an urban system is analysed as a combination of its morphology and physiology. The basic elements of planning are nodes that are combined by technical infrastructures. Nodes are densities of urban structure that consist of people, buildings and infrastructure.

Francois Ascher (2004) compiles his own “metapolis” synthesis by utilising other network city interpretations. Ascher's metapolis refers to both the metropolis' qualitative variant and a regional city that consists of several cities. Qualitative differences to the previous stage of urban development stem from new kinds of relationships of people, goods and information with the city. New technology and ideological climate have enabled fundamental changes in the mobility and organisation of these three factors.

So-called landscape urbanism can also be considered to be part of the network city discourse (Waldheim 2006). The principles of landscape urbanism started to be developed in the 1990s, as researchers realised that planning that was sectorised to different disciplines, no longer reached its target, a regionalised city, where architecture, infrastructure and natural elements intertwine into a hybrid landscape that covers large regions. The terms “city” and “countryside” that were still in use, were hardly found anywhere as pure categories that traditional land-use planning was created to deal with.

Encounter of Aalto and network city

Some similarities are distinguishable already under superficial examination between the Kokemäenjoki plan and the network city discourse. To bring these to a dialogic relation, they need to meet at deeper levels. For this purpose, more detailed common characteristics are sought from both discourses. In analysing the material, following theme groups were formed: 1) new urban form and new urban qualities, 2) increasing mobility and need for integration, and 3) complexity and self-organisation. More detailed comparisons and mutual reflection of features are conducted within these groups.

It is not a case of comparison in the sense that either approach would be assessed to be more relevant from a certain perspective. Instead, reflection aims to find new perspectives for both discourses and enrich them with aspects that were not previously associated with them. In this context, reflection is inductive and purely qualitative analysis. The text content that is the subject of analysis can be included within the spheres of architectural theory as well as in substantive planning theories. Finally, the aim is to raise incentives for the debate on reforming urban and regional planning, as well as to better understand Aalto’s planning approach, and thus his entire lifework. In the following subsections, the comparisons have also been presented as tables, which aim to summarize the key features of each theme group.

New urban form and new urban qualities

Kokemäenjoki plan	Network city
<ul style="list-style-type: none"> • Coalescence of rural and urban • New built-up areas are emerging spontaneously • Emerging of a new type: regional city • Agriculture and landscape create character • Idea of a traffic park 	<ul style="list-style-type: none"> • ‘Zwischenstadt’ is irreversible • We should understand its logic • ...for being able to develop new planning principles, • ...and find out its real qualities. • Also: landscape urbanism

The core of the Kokemäenjoki plan is in Aalto’s insight of a new, emerging type of community. In the plan text it is said that “... there is evidently emerging a completely new social step that is higher than the concept of the city, which is formed by the widespread combination of industrial, agrarian, traffic-technical and cultural activities...” In other words, Aalto anticipated the concepts of *regionalisation* (Vartiainen 1988), *zwischenstadt* (Sieverts 2003) and *netzstadt* (Oswald and Baccini 2003) that emerged decades later in the planning debate. The importance of the point in question is highlighted by the fact that it is the only part in the original text that is printed in capitals.

The entire solution and character for the Kokemäenjoki plan stems from this key idea. Local conditions and geographies could not be chained in accordance with a certain abstract model that does not recognise the sources of regional development dynamics. The actual development of communities does not comply with established typologies set by designers. Instead, their complex processes always produce something new and unpredictable, hybrids that begin to live their own life.

In the 1940s, the Finnish countryside was not yet recognised as a planning object, whereas cities, on the other hand, had their own established planning systems and practices. When a rural area reached a certain population size, it became part of the official urban planning. The planning system only recognised concentrations of urban structures that were of a certain size. By identifying the emerging urban type and its characteristics, and by approving it as a valid planning object, it was possible to create an appropriate planning method and bring it within the sphere of the official system.

Now, 70 years later, an anonymous “zwischenstadt” has become the shared landscape of sub-urban life. The landscape is characterised by rapid change, efficient infrastructure, sparse land-use, standard-type production buildings and standard-type residential areas as well. The urban type that has emerged almost unnoticed has not fit in the familiar categories of planners and designers, consequently having not a ready-made development strategy or design solutions. The phenomenon was recognised among urban researchers in the 1990s and, for example in Germany, planning principles for zwischenstadt were developed. This required, however, that the morphological process of the emerging structure was studied and accepted as a new urban type. On this basis, it is possible to take advantage of the factors that strengthen the regional identity, and produce new planning principles and architectural solutions, in other words *new qualities*. (Sieverts 2003)

There are also points of converge between the Kokemäenjoki and network city discourses within the concepts of landscape urbanism. Landscape urbanism has the ability to view areas as a supporting infrastructure that enable various economic, social, cultural and ecological processes. In this sense, planning a hybrid landscape is a kind of *regional design*, where different spaces, surfaces and networks are merged together into a synthesis. Aalto's conceptions of an *agricultural landscape* and a *traffic park* (Aalto 1943) as the definitions of the one and the same area are well in line with the landscape urbanism discourse of the 2000s.

Complexity and self-organisation

Kokemäenjoki plan	Network city
<ul style="list-style-type: none"> • The real competence of the region grows from variety • Co-existence of old and new modes of production • Consolidation of the requirements of technology, nature and man > world is continuously changing • Not striving for final results > instead: creating platforms for future development (strategic planning!) • Ignoring municipal borders for relieving local potential 	<ul style="list-style-type: none"> • Diverse opportunities for actual and virtual encounters > knowledge-based economy • Consolidated municipalities form extensive urban regions > dissolving hierarchies • Hybrid regions and buildings • Bottom-up urban and regional development > consequent complexity • Cities are only partly planned, they also evolve 'from below' • Strategic planning • Flexible urban structures • Resilient (and robust) planning and cities

<ul style="list-style-type: none"> • "From cell to cell towards the coherent whole" • Not sticking to administrative sectors and borders, no totalising order • To have confidence in local competences in regional development 	
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Aalto also acknowledged *complexity* that has now become a fashion term in the 2010s in both architecture and urban planning. Aalto considered complexity a consequence of the contradiction that was in principle a part of human existence. He often spoke about "small man" and "human error" that are reflected in our built environment as contradicting needs and results. On the other hand, Aalto also emphasises that local development dynamics and vitality stems from bottom-up diversity, which should not be suppressed by too much administrative guidance. Even municipal borders must not chain local dynamics. Instead of a complete outcome, Aalto viewed his plan as a tool for managing a continuing transformation process of the region. This was finally identifiable in the enabling and potential-raising strategic nature of the plan.

The regional development dynamics described in the Kokemäenjoki plan are closely related to metapolitisation, although the latter has formed in the context of large cities. Metapolitisation is considered the most recent phase of metropolitan development (Ascher 1995; 2004; Ylä-Anttila 2010). Its main characters are increased complexity and qualitative transformation that have taken place in cities. Changes have been driven by economic globalisation and the enabling technical infrastructures for the flows of people, information and goods. The increased diversity of technical networks, their increased transfer capacity and the geographical scale have increased urban complexity with their ability to network different actors and locations in real time, as well as opening opportunities for various encounters, both virtual and actual. Companies, individuals and households utilise these opportunities, for example, in their own location decisions, so the impacts on the wider community cannot be easily anticipated (c.f. Portugali 2000).

The common requirement for the Kokemäenjoki plan and the regional planning of the 2000s is the elimination of uncertainty. Uncertainty is a result of complexity that stems from the interactions between regional actors and networks that are difficult to anticipate. It is increasingly difficult to prepare plans that could be valid for several years. Economic activities related to construction and other land use activities, however, require predictability, because investments are large and prone to risk. Planning should therefore create both permanence and allow change at the same time.

The problematic nature of the situation is partially due to the manner we understand "planning". As a heritage of the era of modernism, it has become a habit in planning to provide complete outcomes. Now, "resilient" planning has come up in debate (Davoudi & Porter 2012). The concept of resilience raises the need to better identify the emergent nature of the operating environment and the ability for self-organisation. In order to be effective, planning should involve co-evolutionary activities, where authorised planning genuinely give space for bottom-up development impulses to increase regional dynamics. So, in planning the regions should be treated, above all, considering the development potential they have. Aalto understood already in the 1940s that the objectives of planning should not primarily concern the traditional objects

of regional planning that are easy to present with maps. Instead, they should aim to define desired regional qualities and processes.

Increasing mobility and need for integration

Kokemäenjoki plan	Network city
<ul style="list-style-type: none"> • Growing importance of transport systems for regional development and economic success • Importance of fast connections > to exceed all distances • Mutual integration of multiscale transport networks • Growing need for planning larger areas > reconciling contradictory functions and interests • Cultural integrity of the region • Integrating the region into national industrial systems and infrastructures • Technological and economic development generates decentralisation and centralisation at the same time > this should be regulated by regional planning • Planning simultaneously in different geographical scales > linking the scales together • In his regional and urban plans, Aalto always combined master scale, detail plans and architectural design 	<ul style="list-style-type: none"> • Relational conception of space • Accessibility and 'new' centrality • PIG-networks (People, Information, Goods) • Tunnel effects and premium infrastructure networks • Built environment as infrastructure • Strong mobility networks enable large urban regions • Strong economic actors are prioritised in building connecting networks • Weaker (social & cultural) actors will be easily fragmented • Efficient infrastructure networks have splintered urban structures • Cities are already applying methods of integrative planning • Node-field in lower level forms a node in higher level plans • Functional and virtual networks link scales together

Aalto had a very modern view on the interdependence of various geographical scales. National networks extended their influence at local level, but on the other hand, local actions reflected their influence on wider scale networks. Therefore, Aalto worked on several scale levels at the same time. In his view, communities formed a functional and scenic entity that flowed through scale levels, where the local environment of people was just as important as the functioning of an industrial system. Aalto saw that the fragmentation of the regional structures would eventually also cause the weakening of socio-cultural integrity. For these reasons, it was necessary to plan wider regional entities, and ensure that these plans were also backed by legislation.

Even in network city discourse the disadvantages are created by neoliberal economy-driven development. Participation in the global economy requires good connectivity for economic key areas between companies and cities in different geographical scales. Effective connections require the utilisation of the latest technology: fibre optic communication connectivity, fast air bridges, long road bridges, tunnels through mountains and under sea, super-fast trains and so on. Establishing such connections is so expensive that only successful economic operators and regions can afford them. These connections, or “bypasses” (Graham & Marvin 2001) may, however, easily cause so-called tunnel effects, which means that connecting to the fast flow can only take place at either end of the “tunnel”. Consequently, the urban structure based on “tunnels” or “bypasses” easily cause physical and even social barriers to urban development.

Cities' reaction to harmful fragmentation has been to apply integrative planning and design tactics (Ylä-Anttila 2010). The aim of integration is to open the blocked "meridians" of a city in the same way as in acupuncture (Ellin 2006; Lerner 2014). It is not just a question of the physical integration of the urban structure, but rather the diverse vitalisation of urban life by opening new connections. If the "bypasses" were built to vitalise economy, integration also refers to socio-cultural re-integration of the city. Although Aalto did not talk about integration or urban acupuncture, the Kokemäenjoki plan included similar objectives.

From Alvar Aalto to Network City

For Aalto, a wide-scale regional plan was, above all, a tool for regional development. However, once regional planning has started officially in the 1960s, it emphasised traffic planning and regulatory aspects. Since the beginning of the 1980s, land-use planning has gradually changed from regulatory to strategic development planning. Planning methods and processes have had to be adapted to project-driven implementation logic, as the dynamics of regional development has increasingly become the responsibility of the private sector. Another reason for the decreasing need for regulatory mode is the certain completion of regional basic structures. Large infrastructural lines have been constructed and the main areas to be protected have been defined, so the same strong regulatory approach is no longer required.

As a result of this paradigm change, regional planning is becoming more of a strategic development tool for communities and areas instead of a governmental regulatory system. The normative framework for this change was written in the Land Use and Building Act in 2000, where regional planning was provided with clearly enabling role for supporting EU-oriented regional development. In practice, regional planning can rise to this paradigm change only partially, until the actual planning methods and tools will be updated in accordance with the changed conditions.

In regional planning, the strategic approach has been adapted mostly in structural models, where development priorities and zones as well as cooperation networks and related devices have been applied instead of the hierarchical control. The problem with the models is, however, their affirmative habit to present the current situation, and the over-optimistic distribution of common good. They are not able to present the qualitative features of regions or their local potential or connections to development projects. Generalised descriptions have left it a mystery as to what can actually take place at the hot spots of networks and zones. The structural model is easily left half way of the description and the plan, thus becoming a vague description of desired situation, not channelling its effects to a project level.

On one hand, the top-down nature of regional planning is explained, at least partly, by its obligation to regulate the implementation of national land-use objectives. Of course, regulation is necessary, but combining regulatory and developmental aspects requires the planning instrument to be updated. In addition, regional planning is often considered municipal lobbying, where welfare, growth and infrastructure projects will be distributed according to the principle of "all for everyone". In general, the problem with regional planning is its weak connection with regional development. Although planners and developers often work in the same institution, there is a lack of practical tools for further cooperation.

By contrast, Aalto's approach emphasises the qualitative dimension of regional planning. This is a typical approach for design, and it is still topical today. Qualitative approach to planning aims to respond to transformational pressures that stem from the contradiction between economic austerity and the ideal of continuous growth. Despite wishful thinking, quantitative growth can no longer be considered a realistic objective everywhere, but vitality must be maintained by producing new qualities. This means that when developing regional structures, the preservation and strengthening of the identity of places should be ensured (Bölling & Christ 2006, 177-181, Ylä-Anttila 2010, 190). In practice, each building project should not only meet quantitative objectives, but also open opportunities for qualitative improvements. These can vary from more abstract perspectives (identity) to very practical issues related to everyday life quality (intermodal transportation, accessibility of services and the general attractiveness of the environment). Aalto has proved that design-based approach in planning is not tied to detail scale only. Instead, it can be applied to various scales. Regional design provides the environment with character and significance based on its own unique features. (See also Meijsmans 2010.)

Conclusions

A design-type approach in regional planning could be reached by increasing our understanding of organic planning. In context with our current regional planning discourse, the proposal sounds very untrendy. This is largely due to the understanding of "organic" as a superficial imitation of nature, or as cities' traditional way to grow by extending urban fabric seamlessly. By studying Aalto's work, we are able to widen our understanding of organic planning. Aalto himself avoided theorising his work, but still often referred to organic as a design principle. These references lead to two directions: a) nature's morphology and processes, and b) the deep-organic principle (Hynynen 2014), which does not rely on any preconceived models, theories or metaphors (like e.g. "network"). Instead, the aim is a contemplative relation with the real-world conditions that will be refined up to a higher level towards ideal, not the other way round.

Aalto applied both types of organicity in the Kokemäenjoki plan. A good example of *morphological organicity* is the cultural landscape that Aalto respected and took as his starting point in planning new housing areas according to the traditional ribbon-like village structure. The main transportation routes were bundled down by the riverside zone, thus leaving the most important landscape areas untouched. Such design principles were common in Finland until the early 1960s. From then on, technical planning principles replaced them and new residential areas were built within a rectangular road network. The importance of soil was no longer decisive for building foundations, nor was the road network adapted to the landscape structure. This phenomenon materialised throughout Finland at the same time.

The deep-organic principle run through all of Aalto's planning and design work. He did not incorporate any complete model as a starting point for planning, although such were available. In international planning debate the relation between city and countryside was a crucial question. Ebenezer Howard's garden city formed a theoretical core for debates. The uncontrolled growth of cities was considered a threat that was aimed to be balanced by directing growth to nearby rural areas into units that were effectively connected to the core city with transportation networks. Aalto's approach was not as hierarchical. Instead, he took the current real-world situation as his starting point.

Aalto himself viewed planning as a rather independent and even emancipatory type of human and social activity. According to him, planning has a potential that societies can utilise when desiring to steer development in a direction that is humanely dignified. This viewpoint is evident in an article by Aalto from 1949, "Finland as a model for world development", in which he calls plans "...ethical tools for achieving progress, curbing excess concentration, guiding us where blind development fails..." (Aalto 1949). He also spoke on many occasions about how planning is a means by which cultural forces are brought to the built environment that otherwise might be dominated by technical-economic interests.

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