

## Traditions of research in architecture: Finnish trends

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Finnish trends in research in architecture are described and related to three traditions of research: the subjective idealistic, the empirical positivistic, and the hermeneutic interpretative traditions. The influence of the contexts on research are discussed.

**R**ESearch IN ARCHITECTURE could be described as a process in which reality – architecture – is continuously observed and analyzed, with the previous observations and analyses adjusted according to new knowledge. When the object of inquiry is research itself, a similar continuous process occurs. In describing the state of Finnish research in architecture, I want to focus the perspective on today: how the research has evolved into what it is at present and what potential it holds for the future.

My interest in these issues goes back to the early 1970's when one of the topics of discussion was the dependence or the independence of research in architecture in general. It was widely accepted that research in architecture was about applied research based on "real" disciplines like the natural sciences, psychology, or sociology. Some pursued the idea of finding the theory of architecture (emphasis on the singular). Many questioned the possibility of an independent theoretical basis for research in architecture. In

my opinion, research in architecture can develop into an independent field of study.

To qualify as a discipline, research in architecture has to be addressed as a totality, comprised of not only separate studies or trends, but of studies which relate to each other, forming traditions of thinking (schools of thought) and based on an understanding of their philosophical roots. The prerequisite for formulating a discipline, then, is to be able to locate all the existing studies of the discipline within one frame, one structure, indicating the different traditions and explaining their differences at the basic paradigmatic level. This article presents research in architecture as a discipline in that sense.<sup>1</sup>

My conceptions are drawn from a long-standing interest in research in architecture, not only in the Finnish context but also internationally. The topics have extended beyond architecture and have included particularly the humanities – sociology, psychology, anthropology, human geography, and, of course,

philosophies and histories: of art, of society, of science; I have had less interest in research with a technological slant.

In the article, changes in the trends of Finnish research in architecture during the last forty years are first described. The focus is on the shifts in the objects of study, methods, and international references; some major research projects are identified. Next, Finnish research in architecture is related to three traditions of research in architecture. Finally, the state of Finnish research in architecture is discussed in the Nordic and the international context.

### Trends

Until the 1940's and 50's, Finnish research in architecture had concentrated almost totally within history. The first initiatives towards an enlargement came from the needs of practice and resulted among other things in the founding of the Standardization Institute by the Finnish Association of Architects SAFA. The early trends within research were closely related to the rebuilding of the nation after the Second World War when over 300 000 Karelians were resettled. At the same time, Finland was being rapidly industrialized and urbanized. The growth of the Finnish middle class and the building of the welfare society had begun.

*Dwellings.* In the 1950's and early 60's, Finnish architects participated in the housing program, with the goal to produce good standard housing on government supported loans for families in need. Within research, various types of apartment blocks were compared. Rooms of apartments were studied from the point of view of use: habitability, furnishing, dimensions. Swedish and Danish studies, and to some extent German ones, were extensively referred to, and their results were applied to Finnish conditions. In the early 60's, studies on the habitability of the apartment in a block were popular.

At this time, the emphasis was on measurable criteria: the physical features of rooms, furniture, apartments, and blocks. The analyses of habitability, particularly of various rooms, were based

on comparisons with standards and norms. Technical research on building systems involved also architects.

Later in the 1960's, the interest in apartments gradually shifted to housing areas and the city as a whole. One of the culmination points was the AR – Housing Reform Competition where the emphasis was on housing policy and on technical solutions of housing. Also at this phase, Swedish and Danish developments were closely followed. The social aspect of housing became more important, and the criticism of purely residential suburbs increased. Some architects sought for answers from sociology, others from psychology. Maslow's hierarchy of needs was often quoted in both kinds of research. Sociology seemed to appeal to those involved in the design of neighborhoods or cities, while psychology attracted the more traditional building designers.

*Behavior.* The psychological approach was supported by the interest of psychologists towards environmental studies. The behavior of people in the environment was analyzed in relation to traffic, children's play and in housing areas as totalities. With the psychological approach, new methods were introduced into the research on housing. The use of survey techniques meant a shift from measuring environmental characteristics to studying the reactions of people living in the areas. Among the studies most referred to was the Danish "Taet lav – en boligform"-project which directly influenced several studies of Finnish housing areas. The assessment of housing was studied in several projects with questionnaires directed to potential house buyers and with surveys of the inhabitants.

*Towns: Structure and Image.* In the profession, urban design and planning were rapidly gaining interest. More urban designers were educated and more job opportunities were opened. It had been supported by studies of cities, initially by Otto-Iivari Meurman's book (1947) which conveyed English and German ideas of town planning to Finnish readers. The urban studies of the 1960's focused on urban

structure and regulations which has continued as one of the trends within urban studies.

In the 1970's, many more architects than earlier got involved in research projects which started to receive funding from a number of sources, including governmental, municipal and private money. Research was conducted both on cities and on residential areas. The three most popular books among urban designers were Kevin Lynch's *The Image of the City* (1960), Serge Chermayeff & Christopher Alexander's *Community and Privacy* (1963) and Jan Gehl's *Livemellem husene* (1971). All three appealed to architects who believed architecture to be a question of emotions, of individual creation.

The prime urban research project of the early 70's was "Kaupunkitutkimus 70" ("The Study of the City 70", 1971) which centered on the medium-sized Finnish town and its development in the next decade. The project was multidisciplinary, involving six research institutions ranging from urban design and planning, geography, and sociology to traffic engineering and economic geography. The goal of the study was to generate results which could be used by any Finnish medium-sized town. The researchers wanted to avoid theoretical approaches which were alien to practical design and which had become too common in urban research. References were from England and the United States.

*Housing.* During the 1970's, research on housing areas was continued on much the same basis as earlier, with norms as the conceptual frame of reference. Research projects included studies on the quality of the environment, the processes of design and building of residential areas as well as the development of guidelines for designing housing areas. Most studies focused on areas with apartment blocks, built during the 1960's and 70's.

One of the most extensive was a study on renewing urban environment in Tampere ("EU", 1976), involving researchers from urban design, building design, sociology and psychology. The initial goal was to develop indicators of the quality of residential areas and model solutions

of neighborhoods and blocks, as well as generate norms and guidelines for design; to find ways to combine theory with practice, research with design. During the research process, the goal was changed and the results were presented as analyses of each area, based on the extent of use of different age groups of users. In a sense, the EU project was one of the milestones in Finnish architectural research, marking an extension from the previous, technically oriented, empirical and positivistic studies towards more humanistically and culturally oriented, hermeneutically inspired studies. The research line has been continued in other studies at the school of architecture in Tampere, for example on urban space as a social structure and on the spatial structure of the industrial city.

*Archetypes.* During the 1980's, the concept of architecture which emphasized individual experience regained its popularity among the practising architects. Its followers wanted to be dissociated from the theorization attached, for example, to technical studies or to analyses of the city. One of the influential thinkers referred to was Christopher Alexander and his "pattern language", others included C. G. Jung (psychology) and Claude Lévi-Strauss (anthropology). Their common denominator was the idea of collective experiences which generate archetypes shared at all times by all people regardless of their culture. This line of thinking has been popular within the profession and has been actively spread to the general public, both in Finland and internationally, by the "gurus" of Finnish architecture.

Similarly, the books by Christian Norberg-Schulz – particularly his *Existence, Space and Architecture* (1971) and *Genius Loci, Towards a Phenomenology of Architecture* (1980) – have influenced the way architecture is perceived by practising architects and some researchers.

*History.* The traditions of research within the art history of architecture have influenced also research by architects. This has strengthened the documentative and monographical approaches. The mainstream of the more recent historical

research within architecture has been related to conservation guidelines and practices.

Monographs of architects have been written earlier mostly at the university but recently also in the Museum of Finnish Architecture. Outside the art historical institutions, Göran Schildt's books on Alvar Aalto have a special character because of Schildt's close friendship with Aalto and his background as an author. Roger Connah's book on Reima Pietilä was also the fruit of collaboration, and discusses, in a remarkably unconventional manner, the wide variety of sources of inspiration of Pietilä's architecture, relating it to developments in philosophy, literature, and art.

*Multidisciplinary approaches.* In the 1980's and 90's, the most interesting developments have occurred within multidisciplinary approaches, regardless of their philosophical orientation. The recently completed ESSU project – "The beauty and quality of built environment, aesthetically qualified environment and new planning techniques" (1991) – illustrates the present state of empirical research. The goal was to develop design methods in which the most advanced computer technology is applied and which would increase the use of aesthetics and other qualitative criteria in the design of environments. The research group involved architects, urban designers and planners, sociologists, philosophers, aesthetic theorists, and computer experts. The result of the research resembled a collage: several inputs on several topics ranging from planning policies to understanding architectural drawings and the use of computer techniques. The emphasis was on the processes of research where new links between various fields of study were opened. The outcome of the processes was no one theory or model, but rather a step towards a kind of a synthesis in which the empirical study of the object was the unifying factor.

Another large study, on the future of urban centers, will be finalized this year. Initiated by the geographers, it has involved researchers also from sociology, social policy as well as urban design and planning. The goal was to analyze the

state of Finnish urban centers in relation to international and national processes of restructuring. The multidisciplinary approach was seen as one of the means to improve cooperation and exchange between traditions and practices of different fields.

*Theory and philosophy.* In Finland, attitudes towards theoretical studies have been particularly revealing. The practical orientation of the bulk of the profession has supported the idea of theory as useless; this attitude equates "theory" with "playing with abstract ideas". At its most positive, this kind of activity has been seen by the profession to resemble theological contemplation. At its most negative, the activity has been seen by practitioners as throwing around big words without understanding what architecture (design) is "really" about.

Among researchers, however, there has been a continuous line of interest in theories from the early 1970's until today. In the beginning, the studies were related to theories of planning and design methodology. In the 1980's, the inputs to the theoretical development of architecture started to be adapted from philosophy, in some cases because of NORDPLAN's orientation. Earlier references came from England and the United States, more recent ones have included France and Italy. One of the forums for discussion of architectural theories and philosophies has been the irregularly published journal *Datutop*<sup>2</sup>.

Now, a wide variety of studies, ranging from the application of linguistic formalism and social utopias to literary references seem to be called theoretical research. Their common characteristic seems to be their distance to reality understood as the built environment of today. Theories which would explain the relationship between people's lives and their environments are still rare; this assessment, of course, seems to apply equally to research on the Nordic or international level. In the best cases, the recent popularity of philosophy may, with time, generate studies in which articulated theories are used to establish the bridge between the philosophy accepted, the problems formulated, the metho-

dology developed, and the concrete phenomena selected for the study.

### **Traditions of Research in Architecture**

Finnish studies in architecture can be analyzed in relation to theories of knowledge. Three traditions of research – three schools of thought in architecture can be distinguished:

- the subjective idealistic tradition;
- the empirical positivistic tradition, and
- the hermeneutic interpretative tradition.

Each tradition contains an interpretation both of what reality (e. g. architecture) is like and of what it should be like, based on the world view and values. The philosophical basis of each differs from the others fundamentally; in this sense the three are paradigmatic. They are not phases of one process, but separate parallel traditions. All three traditions exist within research in architecture today.<sup>3</sup>

*The subjective idealistic tradition.* Within the subjective idealistic tradition, architecture is seen as art, as experiencing. Environments are seen to be created by individual designers and experienced by other individuals, partly on an unconscious transcendental level. In art history, the tradition can be perceived in artists' monographs which are based on the assumption that the contribution of individual creative persons is by far the most important in the development of the field. In a sense, the history of Finnish architecture is written through geni like C. L. Engel, Eliel Saarinen, Alvar Aalto, and Reima Pietilä. In addition to these, the trends attached to psychology, images, archetypes, and phenomenology are part of the subjective idealistic tradition.

The subjective tradition emphasizes the experience of the individual. Its objects of study are totalities, using surveys or other methods of how people feel about places. In theories of knowledge, this attitude is defined as idealistic: Observations about the real world are considered to be less important than the emotions generated in the individual. All subjective experiences are equally valued if they are true; in this sense, the tradition

is relativistic. The emphasis is on the present; interest is on what is eternal, unchanging.

*The empirical positivistic tradition.* Within the empirical tradition architecture is seen pragmatically: As a means of finding spatial solutions to some of society's problems like mass housing and urban growth. To empiricists, architectural design is about the transfer of techniques, an unpolitical use of knowledge and skills where methods form the core.<sup>4</sup> The objects of study are the physical elements of the built environment. Methods are descriptive and based on empirical data: observations of buildings, streets, the amount of traffic and the like. Architecture is seen as an aesthetic aspect of basically an engineering activity. In this process, research in architecture is considered useful when it produces unambiguous, measurable and standard solutions to rationally formulated questions; this is the pragmatism of the empirical tradition. Trends which emphasize documentation, measurements of dwellings, set standards and technological solutions are part of the empirical positivistic tradition.

The empirical tradition reflects a scientific world view where the natural sciences are considered to be the measure of all research. In theories of knowledge, this attitude has been called positivistic. Reality is seen as comprised of facts that can be observed, measured and categorized; there is the illusion of only one objective truth. History is seen as linear development to something better, logically and causally. The focus is on progress in the future.

*The hermeneutic interpretative tradition.* Within the hermeneutic tradition, architecture is seen neither as art nor as engineering, but as a cultural expression of the values of society. The objects of study are totalities, for example, the city as a result of a long process involving both physical, economical, social and cultural changes. Phenomena are analyzed in relation to their context, to their history, and to the factors that have moulded them. Within the hermeneutic tradition, research in architecture is a necessary part of the design process. Research opens pos-

sibilities to a deeper understanding of the relation of architecture to cultures as entities. Both research and design produce and reproduce culture; both produce and reproduce architecture as culture. Trends which emphasize the historical evolution of processes, the differences of sub-cultures and the integration of disciplines are part of the hermeneutic interpretative tradition.

The interpretative tradition emphasizes the position of values: both of the researcher and of the cultures studied. The researcher is seen as an interpreter of the cultural context. According to humanistic traditions, both objective and subjective knowledge are vital, neither is sufficient alone. In theories of knowledge, the approaches that stress understanding are called hermeneutical. Reality is seen as pluralistic, where the existence of more than one truth simultaneously is not only possible but probable. History is seen as the key to understanding, with the emphasis on the continuum, on the integration of the past, the future and the present.

### Contexts of Research

The field of architecture could be illustrated with a diagram of the priorities maintained within the different traditions of research in architecture. In the diagram, the four sides represent the main interest and activity areas: art & craft, praxis, technology and culture. The field is defined through indicators describing the distribution of



Diagram. Sketch of the field of architecture: the distribution of practices and their relation to the concepts of architecture as well as to the dominant traditions in some countries.

educational and research practices within architecture; their position reflects their relation to the concepts of architecture. The names of countries indicate how the dominant tradition relates to the concepts of architecture; needless to say, there are different traditions within a country and may be even within a school.

The mainstream of architectural research in the Finland of the 1970's was empirical, serving the administrative needs of the government and municipalities who were also the major funders. This was apparent not only in the activities of government research institutions but also in schools of architecture. Research was seen as something to be used to directly benefit practice: to improve the control of quality of housing areas and dwellings, and determine the planning of cities. This was also the time when the pragmatically oriented architects dominated the public image of the profession.

In the 1980's, the idealistic tradition of architecture – the traditional theme of "architecture as [only] art" – was re-established in the profession much in the same way as earlier. The position of research was paradoxical: while the idea of conscious analyses of architectural phenomena was strongly rejected by the profession as useless or harmful, the fact that outsiders attached prestige to research was recognized by the profession. Because of this, the boom of architectural competitions lead a number of architects to maintain, publicly, that for architects, design competitions are a kind of research. Within research, psychological and subjectivistic approaches became more popular.

The conventional, subjective idealistic concept of architecture has been adopted by a large majority of the profession. Needless to say, the gurus of Finnish architecture, the ones who formulate what Finnish architecture is and what it should be for foreign audiences, are all representatives of this approach. This is the philosophy of the establishment of the profession. Within research, the majority of historians of architecture and of art seem to follow this tradition.

Today, the accepted view of research maintains its technological character: "real" research can be identified by indicators like the rationality of the decision process, the objectivity of the criteria used, the norms and standards referred to, the measurability of the methods, and the testability of the solutions. The problems selected for in-depth studies tend to follow the technocratic expectations of the profession. The link with design has appeared in some studies through design solutions or technical innovations, generated by the researcher. Critical analyses of common practices can seldom be found.

Discussions about the philosophical basis of architectural knowledge are very few. Philosophy in architecture has become to equal diffuse definitions imbedded in essays by architectural gurus whose deepest message to the masses has been: "but most of all, architecture is art, and cannot be analyzed". With the exception of some individuals, the usefulness of philosophy also in deciphering architectural discourse has usually not been understood.

The hermeneutic interpretative tradition develops in close contact with the social sciences and histories. Its international contacts seem to generate fruitful discussion and development of theories which partly go outside the present interests of the practitioners. In terms of depth

and scope, the hermeneutic tradition seems to hold good potential for developing research in architecture into an independent discipline.

At least partly, the positivistic and uncritical nature of Finnish research in architecture is due to the prevailing professional practices in Finland. As long as design merits are valued more than research merits, also in universities, most researchers will try to pursue studies which directly link with design, i. e. technocratic and pragmatic research.

Research, then, is not only about generating problems to be answered. Most of all, research is about traditions and conventions of research; about the practice of research. A large portion of Finnish architectural research is produced in isolation, also in relation to the international research community. The results are fragments, not only because they are produced separately, but also because the researchers do not perceive themselves nor their approach as part of larger entities, traditions or schools of thought.

The potential of research in architecture can be fully exploited only through intellectual exchange between different disciplines, different countries, and different traditions. In every sense, research in architecture in the 1990's and 2000's will be about crossing boundaries.

### Notes

1. Part 2 of this article is based on Kervanto Nevanlinna 1985, 1987 and 1990.
2. *Datutop* – Department of Architecture, Tampere University of Technology, Occasional Papers – was founded in 1982 by Jorma Mänty, is edited by him, and is published by the school of architecture in Tampere.
3. This contradicts Thomas S. Kuhn's view of the development of "normal science" in which one conceptual world view is replaced by another.
4. See also Sandström 1989, p. 271.

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Denna artikel har granskats vetenskapligt av minst två av de lektörer som anges på sidan 152.

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