EPISODE AS A UNIT OF ANALYSIS OF MOVEMENT

*Seppo Aura*
Tampere University of Technology
Department of Architecture

Everybody who has read his Gordon Cullen or his Edmund H. Bacon knows that movement has long been recognized as a factor in environmental planning in many ways. For example, in the traditional Japanese promenade garden the importance of movement has always been appreciated. The promenader gains an intense experience of the succession, variation and rhythm of the surrounding scene. The spaces and paths lead him from one stage to another.

The spatial structure of the Japanese promenade garden, as well as of traditional Japanese architecture in general, is joined most intensively to time and motion. The environment is in relation to the flow of change in many sense, both concretely and existentially.

Taking an example of western urban environment. Here perhaps the most marked sequential spaces are to be found in small medieval, mediterranean towns. Thanks to their organic growth, narrow and winding streets and

*Figure 1*
A streetscape from old Rauma, in Finland.
the emphasis on public squares, most of them provide exciting experiences if the observer is only interested in seeing the townscape from the point of view of movement. There are also examples of this kind of environment in Finland. In old wooden towns like Porvoo and Rauma one can still find varied and rhythmic streetscapes and networks of streets and squares, together with a human scale and an almost timeless atmosphere.

One could say that such an opportunity to experience spaces sequentially, or as serial visions, is an important dimension for us, especially as pedestrians. As Gordon Cullen has shown there is in any urban environment much scope to heighten this experience. For example, by creating a sense of ‘entering in’ some place, ‘leaving for’, ‘moving towards’, ‘turning into’, ‘walking through’ some place or ‘following on’ the flow of spaces.

Or, as Edmund H. Bacon has said, the departure point of good town planning should be that the successive towns spaces give rise to a flow of harmonic experiences: present experiences merge with earlier ones and become a step towards a future. Or, again in the words of Donald Appleyard, Kevin Lynch and John R. Myer: “The experience of a city is basically of a moving view, and this is the view we must understand if we wish to reform the look of our cities”.

**THE SENSITIVITY TO MOVEMENT**

One could maintain that at the beginning of this century many artists and architects were more aware of this dynamic dimension than others before or after them. We need only recall the cubists who were not content to construct scenes from a constant, fixed point according to the rules of perspective. Instead they ‘turned around’ the objects and showed them from different angles simultaneously, none of which was more predominant that the other. Thus they attempted to capture the inner essence of the objects and the temporal duration of the experience. In this way the cubists tried to add the fourth dimension, time, to the three dimensions of the Renaissance.
The cubists clearly exploded the traditional concepts of spaces and form. A feeling of movement or change was created and the perception of it required inner activity also on the part of the spectator.

These views of the cubists were soon also adopted in modern architecture. The 'space-time phenomenon', which in a Cubist painting was created by the presence of different spatial elements, was created in architecture by the spectator moving himself in the spatial environment, which changes according to the movement. It is as though the open plans, connections between inner and outer spaces, and fluidity of spaces in modern architecture free and imply movement. The spatial world is created in the mind of the mover; time is a central factor in experience.

This spirit of Cubism can be seen for example in Le Corbusier’s architecture as spatial stratification along the depth of axis. The principle is most evident in his designs for Villa à Garches and Villa Savoie. In form, both are abstract space cubes in which different geometrical elements are freely arranged in relation to each other. The different elements of motion, such as ramp, spiral entrance and two-storey space lead one inside the building. All elements are combined into a close composition, by a collagist approach, and conceal one another. When one wanders through such a building, one sees a series of elements which, as they are partly concealed, create a tension between them.

Among others László Moholy-Nagy spoke of 'vision in motion'. He noted that architecture had developed from a closed space into the modern building in which the interior space is connected with the exterior and the space is thought of as flowing. 'Vision in motion' meant for Moholy-Nagy the rejection of the fixed viewpoint and with the emphasis on a field within which the relations of the phenomena are constantly changing: “...it is to grasp phenomena simultaneously: to see, feel and think of them in mutual relations and not as separate units; it is to see during motion; it is synonymy to simultaneousness and space-time which refer to a new dimension”.

A similar view was realised, for example, in the
architecture of Alvar Aalto. Among other things it was characteristic for him to bring exterior space partly inside a building and thus to emphasize the flow of spaces. In his early works he achieved this by using the walls of an entrance-hall which were facade-like and which introduced an atmosphere of exterior into the hall. In his later works the exterior and interior are connected by a free-form joining zone.

Figure 2
The wholeness unfolds gradually when one walks through the Fallingwater.

Important in this connection is the architecture of Frank Lloyd Wright and especially his Fallingwater. One of the fundamental principles in its design was the intimate relationship with its site. Secondly, Wright saw that the mutual relationships of the parts of the building and their relationships with the whole should not appear fixed. They had to have something of the flexibility and form change of plant growth. Both these principles - roots in the ground and free growth - gave rise to a building which is very dynamic and which can be experienced only through motion. This building cannot be grasped as a whole from only one viewpoint. As Norris Kelly Smith has described: “The wholeness unfolds gradually as one walks around and about and through the building, discovering new vistas, new rhythmic patterns, and new phrase-like groupings of its innumerable parts, all of which have the same simple and noncommittal uniformity of individual notes of music. It is especially in the quality of this
temporal experience, coupled with the openness and apparent extensibility of the house, that the idea of growth and change comes. The experience is dynamic.”

Later, in the 1960’s and 1970’s this dynamic dimension of time and motion was, however, neglected by the exponents of technical-economic values resulting in monotonous built environments. And although the concept of time is revived with the increasing interest in preserving old buildings, and although many post-modern architects have endeavoured to introduce traditional architectural forms, nevertheless, there is still a lack of consciousness of time in the form of ’vision of motion’ in present-day architecture and urban planning. Similarly, there is still no architectural policy for embodying an aesthetic, social and psychic content of the built environment in general.

THE CHALLENGES AND TECHNICAL EQUIPMENT

Today such neglect presents architecture with challenge of reevaluating the importance of the vision in motion, the serial visions and the fourth dimension. And now, partly because of highly sophisticated technical equipment like the endoscope and the environmental simulator, we do have better technical opportunities than ever to deal with this dimension. Briefly stated, this equipment enables us to study the dimension of motion more easily, more concretely and more analytically than ever before – and even at the earliest stages of planning.

On the basis of our experience here in the Department of Architecture, planning which employs the environmental simulator as a tool has clearly created new ideas on planning. This is nowhere more evident than in our students’ exercises. The elements of environment, such as spaces, facades, masses and details are no longer seen simply as separate units; instead these elements are assessed in relation to the experience of movement.

This change in thinking can be better seen if we compare the student-exercises done before and after the simulator was introduced here. Earlier, before we had the
simulator in use, the massed forms were quite static in nature. A typical residential area planned by the students contained static, closed inner yards and separate groups of buildings. The circulation system was often superimposed after the siting of buildings and landmarks were distributed according to overall aesthetic pictorial arrangements.

However, after the introduction of the simulator students soon learned to see the planning area in a new light.

Figure 3
The entry portals, rhythmic breaks, building forms, landmarks and planted elements serve the purpose of improving the experience of motion.
This is now considered from the vantage point of the man in the street who is walking around the area. There is now greater emphasis, for example, on the point of arrival in the area. Consequently, new elements are introduced, such as entry portals and various kinds of gate themes. There is also an obvious attempt to provide the experience of moving through the environment with rhythmic breaks. Building forms, together with planted elements, give direction to motion. Landmarks now serve the purpose of improving the experience of motion.

The use of the simulator has clearly enabled the students to see planning no longer simply in terms of a bird’s-eye perspective but in terms of adjusted eye-level vistas and with impressions of movement at street level.

THE NEED OF A THEORY

In addition to technical equipment, however, we also need new basic concepts and guiding theoretical principles by which to analyse the dimension of motion.

Neither the historical examples of dynamic urban planning and architecture nor the technical equipment are sufficient in themselves. Along with them we must be able to analyse, for example, what is common to those different sequences of spaces which promote the feeling of well-being. We must be able to generalize about the qualities which make one sequence of movement more interesting than another. We must be able to define what kind of dimension we are, in fact, striving for by the use of the endoscope and the simulator. What is the essence of the psychic experience of time and motion? What are the potentialities of this dimension to which we could pay more attention in future.

These were the questions I posed with professor Helmer Stenros after some years of technical experience with the simulator. We became increasingly interested in a theoretical sense of what is really meant by ‘time’ and ‘motion’ in architecture. As a result we started gathering material on this subject. This was done mainly on the basis of the existing literature from different areas, such
as the psychology of time, social psychology, environmental and ecological psychology, and to some extent from philosophy and the history of architecture.

These studies led us to wrote, in collaboration, our book “Time, Motion and Architecture” in 1987 and two years later published, in Finnish, my dissertation “Episodi liikkumisen analyysiyksikkönä” (Episode as a unit of the analysis of movement).

THE THEORY OF EPISODE

On the basis of our investigation we have, for example, attempted to answer the question of what is common to different interesting sequences of spaces. We maintain that most of them can be characterized as solid, integrated episodes of movement. They have their beginning, their internal development, and their end. One space flows into another through movement, developing further the reciprocal effect of time and space.

At best one could compare the experience of the sequences of movement with musical composition. When we listen to a piece of music we do not hear separate notes but rather melodies or tensions between the tones. What we have listened to is then recorded in our memory and this, in turn, determines how we expect the following tones to sound. In music the separate tones are not in themselves significant but more their collective interplay. In other words, those sounds we are listening to in the present also include elements of the past and what is to follow. In addition there are many main- and subconstructions within a compositional work as Victor Zuckerkandl, in particular, has shown in his theory of music.

In the same way in an architectonic spatial environment there can be temporal tensions, rhythm, expectations and interpenetrations of the past, present and future.

At best there can exist integrated sequences and main- and subconstructions, which the mover can experience as solid ‘episodes of movement’.
THE TERM 'EPISODE'

What do we mean exactly by the term 'episode' in this context? We have borrowed it from Elliot Jaques, among others, who has suggested that the human being exists in two temporal dimensions: on the chronological axis of time and on the temporal axis of intention.

Chronological time enables us to locate events in relation to time. At the intentional level of time we are goal-directed; for example, we determine a course of action or set out to achieve something. Simultaneously our present thoughts are intersecting with memories or images of similar earlier situations, and with forthcoming expectations.

It is in this connection Jaques uses the term 'episode'. He uses it to refer to the interval between setting a goal and its achievement. According to him all human life can be seen as consisting of time episodes. Each individual is simultaneously bound to several episodes, some shorter, some longer, varying from one hour to many months. The longer episodes overlap each other and also the shorter ones. Thus several episodes advance in parallel at a

**Figure 5**
Episode is constructed on the temporal axis of intension, and it refers to the interval between setting a goal and its achievement.

**Figure 6**
All human life can be seen as consisting of time episodes (Jaques 1982).
specific moment. Jaques goes on to state that “it is important that we have strong contact with our intuitive feeling of episodic movement, because without it we lose the meaning of our emotions and contact with our intensions, wishes and desires, which make these human episodes human”.

The term episode is also employed in the social psychological theory of R. Harré and P.F. Secord, and in the theory of Joseph P. Forgas. Furthermore, it has been used in ecological psychology by Roger Barker since the 1950’s. Barker refers to behavioral episodes with corresponding behavioral settings.

Thus, we speculated, if the episode is a central concept in describing our psychological and social life, why could it not also be successfully adopted to the analysis of movement from place to place. In other words, whether one is tuning oneself into a musical composition, taking part in some event or moving from place to place, one is most likely mentally constructing in advance what is to come – more or less consciously. And in the case of physical movement it is of advantage if there is some awaited presence in the environment of movement; if there is something which extends the movement forward or divides it into periods.

It is also in this way that an architect can support the inner process of the mover. At best the successiveness of spaces can be an interesting, ‘dramatic’ event full of anticipation; allowing the mover to recall the spaces he has encountered so he can reconstruct the image of the whole episode of movement in his mind. A successful environment thus affords many opportunities to construct these kinds of episodes of movement. It is in such surroundings that people are most likely to become more aware of this aspect of their built environment and thus more eager to experience the serial visions.

THE DEMANDS FOR ENVIRONMENTAL PLANNING

After adopting the concept of episode we began to think about architecture and environmental planning in a dif-
ifferent way. One of the ideas most central to our thinking was that the basic unit of planning the environment for moving cannot simply be a separate space as such. Instead the architect has to project himself into the episode of movement as a whole and to the psychological experience of it. He has to recognize the episode in holistic terms with its beginning, internal tensions, temporal rhythms and its end. As a basic unit the episode of movement should be seen as a single dynamic entity. Spaces should not be planned separately space by space but rather through the interpenetration of them.

Finally, I would like to give two concrete examples of existing episodes of movement. One of these, a Finnish example, is the Esplanade in Helsinki which forms a link between two important centres: the Swedish Theatre and the Market Square. These centres are not so far apart, a short stroll in fact, and more spatial interest is added by the various elements situated along the pedestrian route: the fountain, the rows of trees, the statues, the restaurant building and the richly decorated neoclassical facades of the adjacent buildings. There is much to enjoy during motion in the boulevard itself. In addition the Market Square area near the waterside, a busy centre in itself, provides powerful motivation to the walker.

The other example is Puutarhakatu in Tampere. It is a street with all the potential to become a good episodical structure. Unfortunately, however, it has not been utilized as an east – west directional pedestrian street.

It would be out of the question to change Hämeenkatu, the main street into pedestrian precinct but Puutarhakatu could well serve as the next potential route. It has two market squares at either end and it passes the Art Museum, the Swimming Hall, the City Library and the Town Office Building. Further along it extends through the Central Square and the old factory area; then it crosses the waterfall, continues through an alley which at present serves only as a parking place, and ends in the most bustling market square of the town.

Why are such spatial potentialities as these not realized? Firstly, because the car still dictates our ideas on
Figure 8
Esplanade in Helsinki, Finland.

64
urban planning, and many shopkeepers also are afraid of that restrictions on traffic will mean a loss of customers.

Secondly, we are not yet ready nor trained to see our environment in terms of motion: as serial visions or as a succession of spaces. We are not yet able to appreciate the experience of motion as one important dimension which could have a positive impact on our urban life. In short, we cannot yet distinguish, analyze and strengthen the episodes of movement which potentially already exist in our environment.

Even though the creation of new pedestrian precincts is gradually increasing in Finland, their planners are too often satisfied with only restricting vehicular traffic between a couple of cross. However, it would be a mistake to think that when a street is pedestrianised in this way that it would automatically promote freedom of motion. In fact, such changes only serve to remove the drawbacks of traffic without necessarily introducing other improvements in terms of motion.

Such planning does little to promote to the psychic processes of pedestrians. It lacks sensitivity for the creation of tensions, interpenetrating and temporal rhythm into the streetspace, for example, by adding elements that limit or detract from the streetscape.

In brief, we too seldom consider the continuous networks of pedestrian routes and sequences of spaces as interesting spatial events.

REFERENCES