The Acceptance Process in Road Planning

Two Swedish Case Studies

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Abstract

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This paper presents a case study of the dialogue between the road department and the general public during the early stages of two Swedish road projects. The two road projects were located in Skåne in southern Sweden. Both concerned bypasses past villages and passed valuable recreational areas as well as environmentally sensitive areas. The study focused on the public's reaction to landscape information. The basis for the discussion comprises two articles: Article 1, concerning letters sent to the road department, is in press, while Article 2, analyzing the official documents of the two projects, is currently under review.

The road projects studied were very similar at the outset, but the dialogue between the involved parties took different turns in the two projects. One project ran into difficulties, whereas the other managed to build acceptance established early on, which proved to be beneficial for all involved.

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"The core of landscape planning is to, with synthesis as a method, promote quality of life and environment by planning, design, and management of towns, green structures and development of the aerial industry's landscapes" (Bucht, 2003)

Background

Time is money. Road planning requires a great deal of time. The Swedish Road Administration (SRA) and the Railroad Administration (Banverket) wanted to investigate how the planning process could be simplified in order to save time. Therefore, they financed a research program carried out by the Royal Swedish Academy of Engineering Sciences (Kungliga Ingenjörsvetenskaps akademin, IVA), who initiated this study. Of the eight case studies in the program, The Department of Landscape Planning Alnarp was contracted to conduct one, which is presented here.

I approached the issue somewhat differently than simply trying to find a way to simplify the process. Previous research among colleagues at the department and elsewhere had shown the importance of involving the public
 opinion and presenting all analysis and evaluations transparently. Examples are: the motorway E6 between Gothenburg and Uddevalla (1985), the Öresund bridge project (Hemgård, 1978; Skärbäck, 1981), and Wind power projects (Hammarlund, 1997). This knowledge, together with my interest in laypeople's right to and need for the landscape, caused me to approach the investigation from another angle. Because lack of favorable reception by the public seems to have a severe impact on the planning process, I set out to explore the acceptance process. The phenomenon of acceptance has been explained in many ways. In this thesis, acceptance is understood as the act of receiving or admitting as adequate or satisfactory, or believing in, the planning project at hand. The acceptance process constitutes the time spent and effort made by all parties to achieve acceptance.

My preliminary assumption was that acceptance by the general public would facilitate the planning process – perhaps not simplify the process, but definitely minimize the risk for delays. In the end, minimizing the risk of cumbersome setbacks would result in the shortest time from the start of the planning process to the end: the permit. My research questions were:

1. Why do some infrastructure projects progress easily through the process while others do not?
2. Could acceptance be a crucial point? Could acceptance of the planning process at hand explain the differences between projects and, if so, how can acceptance be improved?
3. Could planning be made more efficient by active inclusion of additional public participation?

Aim of the Study

The objective of this study has been to gain knowledge of people's acceptance process of changes in the landscape. The aim has been twofold. First, the financing parties IVA and SRA had asked for ways to simplify and save time during the road planning process. The aim was, thus, to find possible simplifications and time saving operations. Second, I wanted to put the human perspective in focus in the planning process. Whatever we do as landscape planners, it seem to me that the local population is the actual client; therefore the public should be satisfied first of all – landscape projects should preferably achieve acceptance among all involved parties.

The objectives seek to examine the importance of open communication and about the need for incorporating public opinions early in landscape projects. My goal was to enter into the borderland between the research fields of landscape planning and communication. By studying this connection and approaching the problem from a human perspective, I was hoping to find clues to a better planning process.

Human Issues in Landscape Planning

Our society has always needed improvement of infrastructure and will always do so. Yet infrastructure systems as well as large local developments – for example, mining, gravel pits, deposits, and industrial sites – make scars in the natural landscape. It is well known by both professionals and laymen that large encroachments in the landscape affect both the environment and the people dependent on the lay of the land. In many cases, environmental impacts are felt to be so severe that projects are at risk of being stopped by laymen who feel adversely affected and misunderstood (SOU 1999:75, ; Vägverket i Göteborgs och Bohuslän and VBB VIAK i Malmö, 1991). Moreover, people today are more aware of human dependence on the physical environment and the benefits derived from it. Björn Sundmark (2004), professor of English literature, wrote in a recent newspaper article:

> "Slöseri med naturresurser och ekonomisk utsugning är ett gemensamt problem av politisk, social och ekologisk karaktär. Och förslavandet av människor och djur har många likheter. … För mig handlar ekokritiken inte främst om att plötsligt bli litterärt miljömedveten, utan i än högre grad om att få syn på människan".

> "Wasting natural resources and economic exploitation is a common problem of a political, social and ecological character. And enslaving people and animals has numerous similarities. …. To me ecocritique is not mainly an issue of suddenly becoming ecologically aware, but of our noticing to a much higher degree the human being" (translated by author).

As a landscape architect, I argue that there are no higher goals than putting the wellbeing of humanity in focus. That is why I chose to take a closer look at the human aspect of infrastructure planning.

Public Participation and the Dialogue

There are many arguments for public participation in planning. Citizen participation is simply required by Swedish legislation (1998), which is a good enough reason in itself for SRA to ensure such participation. Four additional rationales for public participation are stated by Kahn (2003, p.575); "(1) to increase the democracy of decision making; (2) to contribute to better decisions by allowing for more perspectives; (3) to improve the acceptance and legitimacy of decisions; and (4) to develop the personal skills of those who participate".

On the negative side of involving laypeople is that the flood of protest letters, albeit legitimate, sent to the road department by the public causes, from the road department's point of view, a great deal of work. All letters must be followed up and be responded to. Public participation can also cause time-consuming delays when decision makers are made to conduct further investigations or even when there is an appeal, which in Sweden is a very time-consuming procedure (Olander, 2003b). That is a problem which needs solving and that leads to additional questions. Could paving the way toward public acceptance be part of the solution? Could questions raised by the public give important clues to what the local issues are? Is it not more difficult for a project manager, who should be the master of the comprehensive project, to possess local knowledge of every detail than for the individual who has walked on the site for long periods of his/her life? Could coordination of these two knowledge sources be the answer?

Of primary concern in this thesis has been the dialogue, in written as well as in visual form, surrounding environmental issues between government officials, the communities, officers at the road department and the general public in large scale planning. The communication issue is complicated, as laypeople and experts have different comprehension of environmental risks and explain the perceived risks in an array of ways. Moreover, the understandings of and viewpoints on the landscape vary across individuals (Soneryd, 2002). Soneryd establishes people's intense relationship and attachment to the landscape and discusses the problem:

> "If people relate differently to their environments it is not because they are interpreting the same sensory experience through different cultural models and symbolic patterns, but because their bodies and senses have been trained to attune differently to the environment".

The merit of her statement speaks for a well-developed dialogue with all people involved. My thesis will show and discuss the effects of the dialogue as well as the way in which it was conducted in the two studied road projects.

Road Planning in Sweden

The Swedish Road Department uses a table (Article 1, Figure 1) to explain the different stages of the road planning process. The study encompasses the two planning phases: the Prefeasibility and the Feasibility Phases. According to Swedish law, the Road Department must hold public meetings and exhibitions during these phases to facilitate participation in the planning process for the general public (VVFS, 2001). After the end of an exhibition, sufficient time must pass to give people the opportunity to take in the material and to write

submissions. The law also requires the Road Department to respond to these submissions and all arguments in written form (Vägverket, 1995; 2001).

Swedish authorities stress the importance of local support for the purpose of sustainable development. Local support may be described as increased understanding and acceptance by landowners, residents and various interest groups (Naturvårdsverket, 2003). Following The National Environmental Protection Agency's policy by facilitating increased understanding among laypeople, public participation is thus also given a pedagogic value.

Environmental Impact Reports

The National Environmental Protection Agency (Naturvårdsverket, 2004) explains the necessity of producing Environmental Impact Reports (EIR) and the material that should be included in such reports. It also describes the aim of an EIR, how to achieve that aim, and how and when to start:

> "Vid tillståndsbeslut och andra beslut som har betydelse för skyddet av människors hälsa och miljön och hushållningen med mark, vatten och andra resurser är det viktigt att förutsättningarna för miljön beaktas. Besluten skall därför grundas på en beskrivning och analys av beslutens konsekvenser för dessa intressen. Detta uppnås genom miljökonsekvensbeskrivningar.

> Syftet med en miljökonsekvensbeskrivning är att ge ett bättre beslutsunderlag. Beskrivningen skall möjliggöra en samlad bedömning av en planerad verksamhets inverkan på miljön, hälsan och resurshushållningen. För att uppnå detta syfte måste frågor om påverkan på miljön komma in på ett tidigt stadium och ingå i beslutsunderlaget under hela processen fram till ett tillståndsbeslut. Allmänheten ges möjlighet att delta i processen".

> "When giving permission to build and in other decisions that affect the protection of people's health, the environment, and sustainable development including land, water and other recourses, it is important to consider environmental constraints. The decisions must therefore be based on a description and analysis of the consequences for these same interest areas. This is achieved through Environmental Impact Reports.

> The aim of the Environmental Impact Report is to provide a better basis for decision-making. The description shall enable a cohesive evaluation of all the effects of a planned enterprise on the environment, on health aspects, and on sustainability. To reach this goal, questions concerning environmental impact must be addressed in early stages and be part of decision-making during the entire process and throughout authorization. Public participation during the process is to be facilitated." (translated by author)

The EIR forces developers, planners, and decision-makers to consider all aspects of the project, and because the EIR is exposed to expert examination as well as to

the public's scrutinizing opinions, it does provide for better places for people and other biotic communities (Roberts, 1991).

The Two Studies

In this thesis, I discuss my investigation and findings concerning the dialogue in the early stages of two road projects in southern Sweden. Most interesting is how dialogue either leads or does not lead to acceptance among the general public.

Two different studies were completed using empirical data (Appendices 1 and 2). The first was based on material submitted to the road department. The other was based on the printed information distributed by the road department. Both studies explore the acceptance process through the communication of landscape issues in the planning process. The two studies further seek to establish connections between the landscape field and the field of communication.

Materials and Methods

Two road projects, Väg 17 and E22, were chosen by SRA for their similarities concerning planning issues. Their surrounding environments had very similar problems to confront, such as environmental sensitivity and recreational values(see Article 1). Both road projects were underway when the research started. The studies that I present here were based on data developed throughout the duration of the road projects, including the letter exchange between SRA, official authorities and the public and printed documents supplied by the road department during the prefeasibility and feasibility phases of the two projects. The data consisted of all the 324 letters exchanged between the road department and the laypeople and contained 3729 arguments. All the produced printed documents available to the public including the EIRs were analyzed in Part 2 of the study.

Material and Data Collection

The main data sources studied were the letters and the documents concerning the two road projects. Altogether, 335 letters were collected by the involved authorities. The letters represented all in- and out-going communication concerning the two projects registered at the road department during the prefeasibility and the feasibility phases. The letters constituted all the incoming submissions registered. Väg 17 received 36 letters from the general public and 30 from official authorities. For E22, the figures were 235 and 34, respectively. The documents consisted of the prefeasibility study, the feasibility study and the EIR of both projects. Data were collected during the period April 2001- June 2002. Data collection occurred over time, as the research project and the road projects were partly running parallel to one another.

A combination of qualitative and quantitative methods were used for data collection as well as for analysis and interpretation of information (Holme and Solvang, 1997).

At the same time, holding and participating in meetings, informal interviews with people in the street, and semi-structured telephone interviews were used to supplement the data from the letters and the documents.

The meetings with professionals took place at the road department and at the department of landscape planning, SLU, Alnarp. Meetings at which the two project managers, my supervisor and I were present were held at the road department. A reference group of professional people held regular seminars at Alnarp during the study period. This group consisted mainly of people from SRA, but also researchers in related fields such as landscape planning, sociology and behavioral sciences. Seminars have also been held with research colleagues and peers at Alnarp, during which the study was discussed.

Official meetings pertaining to the planning process were announced in local papers and took place at libraries and schools in the local communities. The road department carried out official documentation of these meetings. I did attend some meetings, though all could not be included because the road projects had already started when I became involved. In connection with these meetings, informal interviews were conducted with laypeople. I recorded my observations in field notes.

Private meetings were also arranged and documented in field notes. One such meeting was in the "Intressegruppen". "Intressegruppen" was a selected group of people interested in the E22 project. The group was awarded special treatment, being invited to specially arranged meetings and thus receiving extra information (see Appendix 1, page 6). Another meeting was with their counterparts, one of the many groups of laypeople that formed following the formation of "Intressegruppen".

An early question was raised: were the submitters representative of all the public effected by the road? A consultant, a landscape architect working in the field, was contracted to answer the question. A group of 40 citizens were selected for telephone interviews. The purpose was to check to what extent the attitudes documented in the letters were reflected in the population. The questions and an interview form were constructed in collaboration with the consultant. Example of question topics were: to what extent people had taken part in the public meetings, whether they were satisfied with the information received regarding the exhibition and the reports, whether information could have been easier to understand. Respondents were selected from project E22 only, as this is where the obscurity was found. One-third were picked at random from "Intressegruppen", 1/3 from people outside Intressegruppen, but who had sent letters to the road department, and the last 1/3 from people who had not submitted any letters.

Compilation and Analysis

When the letters were compiled, a procedure was used that is quite reminiscent of that used for text analysis (Säfström and Östman, 1999). In text analysis, material is sorted and grouped according to themes and thereafter entered into a matrix for additional quantitative calculations and analysis. In my analysis all

letters were broken down into their smallest parts and entered into Excel under suitable headings. The procedure is described in detail in Appendix 1, page 3. During the procedure needs arose for new headings or regrouping, which was done continuously. The data were grouped and counted. These groups were named "Argument groups". The argument groups were easily combined to form larger groups based on kinship or "Aspects". Aspects in turn were combined to form "Main Topics".

The documents were analyzed independently of one another. The transparency of the analysis from basic data to evaluations was examined.   A page-by-page examination focused on the variation of the five levels of the different stages in the planning process. The procedure is described in Appendix 2, page 5. The result was entered into a matrix containing the same five levels. Lastly, diagrams from each of the documents were produced for comparison.

Field notes were made during or after meetings and informal interviews with people, depending on the appropriateness in the situation. When speaking person-to-person, field notes were always made after the conversation. The notes have been used mainly to elucidate arguments and to support drawn conclusions.

In the first study, described in Appendix 1, handling the incoming mail by immediate coding of senders helped me avoid biases concerning the individuals involved. In this study, to minimize subjectivity, any possible argument found in the letters was entered into all possible slots in the Excel datasheet. All arguments for and against a road location found in the correspondences concerning the two projects were compared. Opinions in the letters were noted and categorized as objectively as possible. The basic data were then entered into a matrix that developed and frequently changed in accordance with the needs of the analysis. Relating public reactions to project variations was expected to render some conclusions regarding differences in the handling of the acceptance process of the two road projects.

In Study 2 (Appendix 2, page 5 and Figures 4-8), a new graphic method was developed. All official documents and reports (Prefeasibility, Feasibility and EIR) were analyzed as to how well they correspond to the requirements spelled out by the SRA (VVFS, 2001) to facilitate participation in the process by the general public. By analyzing page-by-page, it became possible to graphically show the transparency of evaluations step-by-step.

Research Approach

The research project as a whole takes a qualitative approach, which has also influenced the methodology. A common denominator for qualitative research is that it emphasizes the understandings, meanings and motives tied to people's actions (Lieberg, 1992). Qualitative research methods differ from quantitative efforts by generating discoveries and theories from a few, but well-penetrated "cases" by means of participant observation, interviews and analysis of documents and other written sources (Holme and Solvang, 1997). Quantitative methods are based on statistically representative data collections that do not

penetrate as deeply into each case. According to Starrin et al. (1991), the two approaches may very well be combined, as was done in this study.

I decided to open-mindedly and without any preconceived opinions look closely at the letters to see what would emerge from them. The subsequent approach, which I developed, was inspired by the Grounded Theory developed by Glaser and Strauss (Bailey, 1994). Wallén (1996) describes this way of working as allowing the observations to continuously shape new ways of categorizing. I began by systematically analyzing the letters, allowing the empirical material to shape the research. In this sense, I used an inductive and hypothesis-generating approach (Alvesson and Sköldberg, 1994; Holme and Solvang, 1997). I looked for connections that could form theories to answer the posed questions, and I regrouped the data as necessary throughout the entire collection period. I see my study as a quantitative analysis of qualitative material, as I did quantify the basic data found in the letters. This became Study 1. In Study 2, attempts to find transparency in the official documents were also made by quantifying qualitative data. The results from the two projects were later compared and are discussed below.

Summary of the Empirical Studies

In the Article 1, people's viewpoints and the way they were met are discussed. In Article 2, the presentation of information distributed by the road department in printed form was analyzed and results arrived at. The discussion puts the results into context.

Summary of Appendix 1

To find ways to shorten the time spent on the road planning process, two Swedish road projects were studied. By studying the submissions to the road department during the prefeasibility phase through the feasibility and EIR phases, conclusions could be drawn. I examined all 335 letters containing a total of 3729 arguments, all of which were sorted and processed. The two projects developed very differently. One went rather smoothly, while an escalating "flood" of protest letters hit the other. Many of the letters contained remarks on the dialogue and/or the analysis.

It was concluded that achieving acceptance requires stimulating a two-way dialogue in which people put forward their concerns and ask questions and in which SRA officers give clear and adequate answers. Another conclusion was that a great deal of critique at the beginning of a project reduces the amount of complaints during later stages, when handled through open two-way communication. Thirdly, environment and landscape were issues in ¾ of all the arguments in the letters, while economy, traffic and transportation together only amounted to ¼. This shows the importance of having expertise in the fields of landscape planning and environment. Moreover, social issues are important in project management. Inclusion of an environmental psychologist with the ability to meet people at their level of comprehension should be considered.

Summary of Appendix 2

To explain why the numbers of public opinions expressed through the submissions developed very differently, the Prefeasibility Study, Feasibility Study and EIR reports (Vägverket Skåne, 2003a; b) were analyzed. I analyzed how the information presented changed across the five phases of project investigation, from background and inventory of basic data, replenishing with deeper information, consequence analysis and conflict analysis to evaluation of priorities. According to Skärbäck (1981), the five phases should be characterized by an increasing degree of evaluation, from the starting point presenting basic data through appraisals to the end point presenting the conclusions. This gives transparency from basic data to the stage of answering the planning questions. Registering the level of evaluation for each page of each report and plotting the results into diagrams showed the interplay between the five evaluation levels.

Richer descriptions of estimates and appraisals already in the Prefeasibility Report most likely paved the way for the more effective dialogue associated with one of the roads. Better interplay between established facts and evaluations in the EIR and the Feasibility reports may explain the more solid acceptance for that project. The other project avoided evaluations of priorities, which may explain the many negative submissions. People did not find any conclusions in the document, so they submitted their own. Because people did not feel their legitimate environmental opinions had been heard, their feelings for the project developed into affects that were difficult to handle.

People's justifiable feelings about their landscapes must be accommodated. The results show that transparency concerning how conclusions have been derived, from basic facts through analysis and synthesis to final conclusions and priorities, is important to preventing unnecessary oppositions to environmental aspects.

Discussion

Approaching the Public

Planning and management have as much to do with our modes of thinking and acting as they do with the phenomena themselves (McClintock et al., 2003). Whatever line the managers may choose, they need to keep the public involved in the process. Keeping the public involved and project placement in the landscape are the two most important steps in acceptance of the project, writes Schwahn (2002) with reference to wind power. There is no reason to believe that wind power is different from other large-scale projects, which is why the same reasoning should also hold true for road planning projects. Two basic approaches to placement in the landscape and to public participation can be identified, the Rationalistic and Incremental planning approaches (Skärbäck, 1981).

Rationalistic Approach

The rationalistic way of thinking can be traced back to the philosopher Plato and later philosophers Spinoza and Leibniz, who were of the opinion that if only a small number of self-evident maxims were identified, we would be able to identify all real knowledge based on these maxims (Nationalencyklopedin, 2004).

Such thoughts, applied to planning, presuppose that the planner is able to define the best common goal for society and the best way to achieve it: the best solution. The solution may be far into the future and may entail vast alterations during the attempt to reach the set goal.

Rationalistic planning, by defining the ultimate goal, puts great demands on the acceptance process in that everyone must agree on the same target. Large but necessary changes in infrastructure require large amounts of planning and, according to Skärbäck (1981), may be difficult to carry out in such a strict rationalistic way. Skärbäck also asked and explained why rationalistic planning ended after the 1960s. During the 1970s, environmental consciousness exploded, leading to lack of acceptance of many projects.

Might rationalistic planning have disappeared because rationalistic planners were simply unaware of the importance of developing acceptance, or were they unaware of the importance of environmental concerns? Righter (2002, p.30) discusses the very same issue.

> "But what can landscape architects, engineers, developers, and even historians do to increase public acceptance? All of us must educate the public about the environmental benefits of wind energy. Beyond that, we at Bellagio believe that the landscape architect must employ his or her seeking compatibility between nature and this technology."

Righter's statement suggests that in order to achieve acceptance, project leaders must describe the benefits of the project/development in order to facilitate unification of goals, which is significant for rationalistic planning.

Incremental Approach

In contrast to the common goal approach identified by rationalistic planners, incremental planners assume that different stakeholders have a variety of goals. "Incremental planning is based on the assumption that no "best" alternative exists, that the different interests involved represent different values and pull in different directions to meet their own interests" (Skärbäck, 1981, page 106). Incremental planning presupposes that it is not possible to agree on one single best solution to reach the goal. This is why incremental planning has to be performed in many steps, involving small adjustments at each step. Thus, incremental planning is more focused on the means, the alternatives, than on the goals: e.g., driving as quickly as possible between two points (Skärbäck, 1981).

Several consequences of the instrumental approach are discussed by the National Research Council (1989). People's disagreement about the acceptability of risks may go beyond disagreement about what the consequences are. Individuals may have different risk estimates, disagree about how to evaluate the consequences, have different values, or they may simply disagree about what consequences and options should be considered.

These are typical considerations to be aware of in planning, because without establishing common goals, you cannot expect people to make the same evaluations and come to the same conclusion.

Approach in Väg 17 and in E22

In this study, both E22 and Väg 17 can be said to have started out using the theories of rationalistic planning. However as time went by, E22 switched to an approach of increasingly incremental planning.

Already from the beginning of the project the manager of E22 had to meet a number of goals from the public and even more equally strong alternative goals emerged during the process. The goal of building a bypass was further distanced by an unattainable desire to satisfy all stakeholders. Because the manager also wanted to achieve satisfaction among the different stakeholder groups, the ensuing discussion came to concern the means, the road alternatives, rather than the goal, to free the towns of throughway traffic. Thus, the E22 project changed character to a more incremental process.

The manager for Väg 17 was able to formulate a successful alternative, the ultimate best goal for society thus also for a majority of stakeholders. He managed to keep the focus on how to reach the goal, by utilizing the early opportunity of explaining the objective of the project and inviting public participation. In this way he succeeded in keeping his planning process rather rationalistic. The public was led to feel they were part of the project from the very beginning. That course of action served two purposes for the manager himself. First, it made him aware of whom the interested parties were and, second, he was informed as to what and where the local issues were to be found.

The Acceptance Process

The phenomenon of acceptance is not easily explained. Even when turning to basic psychological theory formation, there is no established scientific or theoretical concept (Kåver, 2005). However Kåver (page 29) does give an explanation:

> "Med acceptans menas att välja att se, ha och stå ut med både den inre och den yttre verkligheten utan att fly, undvika, förvränga eller döma den och att handla utifrån denna verklighet effektivt och i riktning mot sina värderingar och mål."

> Acceptance means choosing to see, have, and withstand both the inner and the outer reality without fleeing, avoiding, distorting or judging it and acting according to this reality effectively and in the direction of one's values and goals (translation by author).

Kåve takes her standpoint from therapeutic psychology involving one individual. Also in landscape planning it is helpful to understand how acceptance works for an individual, because the large groups of people involved in planning projects consist of individuals. Also in this study it was discovered that early communication with the individual prevented formation of opposing groups later in the project. In this thesis, acceptance by the individuals should be understood as receiving or admitting as adequate or satisfactory, or believing in, the planning project at hand. Thus acceptance is understood as fulfillment of the expectations of the people involved.

The acceptance process includes everything necessary to achieve acceptance. It involves the time spent and effort made by all parties. For acceptance to be achieved in landscape planning, a substantial majority of the people involved should understand the planning process and recognize its legitimacy.

Understanding Landscape Projects

The landscape is complex. It consists of many parts, which together form an entirety. This gives the planner many opportunities, constraints and sensitivities to consider (Roberts, 1991). A full understanding of the topic at hand is essential for everyone who wishes to take part in the discussion, and this also applies to infrastructure projects in the landscape (Dayton, 2002). Landscape planning and design are always reconstruction projects, as there is always an existing landscape to consider. In my view, there are always issues to be found even before the project start. Every change affects something and someone. In order to gain acceptance for landscape projects, it is necessary to identify the people affected and to find out about their wishes and concerns.

Problems caused by people who are negative to the project are not desirable. People who start out being negative can do things to cause an ineffective process (Olander, 2003b). This is not to say that negative feelings cannot change. However, negative feeling may be less likely to arise if we follow Schwahn's (2002) advice and deal with acceptance early and if we listen to Appelstrand (2002), who states that for acceptance to take place, the ongoing project must be perceived as democratic and legitimate.

In order to achieve acceptance, it is not enough to merely follow the law by making documentation available to the public and by holding public meetings, in Sweden called "Samråd". The work done and the communication of it must show quality of workmanship. An important aspect is to educate the public (National Research Council, 1989). "Landscape architects must employ their skills in seeking compatibility between nature and technology, the engineer must create designs which are reliable" (Righter, 2002, p 30). This statement is no doubt true, but landscape architects and planners also need to be pedagogic in their communication if they are to convey a professional understanding of the landscape issues at hand. All involved must comprehend; otherwise people will easily feel threatened in their attachment to their landscapes.

Important for acceptance is not only what we as professionals see as beneficial for society, but also the human aspect: There are personal desires that require spaces and places. In relation to personal desires, the landscape may be experienced as both physical and mental, and as something that crosses over the border between nature and culture (Saltzman, 2001). This holds true also for spaces and places for individual needs. These spaces and places have been explored by environmental psychologists (1991; Grahn and Stigsdotter, 2003). Grahn has clearly shown the connection between the environment and people's well being. Both individuals and groups will in one way or another often be adversely affected by new placement of, for example, a road. Typically, the people who profit from a large scale project are not the same as those who suffer (Schwahn, 2002). That is, people gaining values are more often those who travel

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on the road, while people living close to a new road will not necessarily be using the new construction, but might instead have to give up values such as peace and quiet, easy access to their full property and so on.

As Saltzman (2001) points out, two people looking at the same physical landscape seldom perceive the same thing. She argues that the landscape exists both as a physical object and in people's minds. The relationship between the two representations must be taken into account. At the same time, Soneryd (2002) points to people's intense relationship and attachment to the landscape. Given these two arguments, landscapes must be viewed as not only complex, but also understood in a variety of ways that serves as an overlapping nexus of usage and values. That nexus is important.

In major projects, there are bound to be differences of opinion. We would be mistaken if we started out believing we could satisfy every stakeholder or, as Palm and Windahl (1989) write in one of their headings, "Lyckad kommunikation är inte lika med lyckad övertalning" or "Successful communication is not the same as successful persuasion" (translated by author). However hard we try, we can never satisfy everyone, as people sometimes have opposing opinions. Success in communication should be considered achieved when we have succeeded in raising the level of understanding of those involved for relevant issues or actions, when we have adequately informed people within the limits of available knowledge and when the stakeholders are satisfied with our communication (National Research Council, 1989). This study confirms the necessity of early understandable and adequate two-way communication characterized by a give-and-take approach. In project Väg 17, the planning process was facilitated by the project manager's openness to two-way information already at the beginning phases of the prefeasibility stage. The E22 managers did not grasp the same opportunity, which proved to be hard to repair later on.

Understanding the Planning Process

The planning process is a professional instrument regulated by law. Not many laypeople are familiar with it (Henecke and Olander, 2003). A person who understands what is going on is more likely to feel at ease in a situation than one who does not. It is, therefore, essential to familiarize the nonprofessional person both with the total planning process and with where the process is at any given point in time. Article 1 shows the benefit the officer at Väg 17 gained by clarifying the process. This clarification made people feel they knew what was going on and what was to happen next; they felt at ease in the process.

Both road projects have a problem associated with the meaning and interpretation of the words used in the process. In Sweden, the words for the phase itself and the word for the document produced during the period are the same. For people at the road department this may be beneficial, but it is confusing for laypeople when the same expressions are used in two different senses.

Significance of Time

Acceptance of changes in the landscape requires time. The most effective way to minimize landscape conflicts is to incorporate public views early in the design process (Schwahn, 2002; Skärbäck, 1981). By involving the public early, extensive knowledge of how the landscape is used and valued by the inhabitants will be brought up to the surface, and thus can be included early in the planning process. Such information includes the contemporary cultural history that may not yet have gained official status (Laval, 2002).

The importance of early inclusion has also been observed in the two studied road projects; two advantages have emerged in this regard. First, the project manager of Väg 17, who used the early approach, became informed as to what exists in the project surroundings including what people's concerns are. Second, the people involved were given time to take in facts and to accept possible changes. People's processes of familiarization and proficiency require time.

Public Participation

Public participation is no longer a choice, but is clearly stated in the law (SFS, 1998). Getting approval for the project is one aspect, but there are many other benefits. However, the potential benefits that stakeholders bring to a project through the information, creativity and values brought forward are seldom realized (Enserink and Monnikhof, 2002). Therefore, we should with gratitude pick up on the interest people show and openly continue our discussions and investigations.

In project E22, the managers tried to get everyone's approval by asking them to submit their opinions in writing. However, at the same time people were told that, due to orders from above, there was little or no possibility to include the laymen's points of view into the program. The regulations stated that laypeople's viewpoints had to be considered at the end, after the government, the county administrative board and the communities have had their say. To be heard most efficiently, people would have to get organized, because groups are to be considered before single individuals. The statement made people feel ignored and confused. On the one hand, they were asked to take part and, on the other, they should have little expectation to be heard. Some people left meetings emotionally upset, suggesting that the course of action had already been decided and saying that it is only a chimera that the words of the people are important (notes taken at public meetings).

The manager of Väg 17 was clear. He asked people at the very beginning of the project to provide facts that he could use in his investigation. By being invited to participate, people felt they were part of the project. Based on the information given to them, they knew how the project leader would be handling and using their information. This made them feel at ease with the project, and they did not have to submit opposing opinions, as the people of the E22 project did.

Information on Landscape Issues

Walters Coppola (1997) found that environmentalists largely rely on oral communication skills. She provides evidence showing that professionals in their

communication with laypeople need to change to a give-and-take approach in relation to society, environment, and communication or we will not be able to achieve a successful environmental dialogue.

When distributing facts to the public or to anyone, we should consider why it is important for the receivers to know what we are about to tell them (Palm and Windahl, 1989). If the public receives information unimportant to them, they will not continue to listen. On the other hand, if the public receives information they find interesting, their willingness to take in facts increases. Thus, if the public is asking for facts about the landscape, as they did in 75% of the arguments included in their letters, and we continue to talk about how much faster trucks can get from point A to point B, we will lose our public or at best cause frustration.

This brings us to technical and cultural risk orientation, which is also an issue in communication of environmental aspects (Hamilton, 2003). In this research project, the road department and its officers stressed the importance of the road for safety reasons and for timesaving in the transportation sector. The neighbors employed a more social/cultural orientation by describing the benefits and risks of losing landscape values for the people in the communities. This was particularly evident in project E22.

The Legitimacy of NIMBY

Facts are things that cannot be disputed. When facts are presented in such a way that everyone agrees, they are considered objective. Einstein stated that only mathematical formulas can be characterized as fully objective, but science agrees to objectivity on the basis of measurable criteria (Schwahn, 2002). If the facts include someone's opinion, they are no longer objective but subjective (National Research Council, 1989; Skärbäck, 1981).

Landscape information is never 100% objective in the sense that it cannot be disputed. When collecting information, there is always the issue of what to include and what to omit from the multifaceted landscape. The main difficulty in trying to be objective in such large complex situations as the landscape is that it is easy to lose the perspective of the whole. Also as the planning process goes through the different phases, basic data require evaluations in order to be useful in the political decision-making process (Skärbäck, 1981). Thus, landscape information becomes increasingly dependent on values and choices as the process progresses, with more evaluations and planning issues of greater complexity. Theoretically, this can be expressed as follows:

> "Planning is 'problematic' in that it concerns itself with situations where uncertainty of alternatives prevails and where solutions of the best possible standards are sought." (Larsson, 2004, p. 32).

When discussing subjectivity, NIMBY is a concept well known among people working with large-scale projects. The expression stands for Not In My Backyard (unknown origin). Basically it means: you can do it, but just don't let it affect me. Colleagues in the field have informally suggested that information of NIMBY character is regarded as "waste material"; it is too subjective: "We can't

do anything about this, 'cause no one wants it nearby". However, we oversimplify when we characterize all opposition as self-centered responses (Schwahn, 2002). Taking a closer look, we may find that the project as such is often accepted, only the location of it needs to be discussed. Discussing where to place the project is the reason for the two beginning phases of the planning process (Vägverket Publikation, 2002). NIMBY puts the focus on the variety of positions of the different alternatives and laymen. Understanding the differences between various stakeholders, their positions, and the consequences for the stakeholders is a main issue of the method of "Position Analysis" (Söderbaum, 1993). This makes NIMBY significant, as it focuses on the consequences for the stakeholders.

> "A part of the earth's surface is not only landscape but also Heimat, the homeland of the people who live there. People acquire a mental image of their homeland, one which is hardened against the rapid landscape changes that can be brought on by modern technology. They can, in effect, feel expelled from their homeland without ever physically leaving. Unfortunately, this condition has not often been taken seriously, perhaps because it is subjective" (Schwahn, 2002, p 139).

Schwan's thoughts must be taken into account. Both "Heimat" and NIMBY contain values that require respect. We are asking the stakeholders to listen to us, to take in and understand our professional opinions. As landscape planners, we have to understand and respect people's ties to their places. The logics behind the road planning process have to be handled without devaluating people's feelings. Instead, the planner must stay in the crossfire and express all opinions in an understandable manner. Only by listening to people can we understand and only by acknowledging what is said will we meet the laypeople, thus maximizing the chance of engaging in a constructive dialogue (Fisher et al., 1991).

Often an individual's NIMBY position is hidden behind other more commonly accepted arguments, i.e., ecological arguments. The phenomenon can to be called a biased analysis or "partisk analys" in Swedish. "It is not uncommon, for instance, for one of the interested parties arguing indirectly for a particular alternative by putting forward the advantages which that alternative involves for other parties. A clear overview of all stages of a study facilitates such analysis" (Skärbäck, 1981, page 106). The more transparency the EIR shows from basic data through analysis to conclusions, the more difficult it is to manipulate by hiding NIMBY opinions behind more commonly accepted arguments.

Basic data, evaluated data, and the political question

An EIR should provide all relevant facts concerning the ongoing project. This may seem to be a Utopia, but in fact it is not. The project administrator has most likely taken part in many projects before the current one, so she or he should be well aware of what is needed. The weakness of this approach is that, for every project, the landscape and the people are different, making each project unique. Therefore, as the Environmental Code (SFS, 1998) states, the project leader must take the opportunity to invite not only communities and county administrative boards, but also local residents to take part in the project. As shown in Study 1,

doing so early will not only omit the threat of floods of letters (albeit legitimate) of protests from the public, but early letters also strengthen the project itself. The strength lies in the early disclosure of facts relevant to the local population and the exposure of detailed information about the landscape at hand, information that only local residents have. An example from this study, in relation to project E22, is the many historic remains mentioned in the letters that were not in the files at the Ministry of Culture or at the museums – remains that were unknown to project management until people wrote in anger reminding them of what they had missed. It would of course have been much better for the image of the project if that information had been revealed before documents went into print.

During the prefeasibility stage of the planning process, basic data are collected as objectively as possible. As the process continues, these data need to be evaluated and weighed against other data. This causes the material to become increasingly subjective through the handling and evaluation of the investigator. In the next step, the investigator returns to the original question to find an answer, after which time his/her suggestions are passed on to the politicians. Finally, the politicians make choices between alternatives, making the material normative (Skärbäck, 1981).

After facts have been assembled, the impact a development will have upon the landscape and thus on society and individuals alike as well as on our nature needs to be evaluated. The impact pertains to the present situation and also to future effects (Roberts, 1991), and evaluating it is a difficult task involving a wide range of professional knowledge. Such an evaluation is always subjective, even if objective methods are used, because the choice of parameters and method of investigation is based on value judgments. It is most important to disclose to the public the facts underlying decisions; if this is not done, they will have difficulty understanding and accepting. "The working model serves to show how different evaluation gradually lead to the final results. It facilitates critical analysis by those who are to make a decision on the basis of the material" (Skärbäck, 1981, page 105).

A quick way to check whether this has been done is shown in Study 2, where the graphs show how the investigator uses transparency to display the facts underlying his evaluations and conclusions. As seen in the graphs, the investigators of E22 were less open in displaying these facts than was the investigator of Väg 17. It was most likely for this reason that Väg 17 had an easier time gaining acceptance. This matrix is at the beginning stages of development and surely needs more work. However, a student group has tested it and the evaluation and further refinement are forthcoming.

Acceptance by Whom?

The subject of how to treat stakeholders needs discussing. In large infrastructure projects, groups of stakeholders also tend to be large, as many have interests in or are affected by the process, the forthcoming construction and the resulting new development. It is probably not possible for all involved parties to accept the full outcome of a project (National Research Council, 1989; Palm and Windahl,

1989). But, professionals do their best to obtain an understanding for what they do.

In this study, the officers at the road department are in charge of the project, thus they have the responsibility to make understanding and acceptance as easy as possible for all who feel involved. People, both individuals and groups, living anywhere near the road or using the vicinity of where the road is to be placed will be affected by the project. The community will go through changes due to the project, therefore the county administrative board has to be satisfied. Finally the road users are likely to be affected, adversely while construction is going on and hopefully positively when the project is finished. They too need to be satisfied with the process and with its results. But in every project there may be additional groups of people who claim interests in the project. In this case, Lund University, located some 60 km south of the E22 project, had claimed an area for teaching students in the environmental education programs. These were the main groups in this study, and they are all entitled to have a say in the project, and we as professionals must consider their opinions.

Following Johnsson and Scholes (1999), Olander (2003b) recommends mapping stakeholders and their possible power to influence the projects in order to work out the least costly way to proceed. Olander seeks answers to the following questions: "How interested is each stakeholder group to impress its expectations on the projects decisions? Do they mean to do so? Do they have the power to do so?" (Olander, 2003a, p 6)

In my opinion, by evaluating who the stakeholders are and their power, we are starting along a dangerous path. I feel that such a "mapping" entails excluding democracy and good ethics from the process. Our professional ethics speaks for attributing to all stakeholders the same value. The old lady who has lived in her house since she got married some 50 years ago should be given the same value as a young woman who with heavy fists and power assembled a large group of people around her. Power and money must never be allowed to be our guide. People and environmental resources must be our guide. Facts must be weighted not according to who the messenger is, but according to their implications in the project context.

Pedagogic Presentations

Presenting landscape projects is not easy. When compared to construction of a building, landscape projects are more complex. In large-scale landscape projects, a number of people benefit from the development, while the negative effects are often suffered by a few (Ternryd et al., 1998). Furthermore, it is a prerequisite for the existence of an open democratic process that plans, tables, diagrams and maps can be understood by the public (Wikforss, 1977). Large-scale landscape projects, therefore, require special care in relation to communication.

Observations in the two road projects confirm the need for special care in pedagogic presentation. The documents of Väg 17 were easy to access. They followed a main thread and texts, tables, and maps addressed one topic at a time. This was not typical of E22. In one of the E22 documents, the consultants' work

was added at the end in as many as ten appendices comprising almost half of the document. The same document contains a matrix with seven environmental concerns affecting ten alternatives valued at five different levels and filled with a comment for each result. This amount of information in one table is almost impossible for anyone to take in, and even for those who can it does not give any clue as to how the information was derived. The transparency from basic data through evaluation to each conclusion is lacking. There is clearly a difference between the two projects, and the lesson from them is that presentations must be understandable for the reader.

Communication

"The most important problem for developers is how to overcome the public sense of angst brought about by the rapid changes in the landscape" (Schwahn, 2002). To counteract this angst we need communication, which can be accomplished in many ways. First, we might simply provide information in oral, written or drawn form. Second, we might expect to affect the receiver of our message. We go as far as establishing contact. Third, we might wish to establish a full two-way communication in which we give and take information from each other (Palm and Windahl, 1989).

Walters Coppola (1997) claims most environmentalists try to provide the facts and typically leave it to the public to understand and correctly interpret the evidence. Dayton (2002) sets his criteria for assessing EIRs based on the work of Killingworth and Palmer, who already in 1992 used Habermas' theory of Instrumental Rationality versus Communicative Rationality.

In the present context, instrumental rationality would involve the road department valuing their own as well as their hired expertise's work to the degree that it simply has to convince the citizens of its excellence. This includes all phases of work done as well as decisions made. Dayton (2002, page 362) claims that strict instrumental rationality according to Habermas "values a vigorous exchange of views and aims at achieving a consensual basis for decision making" and "corresponds to a rule-governed, empirical-analytic mediation/manipulation of the external world." (p. 366). Communicative action aims at achieving consensus by vigorous exchange of opinions with all affected by the project. This is not easily accomplished, Dayton explains, but by applying Habermas' four implicit validity claims: comprehensibility, truth, sincerity and appropriateness, it is possible for us to strive toward consensus in communication.

This is in good accord with the theory of rationalistic and incremental planning discussed above. Rationalistic planning, I find, can be compared to instrumental rationality in communication in that a common goal is established. Incremental planning accords well with communicative action in that it involves a vigorous exchange of information and ideas.

Considering the present study, I saw indications of rationalistic planning in project Väg 17. The manager of project Väg 17, not only in his verbal exchanges of information, but also in the printed documents did set a common goal. By making sure the goal became a common goal, he acted according to rationalistic planning. Additionally, by flexing between the five levels of the procedure

model, the manager made sure that everyone involved could follow the reasoning behind the conclusions and priorities made. He can be said to have approached communicative action, full two-way communication.

I also saw indications that the manager of E22 did not succeed in anchoring a single common goal. By putting out and adding a number of alternatives goals, such as satisfying everyone, he was approaching incremental planning. In his communication, the manager omitted the evaluations, only showing the results and not how the results were arrived at and rendering the process nontransparent. Omitting the evaluations gave people a feeling of being excluded from the decision-making process. This made people understand the importance of the department's and their hired expertise's work and evaluations. This way of convincing the citizens of the department's excellence can be said to be in accordance with instrumental communication action, one-way communication.

Plans

The use of plans of various types also plays an important roll. Larson (2001) goes back historically to ancient Greece and Rome. He points to the notion of knowledge as power, only those able to read and write had power, i.e., kings, emperors, feudal lords and the church. The written words were not accessible to the average person, who thus was kept at the low end of the social hierarchy as peasant or slave. Kylin (2004) discusses power in the planning process. She maintains that landscape plans are power instruments, because they clearly indicate who is to be part of the power struggle and whose physical reality is being discussed. However, illustrated plans are made to be understood by anyone, according to Kylin.

In order to address the layman and be of value, plans should contain richly illustrated material. However too much information in any one plan does not work, and information should be divided into several drawings or better still be depicted as axonometric drawings, commonly labeled "Bird's-eye View" (author's comment) for public understanding (Wikforss, 1977).

In the current study, the people affected by project E22 complained of not getting enough information, which to a degree can be interpreted as not getting enough understandable information. In Väg 17, this complaint was not evident.

Talk about what and how

The messages we deliver should focus on the target audiences – their perspectives, technical capacity and concerns (National Research Council, 1989). We need to pay more attention to what people want to hear from us and how they understand and perceive what we say. If we do not, it will be difficult for us to keep the public's interest and to gain acceptance for what we are doing (Antrop, 2001). Anthrop also states that we code rather complex and abstract ideas with words, maps and formulas. This makes our reasoning even harder for the layman to follow and we need to pay special attention to how we express ourselves. Furthermore, the customers' demands must be clarified both as a point of departure for the project at hand and in goal setting (Ternryd et al., 1998).

The success of project Väg 17 confirms the above. The laypeople involved in Väg 17 had an early understanding of the goal and their concerns were answered in an understandable and transparent way so they could follow the line of reasoning all the way to the conclusions.

Inventory, analysis and evaluation

Quality is in the road departments handbook "Miljökonsekvens-beskrivning inom vägsektorn" ("EIR within the road sector", translated by author) (Vägverket Publikation, 2002) defined as:

1) Scientifically correct, deep enough and broad enough description
2) Well-founded analysis made on the basis of professional experience and good praxis
3) Relevant and focused statement of accounts of the most important questions
4) An document easily accessible even for the non-informed layperson
5) A neutral document, i.e. not slanted in its arrangement or with beatifying paraphrases
6) Comparable to other material necessary for decision-making, i.e. simplifying a collected judgment of the resulting impacts of the project

The first three points above mention inventory, analysis and evaluation. The final three points indicate the way the documents should show inventory, analysis and evaluation.

As both studies show, there is a major difference between the two projects in that the E22 project did not reveal easily accessible documentation and public communication. The letters also included claims of slanted and false information, which of course undermines the credibility of the project. Väg 17 fulfilled these points and also had better success in achieving acceptance.

Transparency

Striving for transparency threatens to simplify reality, claims Christoff Bargholtz (2004) in a resent issue of a Swedish union paper for university professors and researchers. He expresses the opinion that transparency will lead to simple copying of administrative necessities.

Yes, there is a danger in some situations that nothing above the absolutely necessary for guaranteeing acceptance by the receiving authority will be put down on paper. However, in landscape planning projects, the legal regulations ensure that through the process of allowing the general public, the commune and the county administrative board to take part there will be little possibility to leave anything out (Dayton, 2002).

In this thesis, both Article 1 and Article 2 have shown that transparency is necessary if large-scale projects are to pass the scrutinizing views of the public, the communities and the government. Project E22 used much less transparency than did Väg 17 and thereby encountered heavier opposition and went into a partial standstill, whereas project Väg 17 was given a full go-ahead by the government.

Methodology

As in all research there are limitations to the validity of conclusions drawn.

The empirical data were collected on two out of many ongoing road projects. It is obvious that including more projects with a wider range of issues would have given a more certain result. On the other hand, this case study has analyzed all letters registered at the road department and all official printed material in the two projects, thus the findings are well grounded and valid for these two projects.

Critique can be raised that incoming letters reflect the opinions of only those who sent submissions. Were people who did write not satisfied with the process? The telephone interviews conducted by the consultant indicate that the non-submitters and submitters had similar feelings about the process.

Some other words of caution are appropriate. There are risks in research. Especially in qualitative research, there is a risk that people will feel recognizable by outsiders, which might affect the outcome of the result. The risk of being recognized is true for all involved and affects the integrity of the various parties. In this study, all letters used and official documents were public material and many documents had already been written when this study started; hence, the integrity issue already existed. Individuals sending letters as well as each separate letter were still coded for security; thus the existing integrity of the involved participants could not be lost. The project leaders, their staff and their consultants posed a greater problem, as they are public officials and cannot be easily concealed.

Furthermore using a partly qualitative method, the researcher needs to be aware of the possibility of influencing the interviewed persons and their actions (Holme and Solvang, 1997), here mainly the project leaders. The results brought forward by the method may also cause the parties to feel vulnerable to disclosure, causing reluctance to reveal needed information or causing them to decline participation in the ongoing and/or future research. In this study, however, this did not appear to be a problem. On the contrary, I was given so much information it was almost overwhelming.

Reflections on the results of my work, present and future

The empirical cases encompass the early stages of two road projects and concern the acceptance process. Conclusions were based on analyses of correspondences. Even though the content of every letter was thoroughly analyzed, the results cannot be generalized beyond these two projects. In the future, more projects should be studied for comparison.

In this study, I have concentrated on the communication of the landscape. Many researchers are studying the connection between people and their landscapes, but the field is still largely unexplored. It would be most interesting to look into this aspect and how it has affected the acceptance process in the two road projects studied here. This approaches the NIMBY effect, which in my opinion also needs looking into. Addressing the people-landscape connection through

interviews would close a gap in the present study, as only few personal interviews were conducted to validate the findings.

Among people's concerns in this project, 75% dealt with issues affected by landscape and the consequences of its changes. This is true for these Swedes, but do all Swedes hold the value of the landscape that high? What result would a similar project in another part of Sweden or in another country give?

One reflection concerning the matrix developed in Study 2 is that its present form is quite raw. As such it can be used as a tool for quick analysis in the office to discover whether the work done shows any transparency. If further tested and developed, the matrix could become a useful tool in the acceptance process.

Finally, the EIR was instituted for the good of the environment and the people. It constitutes a way for society to ensure proper quality in Landscape planning projects and may be understood as quality assurance from society, as compared to ISO 9000. Future research should look into the present functions to see whether they are doing their intended job. Furthermore, the study of the acceptance process has just started here and elsewhere; there are many more approaches to be taken.

Results

This study contributes to various aspects of Landscape Architecture, hopefully helping both practicing and theoretical Landscape architects. For the practitioner, the study helps explain how to save time by conducting early and thorough investigations. It also shows that explicit documentation and submission of all facts affecting everyone involved will help the planning process by facilitating movement along the important path to acceptance. The study also indicates that the EIR documents must show the basis for all evaluations and priorities in a transparent way.

The study of acceptance among the general public in the two Swedish road projects showed different effects depending on how the information was handled by the project managers and their consultants. An early approach inviting public participation through open two-way communication was shown to be beneficial to project outcome. Transparency was the other factor found to be beneficial. By showing the inventory, analysis, evaluation and priorities made, people were able to follow the project in detail and thus felt they were part of the project and were more accepting of the new road development. Thus, by meeting the conditions spelled out by the public and taking advantage of people's opinions and knowledge, the planning process could be made more effective.

It may not be possible to shorten the calendar time spent during the early planning stages of large-scale projects, however time spent actively by road department employees and their consultants may be diminished by adding landscape knowledge and working more transparently.

People's acceptance of a project is a continuous process, thus the Acceptance Process develops through its demand for different pedagogies. The project manager, therefore, must have a broad knowledge base to draw on if she/he is to answer, in a pedagogic way, all questions raised and to handle the complexity of man and his environment. All the various parts of the landscape must be presented and need to be analyzed from a holistic perspective, taking all landscape aspects into account. The project manager must also, if she/he is to meet all stakeholders and the general public, be able to carry out a continuous dialogue. Furthermore, as 75% of public concerns raised were landscape related, a person heading a discussion, if she/he is to provide accurate answers, must have expertise in all the complex fields of man and the environment, and in all landscape issues and interpretations.

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