ATTITUDES AND APPROACHES

Oppositions

The steady drift of the American population to urban regions, coupled with trends toward larger families and an extended life span, are clearly changes of great importance for professionals involved with the highway planning, design and construction process. The physical impact on the landscape has been far from compassionate and promises continued deterioration of what was once a natural landscape.

This section of the project establishes the dichotomy between an increased demand for transportation networks throughout the country, and the need to preserve, conserve and restore a landform that has suffered tremendously from urban and regional growth. It is interesting to note that, contrary to popular belief, that the landscape cannot be "replenished" or "refurbished" within a brief period of time. We are just beginning to experience the full impact of a national highway construction program that not only has leveled earthforms but has given little in return. Great emphasis has been placed on the techniques of highway construction and placement but little, if any, on the aesthetic expression or 'expressive content' of a highway and the landform. The techniques employed are a curious patchwork of approaches, many an outgrowth of special-purpose efforts to meet particular or localized problems and
needs of their time. Many of the design approaches bear the mark of fragmented governmental situations that have prevailed during the time when those specific techniques evolved. Until quite recently, techniques were developed and administered on a regional basis with visual conflict most manifest in the nature of the roadway at the state line.

The concern for the aesthetic component of highway design has been minimal. Isolated examples show what can be done rather than how it is done. The so-called cost of a "designed" solution to the highway corridor has placed a major percentage of the interstate system on the side of a technological response. The evolution of techniques, combined with attitudes that have put immediacy of solution at the forefront have all contributed to a patchwork of interlaced highway networks with little or no concern for the future. A designed approach, that integrates an aesthetic component, can look beyond the present to apply a more dynamic methodology in evaluating and applying design methodologies for the highway corridor. Attention must be shifted to human and cultural issues as they relate to the development and preservation of the American landscape.

The sections presents a view based on the following oppositions: structure versus form; technology versus art, and looking versus seeing.
Structure versus Form

Despite the technological accomplishments of the United States, a mature approach to problems of physical planning and outdoor esthetics as they relate to large and small land areas has not been assumed. The number of different professions and interests involved in the highway planning process often appear to be working at cross purposes and the breakdown in communication is reflected by the breakdown between the highway strip and the landform on which it is placed. It is this breakdown that has tended to place an emphasis on the structure of the highway and not on the development of the highway form.

Structure

While many regard the highway as only one of many elements in the landscape, it has tended to be seen as the singular element of functional expression. Though its primary function may be to provide efficient circulation between land units, it also interrupts connectivity between immediate land units with limited-access routes. The character of the route is determined by standards controlling alignment, grade, sight distance, median widths and other geometric design factors which must be observed to make the highway safe for travel. The emphasis...
placed on velocity of travel has shifted the focus away from the landform and the aesthetic of place to that of the physical *structure* of the highway strip.

In this sense, the *structure* of the highway strip has become a tool, a tool to shape the landform, a tool to modify patterns of land use and standards of living. The tool by which vast expanses of land are modified to accommodate a single element with a singular purpose - transportation. The role of man as a user of tools has been well documented historically but to understand how the highway strip has become another tool requires an understanding of the relationship between the tool and the object that it produces.

Commensurate with the expansion of the national highway system has been a movement in American schools toward thing, tool and object-mindedness, so distrustful of symbol that the fundamental instruments of thought have almost disappeared from the curriculum. There has been a movement toward the concrete, the real and all experience should be based on the "real" situation. The need for understanding of the real has led to greater and greater need for the answer or solution to the problem and less need to understand the whole experience. The emergence of a technologically dependent society centered around the role of scientific "truth" is a natural extension of this technological acceleration. The dependency on the machine for its consistency and constancy has produced a nation of technicians.
While the role of the technician, or the specialist, has been glorified, the generalist has lost considerable ground to the new ideology. The development of specialities within any one discipline has produced an abundance of specialists so limited by their respective interests that a major breakdown in communication has occurred. The last 50 years has shown a quadrupling of specialty degrees within the educational arena. It may be argued that in a society that values technological processes and the mastery of the physical conditions of living, the need for greater understanding of that physical world has produced a society of "specialists". There has been serious erosion of man's adaptability in almost every climate and environmental condition due to the technological dependency.

The lack of integration between the highway strip and the landform is one of many examples of the breakdown that has occurred. All the technological achievements have produced a highway strip that is regarded as one of the most advanced movement systems in the world. The tool, in the hands of the specialist, has shaped an object (landform) to such a degree that little of its aesthetic value remains. Historically, the original contribution of technology was not dedicated to man's physical life, but gave him a certain respect for the nature of materials and processes with which he worked. As the machine interceded, the shift away from the natural processes emerged. The aesthetic component of the highway corridor was replaced by a machine aesthetic in which the form of the object was dictated solely by the tool.
Form

The habit of a society dominated by mechanization, a society submissive to routine and drill suggests that man has thrown his "whole subjective and qualitative life overboard" states Lewis Mumford in Art and Technics. The need for personalization, for an identity beyond that of the number is at the heart of the problem. The shaping of the environment, its inherent form, was originally in balance with the development of the machine. However, as man has become mechanized, they have transformed themselves into mechanical, replaceable and uniform parts. They teach themselves to perform standardized and repeatable acts. By breaking down the once unified process of work into "specialized" parts, the integrity of the form has been jeopardized. The disintegration of form, from a physical and intellectual perspective has had a reciprocal association with a specialized society.

The earlier "high way" that etched its way across the tops of hills and valleys reflected its form and shape with the very land on which it was dependent. The natural aesthetic was irrevocably intertwined with the system of movement. The physical landmarks along the route were a formal part of the image of that specific path. Whatever natural processes occurred help shape the personality of the route. The balance between the aesthetic and the function was well established. There is a definite correlation between the perception of form and culture. Amos Rappoport in House, Form and Culture, stresses the regional
shaping of form and its perception through the bias of culture. The aesthetic of a particular form as perceived by a culture is dependent on many expressed elements other than function. Language, material, social and political forces as well as archeological values have tended to shape the idea of form. It is no wonder that the drastic change in American society between the 1900's to the present has resulted in a formless and regionless environment. It is often impossible to distinguish the degree of uniqueness or particularity from one highway route to another. The sameness - an attitude that appears to pervade our society - has reflected the lack of cultural differentiation. It has produced a highways system, technologically advanced, and yet devoid, in most geographic locations, of any sense of natural form or aesthetic. The machine aesthetic of the roadway that spans the country has a sameness and a formlessness that reflects the very same qualities and mores of the society that built it.

Form and Structure

The structure of the highway emphasizes the techno-material aspects of the roadway while the form emphasizes the natural processes and aesthetics of the landscape. Does this separation represent an inability on the part of the design professional to reconcile the apparent differences? It is true that the technological viewpoint is trained in the "solution to the problem" while the formal viewpoint stresses the "problem with the solution", the need for an integrative design vocabulary is mandatory if
change is to occur. An indictment of the physical environment is far too easy and avoids dealing with the reality of the problem and the potential of apparent solutions. The integration of the roadway and the landform from a structure and form perspective requires that man understand nature and is able to intervene to enhance its creative processes. The despoilation of the natural world by the scything of the landscape for the roadway must end. As the roadway infrastructure undergoes a metamorphosis into a third generation structure, the landform and its intrinsic values, offering both opportunities and constraints to human use must be recognized— as we recognize nature as a process in which man exists.
Technology versus Art

With the formation of national interstate highway system a new era was ushered in that espoused: efficiency of movement at the expense of the landscape; safety considerations at the expense of visual form and the sense of motion at the expense of the highway experience. In the haste to ring the cities and connect disparate regions of America, the interstate highway system has negated the potential of the "strip" in terms of its artistic, educational and cultural image for one that stresses the technology of the times. It is rare to find the highway "strip" used as an image as the role of art is negated over the expediency of connection.

The highway experience has proven to be a physically numbing, often dangerous and time consuming event. The perception of distance is no longer measured in miles but hours or days of incarceration within the automobile environment. The broad perspective of the highway is filled with the blare of the radio, daydreams, endless conversations or the silence of road noise reverberation. The experience has become one of necessity, trapped in interminable traffic jams, suffocating on exhaust fumes or poorly ventilated tunnels or protecting ourselves from irrational and often inexperienced drivers, dodging the potholes of deteriorating highway or refuse that has been deposited.
along it. We are a nation of highway dependent users trapped by the need to maintain our independence and unwilling to participate to any large degree in mass transportation. The art of the technology has proven hazardous to the human condition.

Technology

The role of technology in the post-industrial age has been well documented and has been shown to reflect the current state of the society. In this society, the increasing precision of human understanding of motion in the physical world has led to its recognition as a pervasive aspect of nature. The dynamics of the outside (the automobile) world are in continuous movement, but in spite of this fact, the essential characteristics of the world as we perceive it are constancy and stability. These two attitudes have rendered the overall experience of the national highway system to be one of stasis. The landmarks along the route are given "object" status but the miles in between lie fallow, devoid of any aesthetic identity. The highway "strip" has become a series of inanimate objects strung together by miles of endless landscape bound by the restrictive freeway corridor with the alternating rhythm of the tires ticking the expansion joints the only disturbance. It is hard to believe that such an incredible piece of construction, composed of limitless miles, has been so underutilized as a place for the development of art, both perceived and real.
Perceptual studies have revealed a paradox that shapes creative vision in that the patterns of visual images that reach our brain are always in motion. While the endless repetition of highway elements dulls the senses, the lack of stimulation other than the occasional rest stop or "scenic" overlook produces sensory deprivation. The technology that generated the ribbon form has separated the user from nature due to the functional necessity of interconnection. Nature is something that is seen only at a distance, the distance created by the state of the technology. Rest stops are a very good example of the isolation. The rest stop area is surrounded by fencing, is dedicated to the mechanical relief of the automobile and secondarily the driver. Little if any natural area is provided for human relief and it would appear that the household pet has greater claim to what remains. The building structure performs a double role of feeding the car as well as the driver. Often designed to reinforce the concept of movement, the rest stop building lacks all but the minimal image necessary to its function. Endless diagonal or perpendicular parking spaces surround it with overflowing garbage cans to complete the picture. The role of technology in this arena is clearly dominant. Except for a few isolated places, the state of the "art" is clearly dedicated to the machine and not the occupant.

In the example of the rest stop, the image of place has been stripped of any potential artistic image. The place simply addresses the service and functional requirements. How many times have all the rest stops merged into one generic type
without any differentiation of time, place or space. It has been referred to as a wasteland - a technological wasteland stripped of human meaning and scale.

Art

The technological achievement manifest in the highway has not has its corresponding equal in the form of the artistic image. With the pressure toward increasing highway safety for even greater speeds, the movement has been to express road alignments, field of view and the elements of attention while minimizing many of the natural and man-made features of the landscape, the cities and the environment. The research has shown that the beautification of the national highway system has been quite surficial and has concentrated on the "eye sore" approach and has not dealt with the basic problem.

Highway beautification eliminated many of the visual blights that paralleled the roadway. It is ironic that one of the nation's institutions - the automobile junkyard - was the first to be highlighted as visually damaging to the viewer and to the landscape. To correct the problem, large scale sightline fencing and/or plantings were placed around the yard to isolate the view. The problem was never eliminated because the fencing simply created another type of "blight". In addition, the roadside junkyard, surrounded by the applied cosmetic, became the new symbol of how technology has a high rate of obsolescence built-in. The automobile in motion reflecting its ultimate demise.
Very little thought was ever given toward the integration of the "eye sore" as a form of art that expresses the societal relationship with the automobile. While the junkyard may in and of itself have few redeeming qualities, instead of covering up or eliminating the problem, often a change in design attitude would have brought the junkyard into the vernacular aesthetic of the roadway strip.

Art has largely been viewed as elitist in nature. The museum, the art gallery, the sculpture garden, and the art film attract a clientele that finds meaning at many intellectual and symbolic levels. The American billboard was seen as having little artistic or social value and became another abuser of the highway experience. Gone were the Burma Shave signs, the local signage was eliminated or placed so far off the roadway as to be unreadable at almost any speed. Billboard art became another target for the highway beauticians. It is true that many of the signs reflected little if any concern for the quality of the subject but emphasized the message. As a nation, we were taught through a media blitz that our national pride would be enhanced if we eliminated or covered up those public eye sores. Highway beautification became a moral issue for the population. To replace much of the man-made blight, nature was called upon in the form of ground cover, coniferous and deciduous trees and earth berms that turned the right of way into a high speed corridor.
As the nation undergoes an annual stylistic change in its vehicles, it sees little of the seasonal change in its highway landscape. The art or component has been reduced to superficial treatment in isolated places. The conservation of cultural property has had little impact on the highway strip. The sense of place, from region to region, has been nullified by the sameness of the technological response. The art component has been eliminated by the repetitive nature of spatial elements that define the highway edge.

Art and Technology

Perhaps the greatest resource toward the combining of art and technology on the highway is Man's entrepreneurial capacity, which is his disposition to look far ahead toward the provision of future services. For the economic gain he neatly assembles goods and services in a thoughtful and careful manner. He pays great attention to the proper combining of these pieces and displays a fastidiousness in what is relevant to the project. But he does not seem to care about what is not immediately relevant to the project and therefore behaves in a reckless fashion with respect to that. The joining of highways sections, the on and off ramps, bridges, overpasses and tunnels, each in themselves is well worked out and then joined in a workman-like manner with little thought given to the compatibility of the components or the aesthetic of the topography and natural form of the route.
The interaction between the art form and the technological form occurs most often by happenstance. The damage done to the environment by the roadway suggests that as professionals serving a useful social function, creating the highway, we conduct operations in a manner that is rational relative to that singular purpose, but thoughtless and damaging with regard to the scene in general. Art has long been considered a means by which society can examine itself, its values and its aspirations. The amount of time that a citizen spends on the national highway is staggering. The miles of roadway with such great human exposure could be used to introduce the art component necessary to create an aesthetically pleasing environment. This approach is based on a market measure of the value placed upon the character of the landscape. Indeed, the commuter has chosen to commute for the aesthetic quality of the living environment, setting, view or the character of the place. The motivations to merge highway and landform are identical; it is the search for an aesthetically pleasing roadway environment where the highway amenities reflect the qualities and aspirations of the society at a local and regional level.
Serpentine floral plantings reinforce the treed embankment.

Natur-Skulptur by Nils-Udo (b. 1937)
Looking versus Seeing

To clearly describe the subject matter of a work of art, the term "expressive content" is used. Expressive content is the unique fusion of "subject matter" and specific "visual form" which characterizes that particular work. The landscape on which the roadway sits has its own expressive content separate from that of the roadway. These two can also be integrated to form a new "expressive content" which can be seen as a work of art. The objects and incidents along the highway can be viewed as subject matter. The landscape itself can be both subject matter and visual form. We tend to look at these elements in a subjective manner. The expressive content which we can see is the combined effect of both the subject matter and the visual form; in this case the landform. The ability to see the landscape in a moving vehicle is largely dependent on the aesthetic integration of the roadway with the natural landform.

The spatial experience of the highway "strip" is related to man's viewpoint: incarceration in an automobile. When incarcerated the driver is limited to a two-dimensional field of vision framed by the aperture of the windshield. The looking is as basic to the highway environment as is locomotion. The seeing component requires a more active involvement between the viewer and the landform itself. The complex relationship between the looking
and the seeing components forms the basis of an effective highway design.

When combined with velocity, the human eye has great difficulty distinguishing the form of the art object over a long distance and tends to compress all similar colors, contrasts, forms and textures into a narrow two-dimensional field of vision. Within this restrictive field, large forms tend to attract immediate attention while gradual changes in spatial or object form seem to progressively blend from one visual step to another. The blending of form reduces the driver's visual awareness of form. In this way our eye moves from point to point following a pattern which may vary with regard to point of origin or concentration but not in expressive content. The nature of this pattern when applied to the highway environment should be considered with care since much feeling can be conveyed using the experience of movement.

The formal relationships that are observed within the frame of the automobile in motion are largely dependent on a perception of line, or direction. How the landform is seen depends on a number of factors: scale, proportion, perspective, color, contrast, massing and edge. While there are many theories about how man sees and perceives space, the visual apparatus: the eye, brain and processes appears to be central to the perception of the highway environment. The three-dimensional aspects of man's nature do not appear to be of equal importance to that imposed by the linearity of the highway.
Looking

Motion is capable of favoring and intensifying the empathetic element which exists in both the passive and active states. The effect and efficacy of motion - motion which is rapid in respect to the "norm" established as basic to our physiological nature is passivity. We have a passive attitude toward the dynamics of events which surround us, not a dynamizing effect which would intensify our perceptive and cogitative activity, but an effect which is compelling, spell-binding, blunting our normal perceptive and conscious faculties. Trapped within the highway "corridor", those spatial and perceptual faculties lie dormant until resuscitated at the end of the trip or acted upon by unforeseen events.

The perceptual transformations resulting from speed on the "normal" panorama of the roadway has conditioned the driver's ability to respond to localized changes along the roadway. The consequence of "tunnel vision", created by motion effects, is a driver with a restricted field of vision and a reaction time that is significantly lower than that of a non-highway driver. The new possibilities of visualization and of representation induced by the mode of transportation are unlimited when applied to the current highway environment. The effects of motion places demands on the design of highway related objects that substantially modify their static imagery. Forms that would normally appear in the driver's field of vision as static "serial" elements must be seen as more three-dimensional in order to forewarn of upcoming events. It is important that the designer integrate
the communicative and aesthetic forms which have sprung up as a result of technological mechanisms. The potential lessons to be derived from cinematography, television and serial animation techniques, when applied to the highway strip, are enormous.

While man's visual ability to look versus see has been severely conditioned by his world, it is within recent time that he has found himself in contact with a technological condition that profoundly interferes with his ability to remain responsive to visual stimuli. The seeing component is reduced to a primal state when subjected to the rhythmic nature of the roadway. The lowered state of consciousness has been shown to be extensive and creates conditions for the driver and passengers that are quite dangerous. When objects and landscape in the foreground are passing with great speed, and are therefore difficult to register, "tunnel vision" concentrates the driver's attention on the background which often appears to be immobile and therefore becomes a visual constant for the driver to "lock" onto. "Fixation" on static elements in the roadway suggests that visual attention centers on elements that do not exceed a certain quotient of rapidity. The looking component is expressed within the fixity of the visual image that exists in the background. The visual "blinders" that are attached to each driver, and frequently the passenger, when in motion creates a narrow field of vision that appears to be only stimulated by "legible" elements scattered along and about the highway landscape.
The reading of the elements, which are kinetically perceived, is made possible by the fact that a particular symbolic "element language" is established. The meaning associated with each element is progressively introduced to the driver over a prolonged period of time. For example: a farm complex, located in the driver's visual background, will emerge as a visual element until sufficient information is established necessary for recognition. By the time the element has moved into the foreground, its meaning has been established and discarded for another distant element. In this sense, the driver saw the object through an element language.

Seeing

Whenever an observer moves from place to place, the pattern of his field of vision undergoes a perspective transformation. The "perspective" is generated from a static point within the landscape. A stationary point has been fixed along the highway strip as a point of observation or an "overlook." This type of stationary perspective is defined as "pure vision" as the observer's visual image is understood from a static position. The majority of the highway experience is limited to this type of condition. While the roadway overlook captures a significant aspect of natural phenomena, the observer must remain stationary. The requirements of perspective force the viewers to position themselves on a predetermined station point in order to obtain the "scenic" aspect of the landscape relative to the highway strip. The natural panorama with its visual content is restricted to a limited number of places along the highway.
ribbon. Based on the placement of the overlooks, rest areas and other points of extra-vehicular activity, the frequency appears to be determined by two attitudes: concern for safety and the technical requirements of motion. Little has been given to understanding the internal harmony of the highway from the perspective of the expressive content. The seeing component is often completely missing or relegated to a secondary role thus the expressive content of the landscape is seldom realized. The sculptural fusion of the roadway, landform and the objects forms the basis of the landscape which can be seen from the inside-out and the outside-in.

Aside from the sculptural analogy, continuity is an inherent part of the highway environment. The landscape represents a dynamic force, undulating and wavy, that counters the necessity of roadbed alignments and radius of curvature. The effect is one of mismatch between what is understood from the roadway and what is seen from the outside looking in. When the observer moves, the world around him is set in motion. The environmental field of mass, space, light, surface, detail and place appear to be seen as a continuous rotation throughout the highway corridor. The roadway has traditionally been designed from the driver's perspective. As a result, the view has been essentially two-dimensional. The three-dimensionality of the landscape has been pushed to the background in order to express the technological and functional criteria inherent in the design of the highway.
The visual enjoyment of the highway is sometimes an experience that defies analysis. The expressive content appears to be coincidental as many views are marred by guardrails, concrete parapets or bridge abutments. The movement along the freeway corridor should provide the driver and the passengers with a sequential and unfolding view of attractive images. The world in motion to the driver should not be abrupt or fragment but continuous and comprehensible. In the urban setting there is a specific need for framed visual settings. The effect of motion requires that the faster the vehicle speed, the narrower the angle of vision. This restrictive view requires the visual field to be designed to such an extent that objects, landmarks or natural events in the distance are featured in order to establish a sense of place and not just a featureless entity to escape through.

Looking and Seeing

The importance of both looking and seeing in the design of the highway is clear and is in part based on understanding the specific requirements and abilities of the human eye. The thresholds of human vision at rest differ significantly from those in motion. The range of psycho-physiological data collected suggests that the ability to look and see is directly controlled by a number of principles: seeing is dependent on light energy; seeing takes time and is limited in space. There has been sufficient documentation to support the notion that as vehicular speed increases, space perception becomes quite impaired. Space and motion are perceived indirectly, with the help of
memory, by relative changes in size and position of "objects". As the speed increases, the observer gradually underestimates the vehicular speed and therefore is less able to evaluate the relationship between space and motion. The deterioration of the seeing component is inevitable in this setting. While the observer may "look" at the surrounding landscape or urban form, the driver is bound to a very narrow lateral enclosure that, without some variation, can result in a loss of reality thus further reducing the seeing component.

The spatial detachment from the roadway due to the effects of motion is central to this investigation. The loss of human life attributed to a loss of reality occurs on a daily basis and clearly warrants a re-evaluation of current standards and methods employed in the design and planning of the interstate highway system. The relationship between what can be seen and that to be viewed must be integrated within the highway environment. Horizontal and vertical roadway elements carefully conceived can produce a highway experience that broadens the aesthetic value of the trip while at the same time increasing driver safety. The seeing component, through which the expressive content of the roadway is revealed, must be consciously designed with formal goals in mind not simply technological ones.

There are six determinants that must be accommodated in the design of the interstate highway system. Each determinant having very specific expressive content requirements necessary to maintain safety standards and visual quality.
The first determinant of visual form is the **highway environment** which means its relationship to the landscape and adjacent structures. The current emphasis on visual "settings" and "objects" is particularly weak in this respect and ignores even the basic relationship of the highway to the sky. The potential afforded the designer or planner to expand upon basic spatial and object inter-relationships would "particularize" stretches of highway thus attenuating the driving experience.

The second determinant of visual form is the **functional requirements** of the highway corridor. Great emphasis has been placed on the technological solution, little has been done to conceive of the roadway as a means of expressive the sculptural content of the technology employed. The sameness of the technological solution from one end of the highway to the other reduces the impact of the visual image. By stressing differences in technology and problem solving, the designer has another tool to utilize.

The third determinant of form is that of **cultural and regional conditions**. Issues of climate, land massing, earth color and light conditions or elevation are seldom accounted for in the design process. An interstate section in the West shows little difference in its aesthetic placement from a similar stretch in New England or the South. There are numerous reasons for the homogenous nature of the roadway such as industrialization, economics, labor and the state of highway technology. A greater emphasis on regional or cultural differences that stress unique ecological or environmental factors should be consid-
ered. The potential for introducing educational features of the landscape or the regional culture are enormous.

The fourth determinant is that of material. While macadam, concrete and steel form the major building materials of the construction palette, the range of material application is quite limited. Little aesthetic variation is encouraged in the placement, forming or surfacing of these primary materials. Since slight surface variation in the texture of the material can produce great visual changes, the potential does exist to increase the application of texture, color and forming of the material.

The fifth determinant of visual form is that of the experiential and physiological aspects of the highway corridor. Much of the highway system appears to address the more functional aspects of design at the expense of addressing human issues. While the idea of the American Dream is dependent on freedom of movement, the quality of the experience has not been dealt with. The highway represents a "place" to many travelers, and yet few "places" exist along the route to enhance the experience of movement or of rest. The potential exists to create special places along the highway corridor that are dedicated to the quality of the human experience rather than the expeditious of the vehicle.

The last determinant of visual form is concerned with the intangible or "spirit" of the times. While the roadway represents and type of continuity in time and space, it should also

Illumination extravaganza. Milwaukee Stadium Freeway. University of Wisconsin, Department of Landscape Architecture.
express its respective time. Each decade is expressed by its vitality, its tensions, curiosities and desires for creature comforts. The highway has the far greater potential to express those unique characteristics of its time and place than simply fulfilling the functional liaison between disparate parts of the nation.

The landscape is one continuous experience in time and space, it is a composite expression of everything felt, seen and sensed, the unique bonding agent being that of motion. As a visual experience the national landscape is a resource to be experienced, nurtured and maintained. The connection to the landscape in our society is achieved primarily through the mobility afforded by the automobile, and as such, the highway represents the gateway to the natural environment. In a society where change is the only constant, land, roads, utilities, buildings and elements of the landscape must be revitalized on a regular cycle, and the opportunity to re-evaluate and invest in the visual aesthetic exists.
Transformation of surface texture through illumination. Student Project under Gyorgy Kepes

Transformation of surface texture through patterning. Student Project under T. Maldonado