Enclosure Elements

The freeway generates noise, fumes, headlight glare and a lot of headaches, which are continuous reminders of the obtrusion in a residential or commercial area. Set backs, right-of-ways and eminent domain are a few of the methods employed to isolate the roadway from its immediate environment. The complaints of the citizenry have generated a number of "designed" solutions. The standard designed response has been to introduce large-scale, formless walls between the offender and its context. Another solution has been to modify roadway alignments by depressing the highway into a claustrophobic trench. Simply building barriers is not an effective solution to the problem. Distance between the roadway and the surrounding area, frequently seen as a physical means of overcoming noise and air pollution, merely spreads the problem to a larger area. A better understanding of some of the design options, and their associated costs, can assist the design professional in resolving the problem.

This section introduces the enclosure element. The enclosure element is based within a formal vocabulary of: walls, recesses, enclosures and edges. By recognizing that the roadway and its environment must co-exist, the introduction of enclosure elements can provide a means by which a balanced solution can
be achieved. The influence of a highway, passing through a residential area, goes far beyond the market value of an adjacent residence. The physical and mental health of the residents can be seriously impaired. The acoustical wall, can be designed to act as an isolator without the expected negative side effects. Serpentine, zig-zag or staggered acoustical walls, acting in conjunction with embankment slopes, ditches or underpasses, can be used far more effectively than the accepted repetitive and visually sterile acoustical solution.

The enclosure element, in the form of a recessed passage, can be made into a formal event with large scale sculptural forms acting as buttresses edging the highway. The development of tunnels, underpasses or overpasses are a response to the need to cross the highway strip. These elements can be designed to respond to more than just the functional need. Using sculptured forms, textures and color, the enclosure element can effectively contribute to the overall aesthetic of the roadway. Contrary to current design philosophies, individuality of elements can be a desirable quality. Variation on the theme does not imply visual chaos but rather, a positive change in the visual and spatial characteristic of a featureless highway experience. The enclosure element may be seen as large scale ornamentation that works in conjunction with the landscape rather than overpowers it. The use of roadway landmarks, that have character in and of themselves, is one of many artistic means available to the highway design professional to combat roadway ugliness.

The direction of movement can be enhanced by reinforcing the natural edge.
Enclosure Elements

Object: Serpentine Wall

The urban highway corridor has been isolated from the community which it serves with large scale fences, embankments or tunnels. The "tunnel vision" aspect of the urban highway has been well documented as having negative aesthetic value.
Some communities have invested in large scale fencing, acoustical walls, privacy screens and barriers to reduce the environmental impact of the highway. In doing so, little value has been added to the expressive content. In the case where screening, acoustical barriers are required, a greater concern for the formal design aspects of the remedy must be expressed. In the case of a simple isolating wall, a serpentine form or a form other than a pure linear one enhances the sense of edge as well as the feeling of movement.

In this proposal, a reinforced brick masonry serpentine wall is placed along the edge of the roadway. The masonry color and the form add a pattern or texture to the edge that makes the visual experience far more tolerable. In cases where a linear wall is necessary, large scale textures, graphic art or murals may make a significant difference to the highway traveler. The potential for the community to advertise itself is enormous considering the inexpensive wall space available.
Enclosure Elements

Object: Cross-Roadway Wall

The barrier that exists between the roadway and the landform is similar to that of a wall and the outside space. The roadway is seldom seen as a means of unifying space but rather a wall that demarcates a place. The wall becomes impenetrable and...
Therefore has little to do with its contextual setting. When applied to the highway strip, the wall becomes a means of enclosing or defining edges from the inside-out. In this scheme, the wall is placed across the highway strip in a fashion of a fence. The openings for the highway form the only entry point through the wall suggesting a complete isolation from the other side. The driver, approaching the wall, will have a heightened awareness of the transition from one side to the other. The wall can act as a transition from the contained highway corridor to a local, regional or national landmark, a rural or suburban community or demarcate an area of special interest. The wall could incorporate a path across the highway connecting scenic areas or rest areas. The work of the artist Christo is quite similar to this proposal as the wall has the potential to act as a unique reference point between man and the landscape.
Enclosure Elements

Object: Punctured Wall

A wall is designed to enclose, divide or protect an area that has a special value. This society uses the wall in a physical sense to demarcate legal boundaries or to separate one piece of property from another. The punctured wall is a means of
reducing the absolute separation by providing an large enough opening sufficient to provide a visual link between sides.

In this scheme, wall elements are offset from each other and are penetrated with a large scale opening. The random nature of the openings is intended to not only provide visual interest from the motorist's viewpoint but to those viewers on the outside looking-in. The openings are placed to frame selected views of the highway as well as the landscape. This method has been used quite frequently in Europe where acoustical separation was required but a visual link was necessary. Through the careful placement of wall openings with a transparent panel, French designers were able to meet both requirements. The need for a changing environment to heighten driver interest is effectively provided for with the punctured wall.

These punctured walls are suitable for urban, suburban and rural scales and can vary in height, texture and form.
Enclosure Elements

Object: Walled Space with Objects

During the automobile trip, distance is seen mainly as an element of time. Time is the one element that is a constant. Distance is measured in hours of driving, not in the actual mileage. The concept of distance is important in driver safety for many
reasons. Distance between vehicles, distance to an exit and the velocity of the vehicle are among the most important. Distance that is not dependent on the element of time is another means of heightening driver awareness. In this scheme, an enclosed space through which the vehicle travels is the means by which the concept of distance is transmitted. The enclosed chamber, open on four sides, represents a unit of distance. Measuring 600 feet to a side and filled with Platonic solids, the chamber is a means of creating an identifiable and unique space along the rural highway. In one particular setting, the enclosed space becomes the refueling stop or rest area where the entire space is separated from the outside except for selected openings. This is similar to those rest stops that span the highway and yet are undefined as to their boundaries. The central idea is that the enclosed space is different from that on the exterior and thus becomes a shelter from the highway environment. The enclosure could be solid or transparent or simply a frame that demarcates the sanctuary.
Enclosure Elements

Object: Open Center Wall Elements

The center strip represents the division between two different directions of movement, speed and destination. It is often filled with steel or concrete guard rails and is seldom used as a formal element in the design of the highway. The Taconic State Parkway, being a notable exception to the rule, reflects a sculptural aspect missing in most interstate highways. In the framed center element, a series of concrete portals frame the opposing lanes of traffic to act as a singular sculptural element. Used over a long distance, the placement of the frames could coincide with areas needy of heightened driver awareness or of specific environmental factors affecting driver safety. The frames would be multi-colored and possibly illuminated for night-time use.
Enclosure Element

Object: Space Enclosure - Frame

The time it takes a driver at 60 mph to travel 600 feet is approximately 7 seconds. During that period of time, the driver has shifted visual focus to a distant point. In this scheme, the driver is aware of a spatial change due to a change in the shape of the cone of vision imparted by the geometry of the rigid frame. The frame creates a definable space that modifies the driver's field of vision and provides a point of interest along the route. This scheme is similar to the enclosed wall in that it relies on controlled access between the interior and exterior spaces. The frame extends the feeling of the horizon from the car window. The frame need not be rectangular but can accommodate a variety of shapes at the super scale. The frame would be constructed from reinforced concrete and would be painted.
Enclosure Elements

Object: Landforms - Concrete

During the past decade, environmental sculpture has begun to populate the landscape. Large earthworks or landforms in the shape of spirals, fissures, mountains, geological or natural phenomena have become national landmarks and in some cases have made the artist's name a household word. There exists the potential for greater interaction between the environmental artists and the landform as it relates to the highway. A major aspect of environmental art is the educational value of the work. Using forms suggestive of dinosaurs or similar reptiles from times past, the artist could mold specific sites along the route to convey information of that particular time period. This form of education would not require the motorist to stop but the information could be communicated over a great distance.
In this scheme, large scale earth forms, supported with concrete walls and edges are formed to represent geological strata found in the region. These forms, placed along the roadway, are designed to impart a certain amount of information. Coupled with the visual form, signage placed at strategic points would provide additional information about the subject. In certain areas, a restricted local roadway radio broadcast would provide the audio component. The experiential aspect of the forms, coupled with the educational component would increase the value of the highway experience.
Enclosure Elements

Object: **Recessed Negative Grid Elements**

The highway is a horizontal plane that acts as a datum for bridges, embankments, slopes, tunnels and overpasses. Any natural feature such as a lake, river, stream or pond is set at a lower elevation for safety and aesthetic purposes. The driver of
the car seldom is able to see the larger panorama due to a minimum height advantage. Any depressions in the landscape are obliterated with the horizontality of the roadbed. This scheme creates a series of negative depressions that could be used for water storage, fish cultivation and the like. This depression is designed on a grid and the highway spans through the depression in the form of an overpass. The depressions would be staged over several miles so that the motorist would have a sense that an unusual event was taking place. As speed bumps are designed to alert the driver of an upcoming event, the depressions perform a similar service. The depressions, ranging from 4 to 15 feet deep are constructed from a textured reinforced concrete. They have the capacity of being drained and in very arid climates could contain natural habitats for the local ecosystem.
Enclosure Element

Object: Recessed Earth Basin

In this scheme, a series of basins are placed parallel to the flow of traffic. They are water storage basins and are controlled by pump houses located on the other side of the roadway. The motorist is presented with a view looking down into the basin.
structures. In the highway construction process, the natural landform is disfigured to such an extent that only a major overhaul of the surface could bring the landscape into its own. While this condition is not prevalent, the landscape needs to be reworked. By recognizing the geology and topography of the area, the designer can insert a large scale project that creates visual interest and evokes the expressive content of the area. The water storage basin is such a project. The form can be modified to accept large variations in surface form and geological strata. The basins may be ornamental or functional and are constructed from reinforced concrete.