THE INTEGRATION OF THE

RESEARCH SUPPORTED BY A GRANT FROM
THE NATIONAL ENDOWMENT OF THE ARTS
AND THE UNIVERSITY OF WISCONSIN-MILWAUKEE
ABSTRACT

The national interstate highway system has been regarded as a technological masterpiece, the emphasis has stressed speed and efficiency of movement over the aesthetic elements inherent within the landscape and the roadway. The prevalent attitude of negating the landform is countered by this project which stresses the artistic potential of the roadway through the introduction of, artistically derived, formal design elements. Using landscape, median, gate, spanning, roadway and enclosure elements within the highway planning and design process, the design professional can introduce a new vocabulary to the process of highway construction. The formal design guide presents a range of design potentialities, that when combined with the technological requirement of an efficient and safe highway system, a unique and identifiable "design aesthetic" will prevail.

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A gazebo, placed in the median strip, can allude to regional history.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title Page</td>
<td>1</td>
</tr>
<tr>
<td>Abstract</td>
<td>3</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>4</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>5</td>
</tr>
<tr>
<td>Preamble</td>
<td>7</td>
</tr>
<tr>
<td>Part I</td>
<td></td>
</tr>
<tr>
<td>The American Highway System</td>
<td>11</td>
</tr>
<tr>
<td>The European Highway System</td>
<td>19</td>
</tr>
<tr>
<td>Attitude and Approaches</td>
<td>23</td>
</tr>
<tr>
<td>Structure versus Form</td>
<td>25</td>
</tr>
<tr>
<td>Technology versus Art</td>
<td>31</td>
</tr>
<tr>
<td>Looking versus Seeing</td>
<td>39</td>
</tr>
<tr>
<td>Part II</td>
<td></td>
</tr>
<tr>
<td>History of the Highway</td>
<td>51</td>
</tr>
</tbody>
</table>

Sculptural blocks of water placed in rest areas can provide recreational interest.
Part III

Resources
  Inventory  63
  Abstracts  77

Part IV

Design Handbook
  Roadway Elements  137
  Median Elements  143
  Enclosure Elements  163
  Landscape Elements  187
  Spanning Elements  207
  Gate Elements  233

Part V

Conclusion and Recommendations  257

Part VI

Bibliography  271
  Technical Information  277
  284

Stair elements placed into embankments or rest areas stimulate visual focus.
This research was undertaken under a grant from the National Endowment of the Arts to investigate the role of the natural and man-made landscape under the influence of the interstate highway system. The three major objectives of the study are as follows:

1. To determine the degree to which the American landscape, under the influence of the national highway system, has been altered, destroyed, re-shaped or modified at the urban, suburban and rural scales of interaction and to determine what historical, cultural and environmental factors are associated with that changing landform.

2. To determine the range of existing and proposed formal design concepts, theoretical bases and objectives that underlie the interstate highway planning process.

3. To develop a formal design guide that codifies visual and non-visual formal elements in the three scales of interaction and illustrate how design related criteria can be incorporated into the highway planning process.

Investigations into the objectives outlined above involve the
accumulation of technical and artistic data, current studies and literature in the fields of environmental design, highway planning, motion and safety as well as ecology, aesthetics, human perception and the future of transportation systems.

The research, investigation, design guidelines and documentation are included in this report in the following order:

**Part I** establishes the basis of the investigation by defining the parameters of the problem through attitudinal, socio-economic and political factors as well as the current "state of the art" in the United States and Europe and its infrastructure.

**Part II** presents the highway from a historical perspective and the evolution of the conflict between technological and cultural goals in the developmental process of the highway.

**Part III** examines and inventories the physical elements associated with the highway planning process as well as the literature resources currently available to the highway planner.

**Part IV** presents a conceptual design guide organized around three basic modes of interaction between the car, the passenger, the highway strip and the landscape.

**Part V** presents a summary of design ideas and establishes a method for implementation.
Part VI presents a current bibliography and the sources through which information and site related data was acquired.

The report establishes a philosophical position regarding the use of architectural, sculptural and environmental elements as an integral part of the highway planning process. Each part establishes just cause for the examination of goals, policy and implementation necessary to reverse the current "state of the art." In addition, the ground-rules for future interstate highway projects are clearly delineated in terms of the nature of the relationship between the project and the landscape. Through the dissemination of ideas, design attitudes and theoretical hypotheses, the professionals associated with the highway planning process can insure a greater harmony and balance through the integration of the highway and the landform.

The design guide may be utilized to develop projects that parallel the current rehabilitation effort in rebuilding the infrastructure as well as the planning of new highway projects. By introducing visual and cognitive elements into the highway "strip", the highway can become an effective tool for the dissemination of cultural and historical values. The highway planning professional, by accepting, interpreting or modifying the design attitudes and tools contained within this report, will be able to increase highway user awareness and appreciation for the land and its value to the quality of life.

The intention of this project is therefore the dissemination of
design ideas, resources and formal applications to stimulate and challenge the professionals associated with the highway planning process. This report is available to all local, state and federal agencies involved with the national highway system through:

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