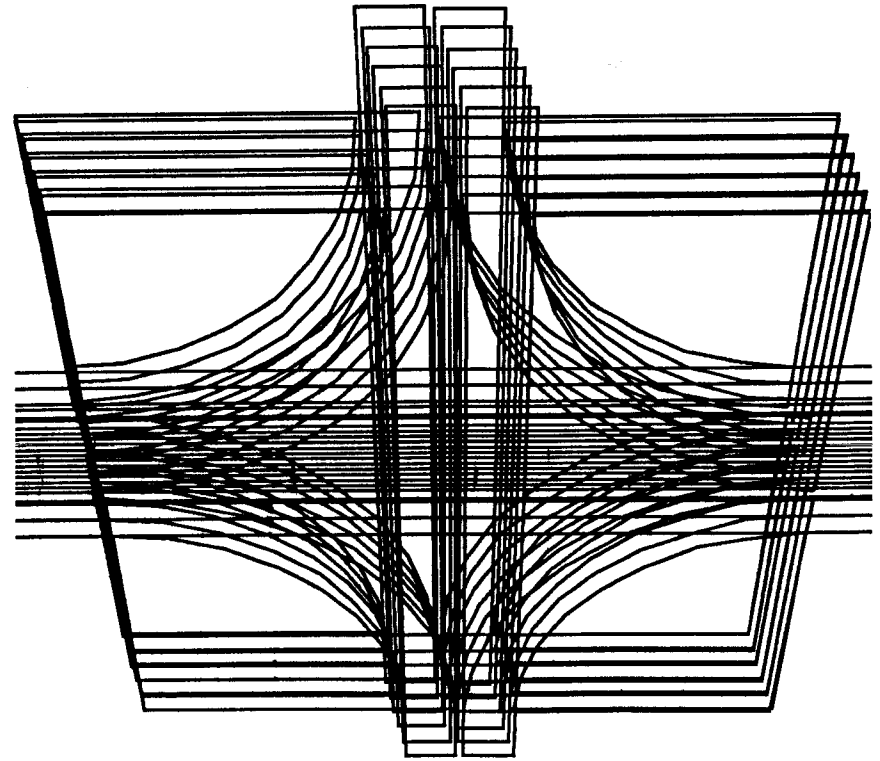
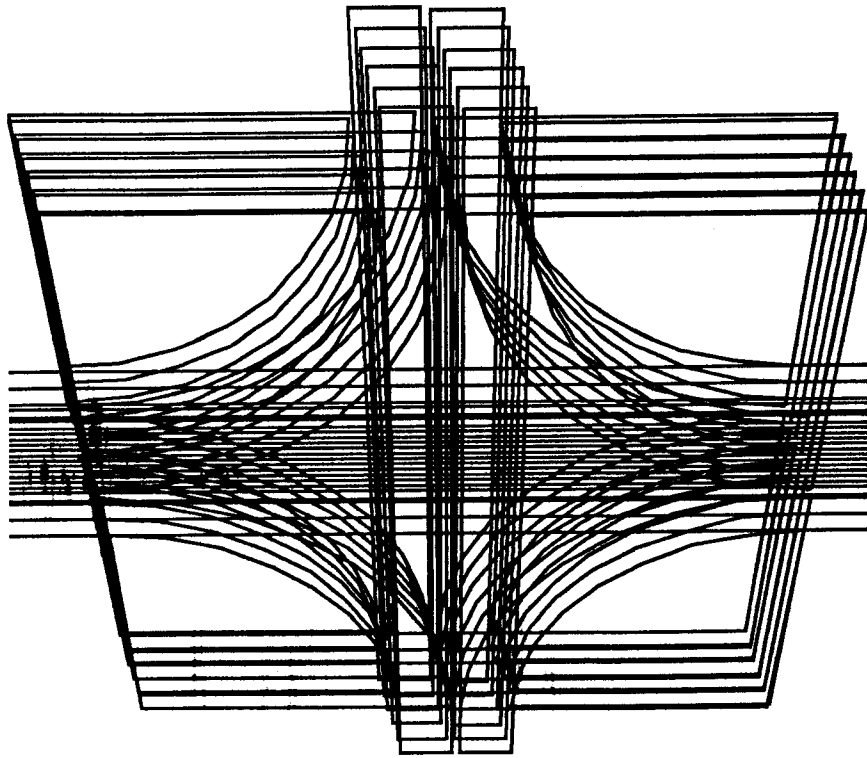
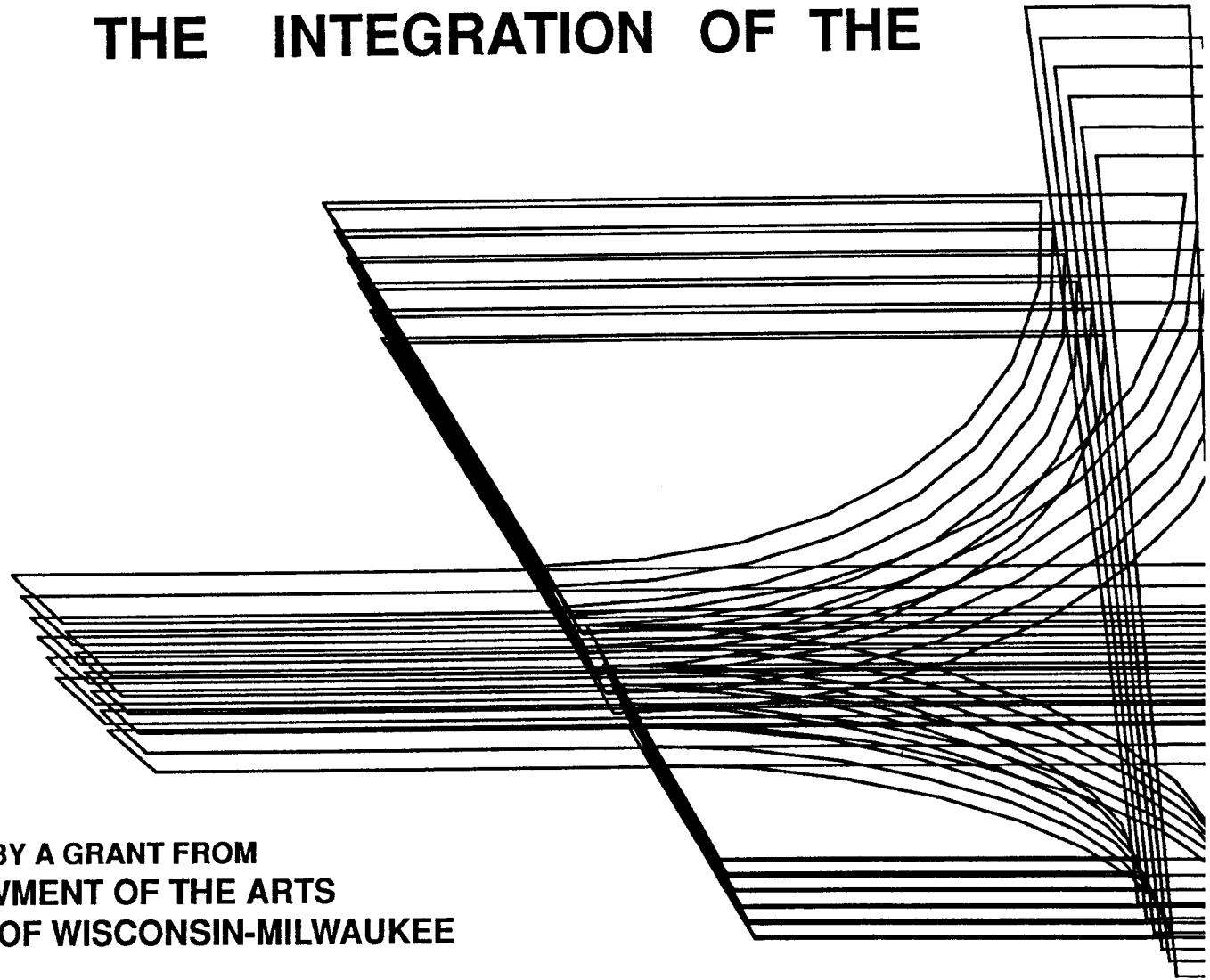


# INTEGRATION OF THE HIGHWAY AND LANDFORM

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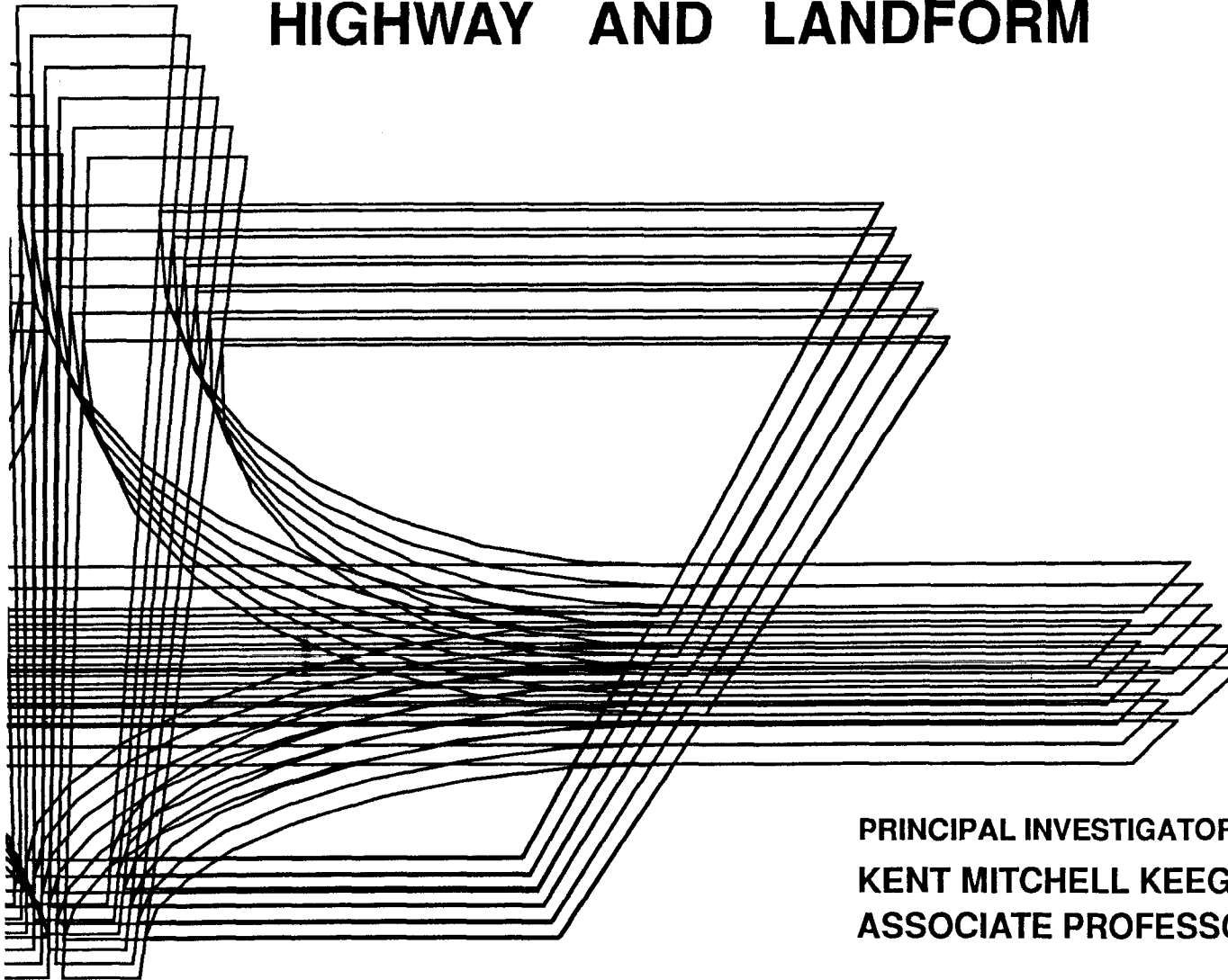
# THE INTEGRATION OF THE



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

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# HIGHWAY AND LANDFORM



PRINCIPAL INVESTIGATOR:  
KENT MITCHELL KEEGAN  
ASSOCIATE PROFESSOR OF ARCHITECTURE

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## ABSTRACT

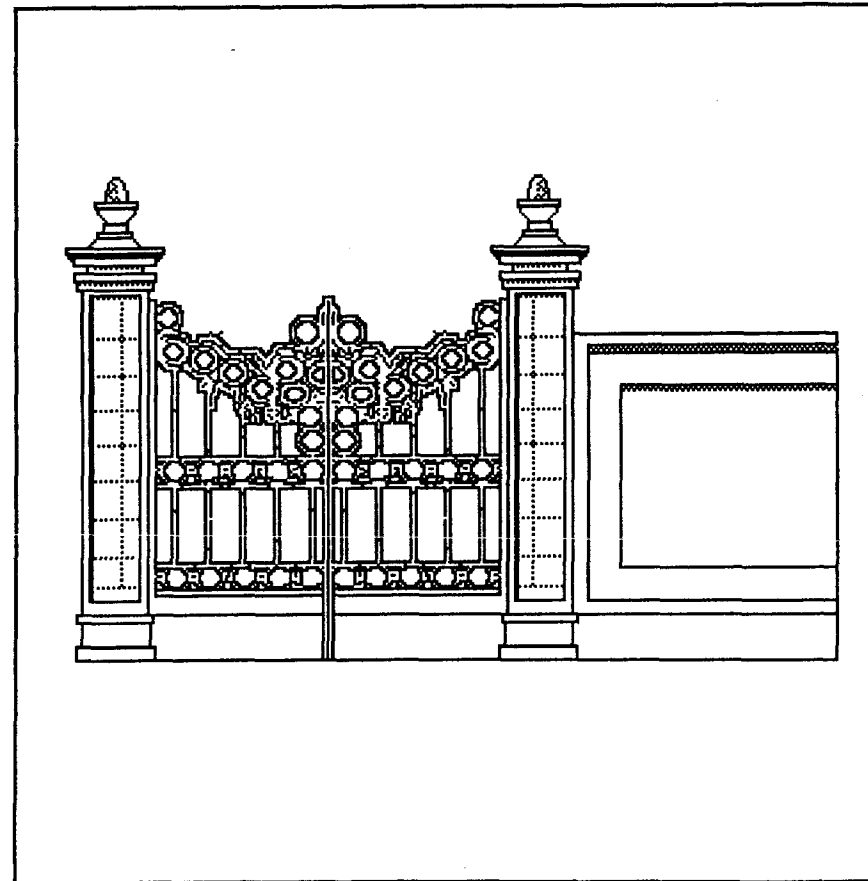
The national interstate highway system has been regarded as a technological masterpiece, the emphasis has stressed speed and efficiency of movement over the aesthetic elements inherent within the landscape and the roadway. The prevalent attitude of negating the landform is countered by this project which 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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Gate elements in a variety of scales and shapes can be used to suggest visual entry or procession.

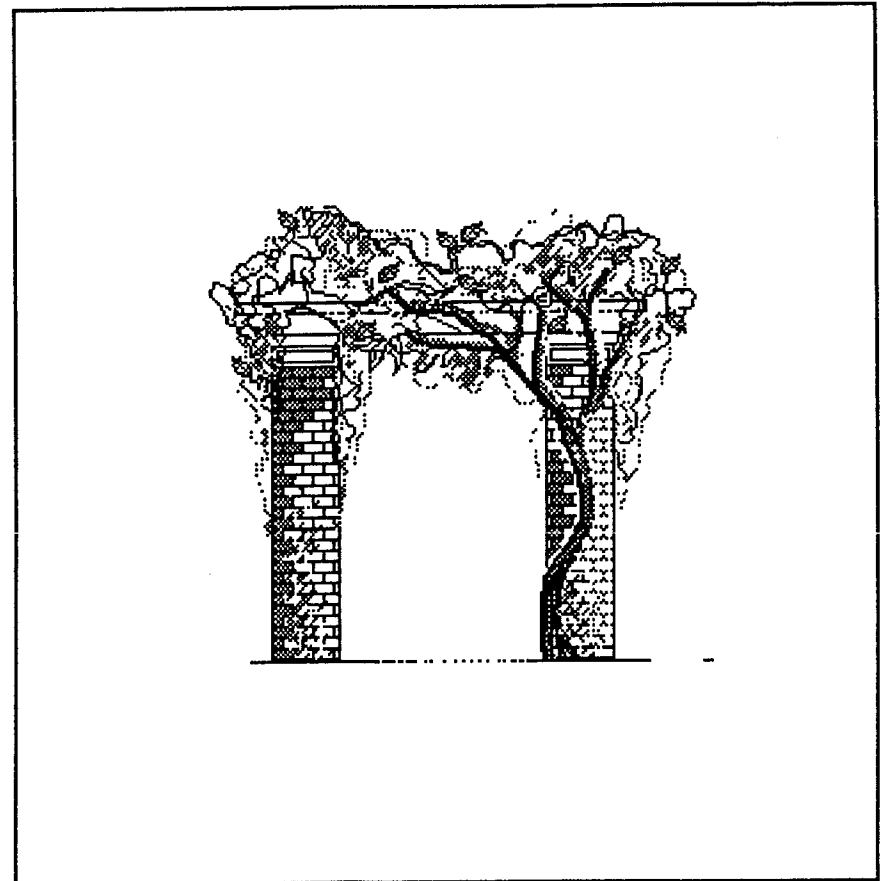


## ACKNOWLEDGMENT

While this project had its moments of acceleration and deceleration, the professional assistance and moral support provided by my very able Research Assistant, **James Brus**, was indispensable to the successful completion of this project.

In addition, I would like to thank the following people for their support: Professor **David Reed** for his early assistance, Ms. **Cythia Zantow** for all of her editing insights, Ms. **Lynn Higgins** for her willingness to talk about the ideas contained within, Ms. **Mary Bates** who managed the impossible, and to the Center for Architectural and Urban Planning Research, specifically, Professor **Gary Moore** and **Tim Lovett** for their support.

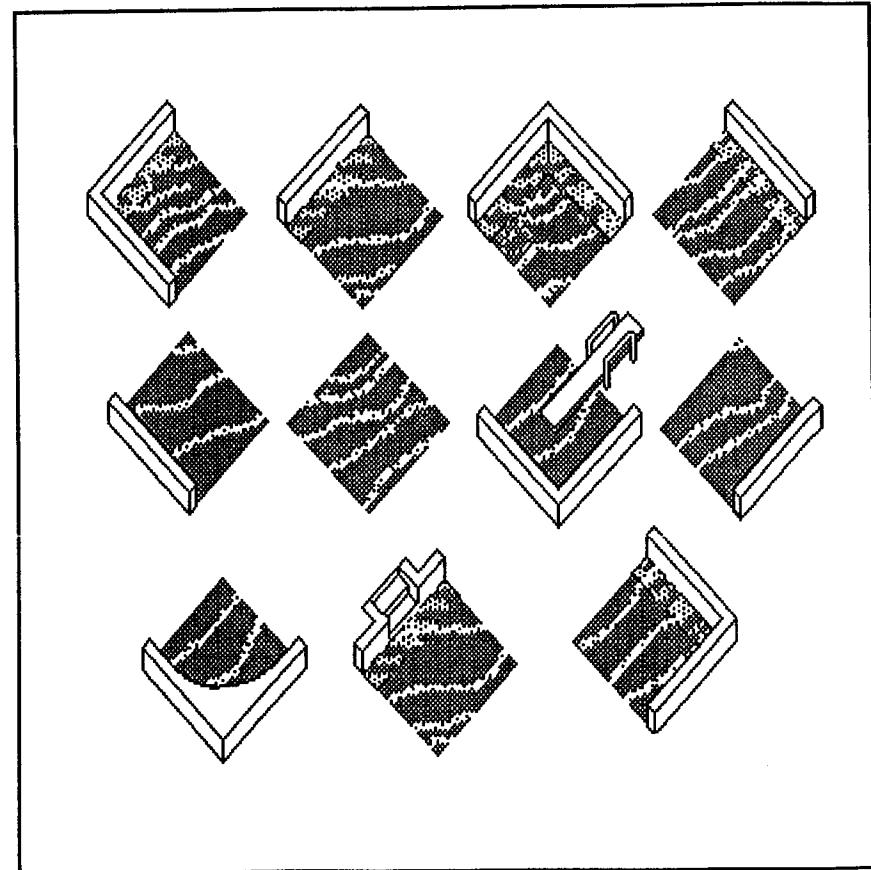
A gazebo, placed in the median strip, can allude to regional history.



## TABLE OF CONTENTS

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

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



**Part III**

**Resources**

Inventory	63
Abstracts	77

**Part IV**

<b>Design Handbook</b>	<b>137</b>
Roadway Elements	143
Median Elements	163
Enclosure Elements	187
Landscape Elements	207
Spanning Elements	233
Gate Elements	257

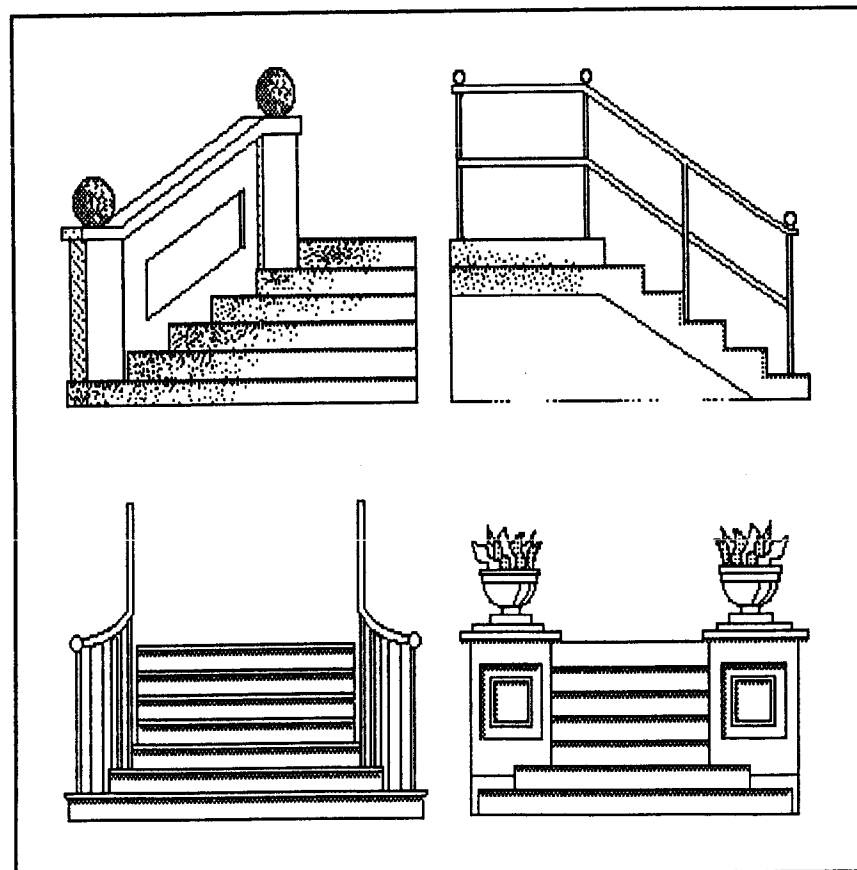
**Part V**

<b>Conclusion and Recommendations</b>	<b>271</b>
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**Part VI**

<b>Bibliography</b>	<b>277</b>
Technical Information	284

Stair elements placed into embankments or rest areas stimulate visual focus.



**PREAMBLE**

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:

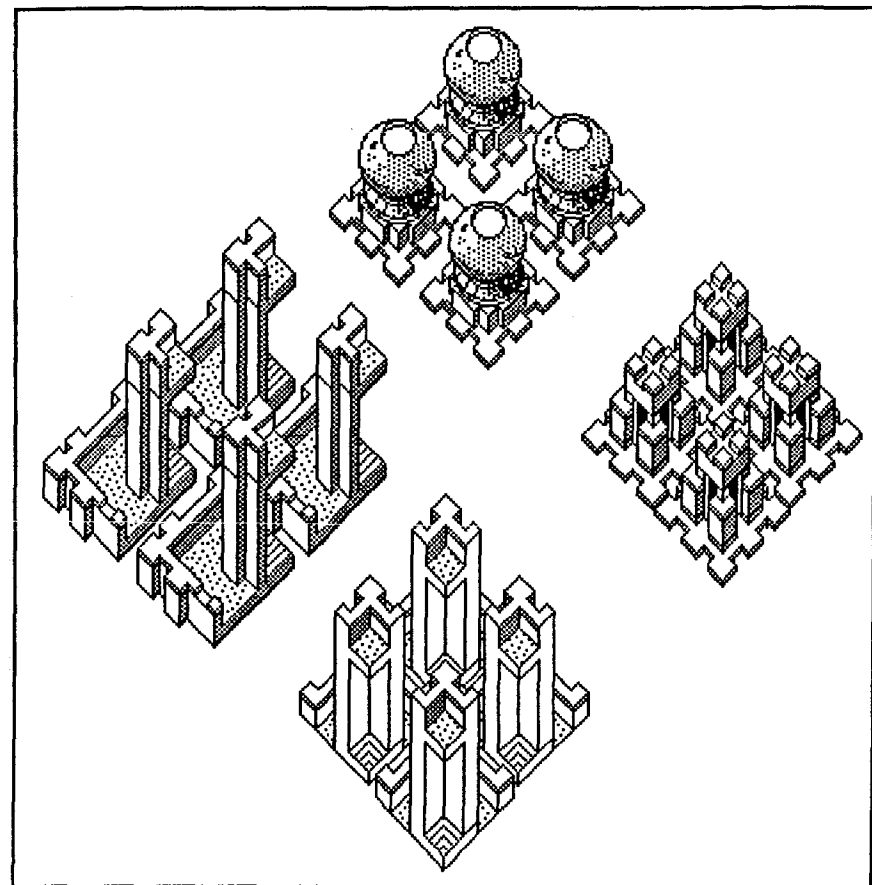
1. To determine the degree to which the American landscape, under the influence of the national highway system, has been altered, destroyed, re-shaped or modified at the urban, suburban and rural scales of interaction and to determine what historical, cultural and environmental factors are associated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

Roadway and reststop lighting can be highly distinctive as well as modular.





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.

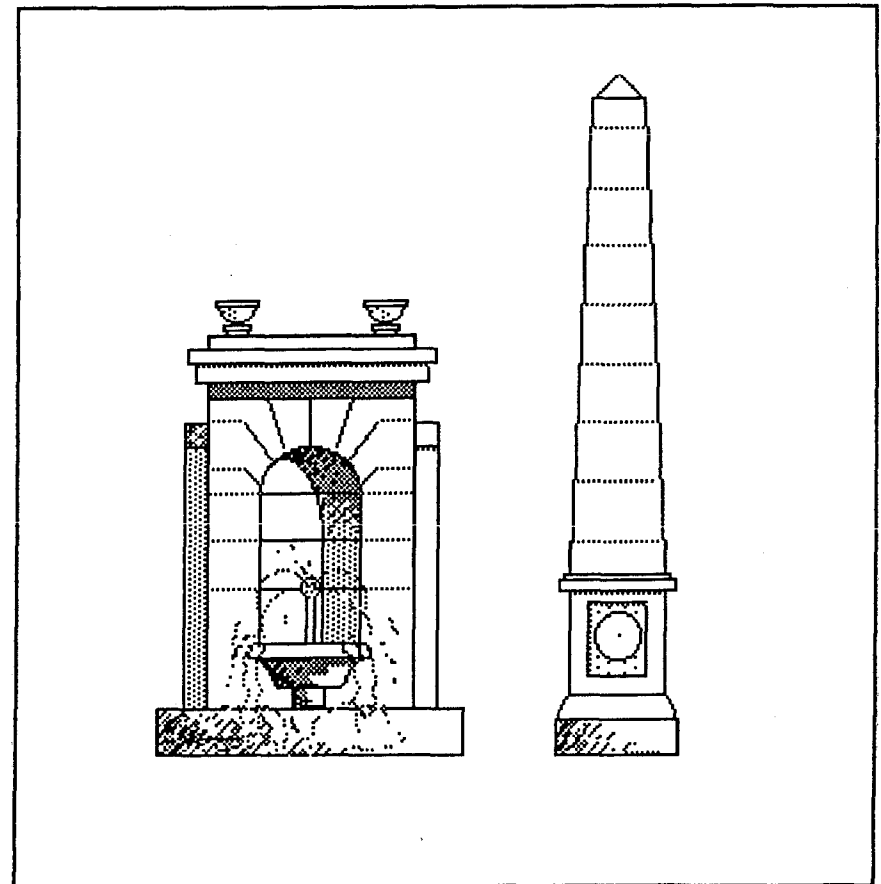
**Part II** presents the highway from a historical perspective and the evolution of the conflict between technological and cultural goals in the developmental process of the highway.

**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.

Fountains and ornamental columns can become highway signage.



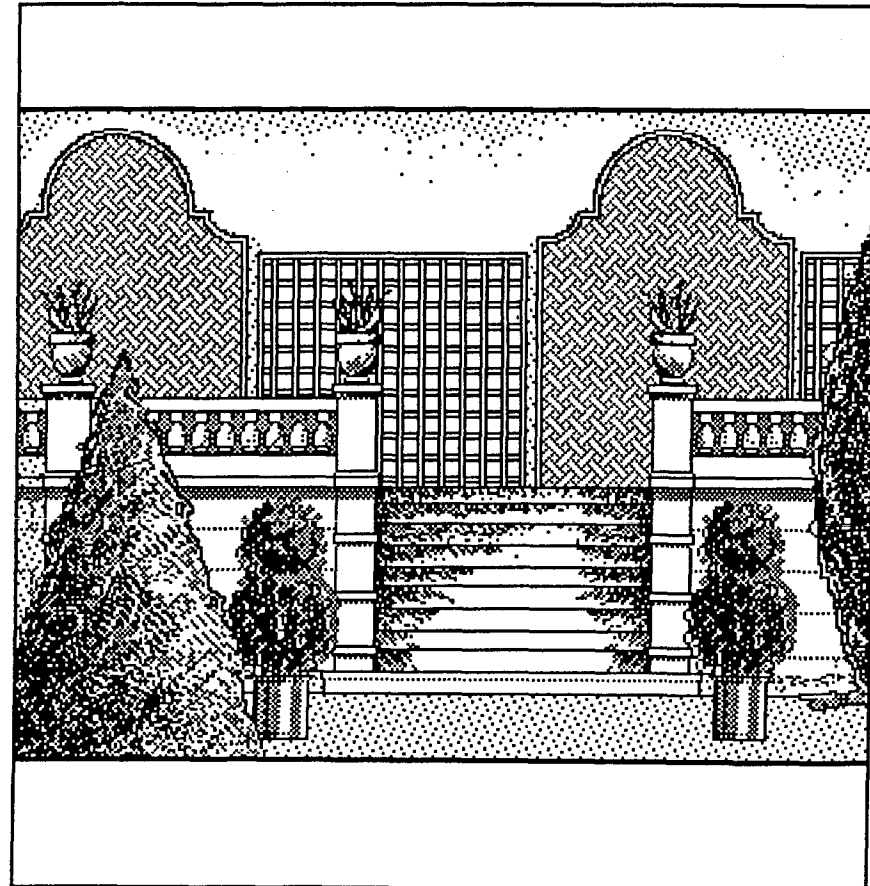
**Part VI** presents a current bibliography and the sources through which information and site related data was acquired.

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

A terrace formed as part of a rest stop can provide a respite from the roadway.



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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