FIBERGLASS SANCTUARY
A NEW CORVETTE MUSEUM

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A New Corvette Museum

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To the 1989 Corvette I used to own
Thank you for letting me know the attraction of Corvette.

To My Parents
Thank you for your support and motivation.
A museum is an important type in the palette of public buildings. Most famous and iconic museums are mainly dedicated to house art works, or historical and cultural artifacts. Aside from the sheltering of the artifacts, museums often are landmarks, which contribute to the identity of a place.

The few museums dedicated to the automobile is interesting because America, also called the country on the wheels has little more than very basic renovated warehouses or former factories, with little commitment to exhibiting cars in a beautiful manner. The proposal here seeks to define a space that both honors its Corvette exhibits and hopefully provides sufficient architectural character to be accepted as an institutional landmark.
I would like to thank all my committee members, Heiner, Mario, Bill, who have given me invaluable advice throughout steps of my design development, help me realize my dream, design a specific building for the Corvette, my favorite sports car. I have had a great lesson in learning the importance of working with time frames.

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CHAPTER ONE

RETHINKING THE CORVETTE MUSEUM
INTRODUCTION

In past 65 years, the Corvette was always considered the icon of the American sports car. With the development of newest Corvette generation, America’s most famous sports car is looking to move beyond the U.S. onto the world stage. At this point, its European competitors, such as Porsche and Ferrari, designate the Corvette still a rare niche brand. On a personal level, as a former Corvette owner, I hope that the qualities and beauty of the Corvette can be recognized by the greater general public. And as a student of architecture, I see my contribution in an attempt to envision a new Corvette Museum.
The original National Corvette Museum located in Bowling Green, Kentucky, opened its doors on September 2, 1994. The museum is located only a quarter mile from the Bowling Green Assembly Plant, where Corvettes have been manufactured since 1981. Making a Corvette-only museum is the brainchild of Terry McManmon, a long-time member of National Corvette Restorers Society (NCRS). After communicating with General Motors and Corvette associates, the National Corvette Museum started construction, ten years after McManmon’s initial idea. Although the Corvette Museum was not financed by General Motors or Chevrolet, it received a number of historic Corvette models from GM. But because of a tight budget, the build itself is basically a silver-shimmering warehouse with yellow tent.
On February 12, 2014, a sinkhole opened under the floor of the Skydome area of the museum at around 5:44 AM local time, causing a portion of the floor to collapse. Eight rare and one-of-a-kind Corvettes, portions of the display stands and rails, large concrete floor slabs and dirt fell into the sinkhole, causing serious damage to some of the Corvettes. The Corvettes involved have an estimated value of a million dollars. The remaining 20 cars in the Skydome were immediately removed from that area. Between March 3, 2014 and March 6, 2014, 5 of the 8 Corvettes were recovered from the sinkhole. The museum reopened the day after the sinkhole appeared.
Although the National Corvette Museum was restored after the 2014 damage, as a museum it is outdated. Similarly, the location of the museum in Bowling Green Kentucky is away from major tourist routes. As a possible site, for a new corvette museum I envisioned Los Angeles California, famous for its urban automobile generated landscape and perhaps a good place to enjoy the lineage of the Corvette.
Near the Santa Monica Beach and Pier 1541 Ocean Ave, Santa Monica, CA is a prime location in greater Los Angeles. Almost everyone who comes to Los Angeles will visit, the beach, pier, ferris wheel and the walkways lined with palms.

At this site, the program calls for the presentation of 65 years of production resulting in seven generations Corvettes, from C1 to C7, and also the present eighth generation.
View from Santa Monica Beach
CHAPTER TWO

INITIAL INVESTIGATIONS
I studied the form of several classic Corvettes in an attempt to discover formal principles that might be applicable in architecture.
Like the iconic sports car Porsche 911, the Corvette is also known for its streamlined silhouette. A study of the lines of the classic Corvettes offered themselves to help understand a possible formal link between automobile and architecture.
Initially, the architectural idea called for cars to be presented on platforms to be moved along a rail on the floor. Additionally, the higher floor levels of the museum become an observatory for the city, beach, and the Pacific as the background of the Corvettes.
In an initial idea, silhouette-derived elements are guiding both horizontal and vertical dimensions of the building. Seven floors display Corvettes from C1-C7, from bottom to top. Connected with a stair behind the car wall, the architecture offers a linear walk-through the history of the Corvette. Seven concrete walls offer the silhouettes of each generation Corvette in plan.
Typical car museums tend to display cars for museum visitors after purchasing a ticket. Pedestrians without tickets have no access to the cars. In my proposal I abandoned the concrete silhouette walls and modified the initial silhouette idea into a curved frontal façade wall filled with cars presented to street and waterfront. The curved facade wall is based on the profile of each car and the perspective lines of sight from sidewalk paralleling the shore.
Model of the initial idea, the steel wire simulate the view from the sidewalk.
CHAPTER THREE

STRUCTURE AND ENCLOSURE
Roof, walls and also the curved facade wall are conceived as a triangulated steel truss systems where steel tensile cables suspend the floor slabs and stairs from the trussed roof system. Three concrete traffic cores stiffen the back walls of the building and anchor the floors to prevent swinging. The glass enclosure is stabilized with a cable truss. As a result, there is no column in interior.
Floor frame and cable

Triangle steel truss and traffic core

Floor and stair

Cable truss glass envelop enclosure
Detailed drawing of the upper levels and corner condition of building.
Detailed drawing of the ground of the building.
The enclosure system of the building
CHAPTER FOUR

RELATIONSHIP BETWEEN VISITOR AND CAR
The relationship between the section and plan
TOP FLOOR PLAN
The interior of the museum is hints toward historic events such as the sinkhole accident and other events in the life of the Corvette. The organization of the Corvette Museum is based on the New York Guggenheim Museum with a ramp descending around the building. The center atrium of the building holds suspended Corvettes damaged in 2014 accident.
View from the sidewalk
The museum aims to give people an unprecedented experience in an automobile museum. Automobiles are presented similar to a framed picture. Unlike other museums, the critical collective part of the collection can be best appreciated from the sidewalk. The building itself does not use any car elements directly, but is inspired by the structural frame and the advancements in the technologies of the Corvette. With an absence of columns the interior of the museum offers the entire collection at once without any obstruction. Aside from the perfect vehicles on display, the museum also houses a part of the old museum with a place for the Corvettes damaged in the 2014 sinkhole accident.
BIBLIOGRAPHY

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