

Island in the Sun: Mapping a New Future

Arch 384: SSEF GAS BAR COMPETITION ESSAY

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The twentieth century has seen numerous discoveries that have altered the trajectory of human kind. Beginning with electricity, the steam engine, and gas engine, advancements in technology have shaped new patterns and models in the daily living of earth's inhabitants. With each discovery in technology new opportunities arose to shift how we spent our time and where we spent our time. This is continual process of discovery and reconfiguration continues to inform and reshape our society. These changes always seem like they are for the better, but too often we discover otherwise.

Collectively the first 6 decades can be classified as the age of transformation through transportation. With the industrialisation and mechanisation of the world, distances between cities, countries, continents and even planets began to shrink. And with this revolution came a reformatting of the lifestyle and models within which humanity related to the world at large. Suddenly the boundaries that separated us were dissolving as advancements in flight, aerospace and automobile travel were breaking ground in the New World. Technology held the promise of a better future for all. The world of tomorrow never seemed brighter.

In North America, the automobile made the greatest visible impact on the physical landscape. From its humble beginnings in the early 1900's to the mass produced Model T of the 10's and 20's, the automobile offered an unprecedented amount of freedom and accessibility to the average household. This translated into new patterns for working and living. Suburbs emerged to respond to this new freedom. They allowed families to live further and further away from Major City enjoying the openness and ownership of land. And in response to growing cities were intricate and ever expanding networks of roads, freeways and parking lots to move and contain the vast amounts of wheels on the road.

From the roaring 20's up until the late 60's North America witnessed the Golden Age of the automobile. It was marked by an era of unprecedented experimentation and optimism about the future of transportation. In the late 1920's the famous route 66 was built which linked one coast to another opening the West Coast to further expansion and exploration. It represented a new frontierism and nomadicism that was immortalised in literature and songs and the postcards of the open road.



Commercially, the freedom of these ever expanding highway systems and the exploding amount of motorist on the road provided a climate similar to the “Gold Rush”. Entrepreneurs and visionary businessmen saw a huge market and were quick to populate the roadside with motels, attractions service stations and more. The open road held the lure of success for any entrepreneur with a dream took a chance at striking it rich. There was a sense of whimsical opportunism as the highway opened a new frontier for enterprise. Every business tried its best carve a niche market, drawing attention to itself and eccentricities that distinguished it from its competitors. It was a circus of attractions, fighting to capture the eye of passing motorists.

Architecturally this translated into a frenzy of experimental and whimsical pieces that fought viciously for supremacy in the new landscape. For a time, roadside architecture flourished unregulated along the highways that criss-crossed North America. Gas Stations, motor courts, drive-in restaurants, curio shops,

homemade "museums", and idiosyncratic "monuments" did their garish best to feed the appetite of motorist in search of the next greatest thrill. Natural wonders like the Grand Canyon, the Redwood Forests and Human achievements like mount Rushmore and Hoover Dam served larger tourist staples, while regional eccentricities based on folk myths and local legends peppered the road trip experience. Giant Jack Rabbits in Oklahoma, Indian tepees in Arizona and oversized cowboy hats in Texas, as well as Indian novelty shops and "world's biggest" attractions provided an atmosphere of an amusement park along the open road. It was an age typified by individualism, personality and one-up-man ship.



Even during the Great Depression, the car industry still sustained unparalleled growth. There were 143,000 retail outlets for gas in 1929 just prior to the depression, 170,000 by 1933 and this number ballooned to a staggering 231,000 in 1940. Clearly the momentum of the car craze was not going to be slowed down by a nation-wide economic crisis. Through out the 40's, 50's and early 60's the car industry and all its support services continued to diversify, expand and experiment, offering newer and more varied types of experience on the road. They catered to every taste and whim from the sports car to the streamline, the roadside was an exciting place with so much to choose from.



However by the late 60's the golden age of the highway was coming to an end. Suburbs had grown so large that the simple two-lane highways could no longer exist in an unregulated manner. By 1970 close to 1/5th of inhabited North America was paved in asphalt. It became too clear that the youth and energy of the automobile golden age was maturing into a much more regulated and systematic environment. Instead the 70's brought forth the age of infrastructure and pragmatism. Six lane superhighways, interchanges on ramps and off ramps all moved people to and from cities in conveyor belt like mechanism. The city and suburb had become a mega monster requiring a systemisation that had little room for the quaint, local and individual scale. Slowly the family owned business would fall prey to crushing wave of huge corporations. It no longer became profitable to rely on gimmicks and eye candy to attract motorists. Instead chain motels and gas bars adopted branded logos, and easily mass-produced prototypes to provide market visibility. Rest stops became a mere function of necessity offering the basics of gas food and lodging.



But even more threatening to the romantic notions of the open road, than the new superhighways are the changes that come in the wake of the newest revolution. Today, the transportation era gives way to the information revolution as megabytes pave the new information superhighway of the digital age. Characterised by fast food, video games and mass consumerism we live in a world where the romance for the open road is faint. In its place is an appetite for screen resolution, modem speed, and LCD monitors.

This digital age, much like the transportation age, is reformatting the way that we live and structure our lives. Where as the automobile offered new freedoms in movement, the Internet is opening avenues that cross both time and space. We are exposed to a new form of nomadicism in which the multiplicity of experiential destination is threatening our own concepts of home. We stand the risk of being enveloped by the digital and dismissing the importance of the tactile.

As neo-nomads we are not enchanted by the romance of the open road. Instead our journeys are of a virtual nature. With the onset of the Internet and wireless technology we can perform our daily functions anytime and anywhere. The home or coffee shop can become the work place. The commuter trains are easily turning into the scene for business transactions. Boundaries are continually shifting. Cell phones, PDA's and laptops offer us a new freedom – a freedom from a fixed locale. But through these advances we have stand the risk of losing our connection to our locale. Our love affair with technology translates into ambivalence towards our immediate surroundings. If we can truly be “anywhere” at “anytime” then what is significant about being where I am at this specific time? The question therefore is posed: “How can technology make us more aware of our environment?” “How can technology reinforce our relationship to a specific locality?”

The response to this question rests in accessing the possibilities that our new technology has to heighten our awareness of place as opposed to alienating us from it. To come full circle, it seems appropriate that automobile remain the focus of our investigation. Since it has had such an important role in the changing of our current landscapes, perhaps revisiting roadside architecture can begin a new dialogue for the motorist and his place in the world.

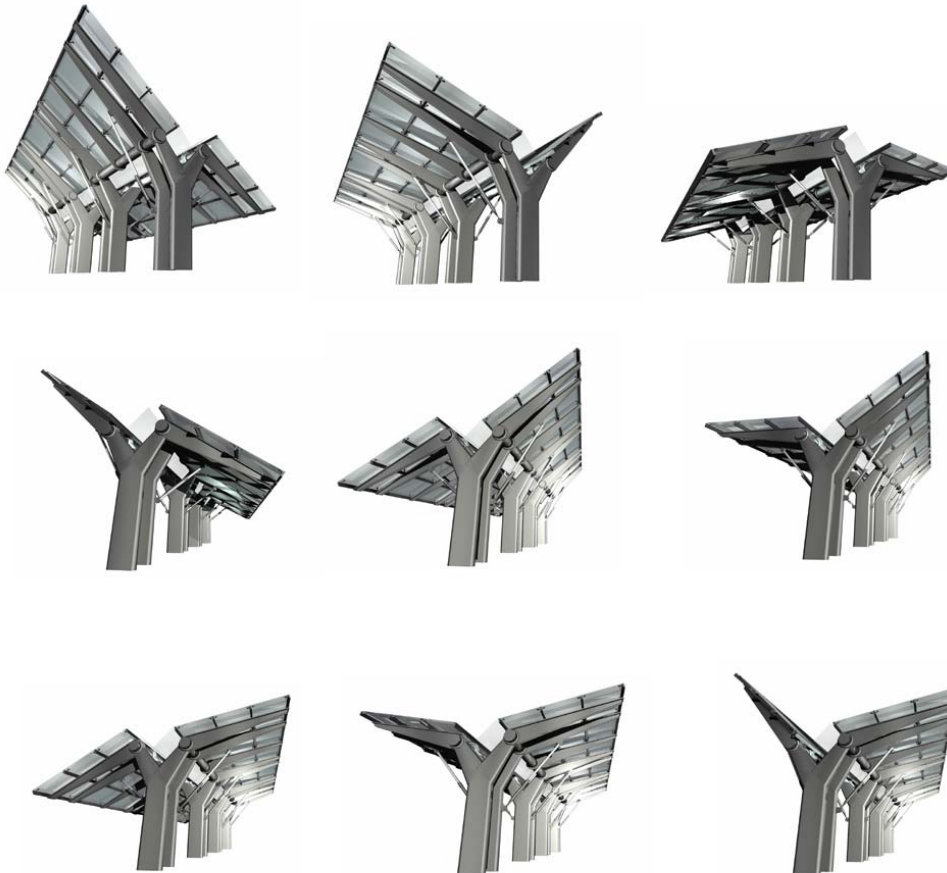
Once a place for whimsical architectural expression, the gas bar like most roadside architecture fell victim to the over expansion of the suburbs. Now a

product of the digital age, the gas bar stands as an emblem of our alienation. Wherever you go, they always look the same. They never reflect anything local, or vernacular or personal. The importance of place and signification of authenticity of the past no longer exists. In its place are “cookie cutter” prototypes. Today, Big Box retailers, fast food chains, and gas stations alike bank on the sameness of experience that it offers its patrons whether it is in the cold of Alaska or the deserts of Arizona. Familiarity of corporate logos has numbed the explorative instincts of our predecessors and have removed our passion for the eccentric and unexpected.

Through this project entitled, “Island in the Sun”, the Gas Station becomes the stage for a moment of synthesis - simultaneously unfixed and transient place that reinforces one’s sense of location. This gas station seeks to develop an increased interaction with the surroundings, providing both a real-time and long-term response to the site conditions. It attempts to create an ongoing dialogue that shapes the immediate environs to trigger one’s perception of the place and time in which one has visited or driven past the site. In responding to the conditions of the site at large, it begins to shape its locality and reclaim a sense of ownership to the land on which it resides.

The gas station operates as a monumental timepiece, kinetic sculpture and weather barometer -offering a site-specific response to the daily conditions of cloud coverage and sun position. A large pivoting glass canopy achieves this. Housing transparent photovoltaic glass panels, it is programmed to trace the path of the sun. Its shape and configuration changes throughout the day providing a gauge of the temporal city. It is an informed architecture that also serves to inform. As a kinetic sculpture, it is involved in an intimate choreography with the change in time, weather and season. Whether on a busy inner city street corner or in the middle of the Mojave Desert the one’s experience of the gas station is always unique and guided by the present conditions. It is never a copy of another. It exists specifically in and for one time and one place. In contrast to

the “anytime”, “anywhere” mentality that wireless technology affords this technological response promotes and manifests the singular experience in space and time that is uniquely governed by its surroundings.



The canopy arm is made of two tapered t-sections that meet at a hollow steel round arm. The round metal enclosure houses an axle with bearings that allow the canopy to rotate with ease. The photovoltaic cells are from a company called voltarlux in Germany. The product is one of the first photovoltaic products that offer transparency. In most cases they will have 50% opacity, allowing a degree of light transmission that can be adjusted depending on the location and desire for shade within a specific location. The photovoltaic panels are suspended off the structure by a spider clip glazing system. The energy gained from the sun is then collected and stored in a battery. Through out the day as the sun moves

through the sky and as cloud patterns change sun exposure hydraulic arms extend and retract to position the canopy in its optimal position. To accommodate larger sites a typical 2 bay gas island can expand by adding additional support towers and gas pumps. The intention is to provide a framework that can be reproduced but once installed will never operate in the same way as another.

VOLTARLUX SOLAR ENERGY MODULES ARE TRANSPARENT MULTI-FUNCTIONAL FACADE ELEMENTS: THEY CAN BE USED IN ALL NORMAL WINDOWS IN THE SAME WAY AS CONVENTIONAL INSULATING GLASS OR PANEL GLASS UNITS - WITH ONE MAJOR DIFFERENCE: THEY ALSO COMPRISE A SOLAR POWER UNIT DELIVERING UP TO 60 KWH PER M² PER YEAR. A FURTHER BENEFIT IS THEIR REDUCTION OF INCIDENT LIGHT WITHOUT THE NEED FOR ADDITIONAL SHADE PROVISION. VOLTARLUX IS AVAILABLE IN A VARIETY OF VERSIONS FROM SEMI-TRANSPARENT TO OPAQUE.

THE GLASS IS TREATED WITH AN AMORPHOUS SILICON LAYER 50 TO 100 TIMES THINNER THAN A HUMAN HAIR, WHICH DELIVERS A NEAR-CONSTANT NOMINAL OUTPUT ALMOST COMPLETELY INDEPENDENT OF AMBIENT TEMPERATURES. THIS MEANS POWER IS GENERATED EVEN ON CLOUDY DAYS. THIS LIGHT-PERMEABLE LAYER ALLOWS A BALANCE BETWEEN LIGHT TRANSMISSION AND SHADE PROTECTION.



It suggests a new way of living with our technology. Instead of alienating us from the physical realm, it invites us to become more aware of our environment - to access it and gain from it and be responsible for it. We are learning now at an alarming rate that not all that we have hailed as progress and advancement is to our ultimate benefit. Daily discoveries prove that the foods we have been eating,

the toxins we have been dumping and the lifestyle patterns we have been adopting are in fact killing us. As we seek to navigate the new roads that our technology paves, it is paramount that we begin to take a more deliberate approach to world we are building for tomorrow.

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