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Off-Ramp: An Architecture of Deceleration

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OFF-RAMP  AN ARCHITECTURE OF DECELERATION

Sam Adkisson

Advisors: Jennifer Akerman + Brian Ambroziak
The roadside was also a mighty market place, 900,000 miles in length, $ 3,000,000,000 in girth, and founded upon a single word: Restlessness

-James Agee

Aerial photo of a Los Angeles interstate junction. Here countless people moving at a wide range of speeds.
The off-ramp is a piece of infrastructure found with the Interstate Highway system in America. It is this piece of Restlessness. In order to leave a place, the off ramp is the first step in escape. If one grows tired or satisfied with traveling, the off-ramp is the shifting point in an otherwise continuous travel; the sequence of speed we have on the Interstate is shattered by this transition. The off-ramp is the first moment after leaving the Interstate and its speed where we can look around and understand our surroundings.

What information is lost to the speed of daily life?
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What creates slowness in the sequence of travel?
Perception: a single unified awareness derived from sensory processes while a stimulus is present.\[^3\]
CHAPTER 1: INACCURACY IN PERCEPTION
Eadweard Muybridge’s 1877 series of photographs reveal inaccuracies in perception lost to speed. In real-time, the gallop of the horse appears to be entirely grounded. It is only once this motion is slowed down that an entire understanding can be formed. [2] The imperceptible frame of the horse entirely lifted from the ground gives new insight into speed itself: the greater our velocity, the less we observe.

Where ever you want to look, you cast your vision, in doing so you focus in on that, developing the notion that the whole world is in focus.

-David Eagleman[4]

Our minds process a constant influx of new stimuli from our senses. The brain converts this into a cohesive perception of time and place. The faster we move, the narrower our perception. Slowness allows for a more acute perception of our surroundings. It is here that more information can be gathered to form a clearer image.
An old man sits and watches the world while the rest of it speeds by him. He is able to understand more around him than most people because he slows down to pay attention.
Frame from the start of the race in Le Mans. This scene shows the anxiety and anticipation just before the start at noon.
Chapter 2: New Perceptions

What can we learn from moments of Slowness?
Some events in life seem to move in slow motion, breaking with the pace of normal time.

They know that time struggles forward with a weight on its back when they are rushing an injured child to the hospital or bearing the gaze of a neighbor wronged. And they know too that time darts across the field of vision when they are eating well with friends or receiving praise or lying in the arms of a secret lover.

-Falls, crashes, and victories all share this slowness. David Eagleman, a neurologist at Baylor University, has studied these moments throughout his career; he studies how the brain varies the level of detail it incorporates into our perception. In traumatic events amygdala, the part of the brain responsible for emotional reactions and significance, begins recording these moments in intense detail.

Our brains do not actually operate at super speeds during this slowness, rather, more information that is collected allows more a longer, and more complete experience. In a test he refers to as the “odd-ball” test, the constant repetition of a single image with a second one randomly inserted causes us to assume the second one is displayed for a longer interval because of the new information presented.

What if architecture can be this “second image?”

Either the rate of heartbeats and breathing is speed up so that an entire lifetime is compressed to the space of one turn of the earth on its axis - or the rotation of the earth is slowed to such a low gear that one complete revolution occupies a whole human lifetime.

In a scene from the film Le Mans, directed by and starring Steve McQueen, slowness is affected in the moments before a race begins. Drivers see time tick slower and slower, heightening an unbearable anxiety for the race to come. The sequence occupies only a few frames, but it captures anticipation, preparation, arrival, and departure in their entirety.

Anticipation is accompanied by the growing heartbeat and contrasted by single frames lasting longer and longer as the sequence moves forward. Preparation breaks the stillness as the flag rises and the engines rumble to life. Arrival is reached when both the racers and the spectators climb to what seems to be their maximum anxiety. The heartbeat and the roar of the engine seem to further slow down time. When time seems unable to move any slower, all sounds suddenly disappear just as the clock strikes noon and the race begins. The Departure from the start line, free from wait and anxiety, triggers the sudden return of time, sound, and motion.

Change in velocity and the time of movement alters our perception of our surrounding, revealing things we might not otherwise notice. Information that is always present yet unnoticed is finally, consciously registered within us.
Analysis of Starting Line scene in *Le Mans* [D] [8] [9]

- **Anticipation**
- **Preparation**
- **Arrival**
- **Departure**
A series of walls placed along the interest are varied in depth. The variation arises from where a single perspective looks onto the landscape. The faster someone travels, the less they are able to see around them.
Chapter 3: Architecture’s Perceptive Ability

How can architecture improve our understanding of place?
Elasticity can be defined as a new malleable inner horizon in fragmented boundaries of tension, condensation, and expansion that challenge thought. In the twenty-first century, the horizons of our fundamental experiences have expanded and continue to expand. We experience and think differently, therefore we feel differently. How elastic are our minds? How far can we stretch them?

- Steven Holl

Architecture is most clearly understood through the space it creates. The velocity with which we move through it influences experience in this space. Speed gives us a rapid understanding of the space, but developing an incomplete understanding. Certain things are forgotten between our senses and our perception. Slowness requires duration to frame our experience in space, by moving slower, we take in more of the stimuli that are around us. [11] We remember where we have been and we can discern more from each frame of our experience.

What new understandings can the experience of architecture provide?

In the architecture of velocity, slowness can provide or deny a total experience of the space. By engaging all of the sense, we gain a new level of holistic detail denied by individual senses. At the same time, this opportunity can be intentionally denied so we are left searching for the missing information. Some of the most influential architecture can break with our expectations of space, time, and velocity.

The same series of walls can also create more significance when a break in the series comes. The mind starts to become use to the blocked view, when suddenly the vista is revealed again.
A blimp slowly crossing the desert of the American Southwest, leaving a trail of time as it goes.

Which architects have explored similar ideas previously?
The velocity with which we move through it influences experience of the space. Speed through a space gives us a rapid understanding of the space but an understand is not always complete. Certain things are not transferred between our senses and our perception. By moving slower, we take in more of the stimuli that are around us. We remember where we have been and we can discern more from each frame of our experience.

What new understandings can the experience of architecture provide?

The Kiasama Museum of Contemporary Art by Steven Holl displays three movement in space. It intentionally denies its occupants that ability to establish an initial horizon inside the building. The horizon is normally how we establish where we are in a place. By not allowing us to establish place, movement is encourage in search of the horizon. Occupants must interact and experience the building in order to understand it. Space can be understood in three dimensions of movement. The slowness created by the search for the horizon is then contrasted by the speed of movement in search of it in the space. Most architectural spaces only engage one to two dimensions of movement at a time.
Left: Possibility to move in three axes of motion at one time, all while a point of reference in the space.

Right: Primary spaces in the building are constantly shift in all directions of the building. Occupation of each primary space gives a more comprehensive understanding of the whole building by understanding all areas of it.
Rather than denying us a horizon, the Salk Institute by Louis Kahn gives us the opposite - the endless horizon of the Pacific Ocean. We are slowly stripped of expectations and interference of the outside world as we make our way from the parking lot next to a busy street to the quiet mystery of the Institute's grounds.

Upon reaching the courtyard, one expects to reach a visual end but instead, the eye of the occupant continues the movement into the infinity where the rest of the body cannot. One slowly becomes aware of the absence of the sounds of the busy city around it. There is no longer the sound of the busy street, the only location known is at the edge of the infinite ocean. New stimuli gradually appear. Rushing water from the fountain and the breeze of the ocean enter audible understanding. Many minuet details engage the senses, which would otherwise be fully engaged maintaining the pace of daily life. This new focus lends itself well to a place for scientific research, where interferences of everyday life are left behind to focus on the large-scale issue of human health.
Right: Central courtyard of the Salk Institute. The horizon line appears to merge with the building itself.

Left: The pathway into the Salk Institute carries up farther and farther into the site. Once reaching the end of the pathway, occupants are confronted with the end of the primary path.
The Slow House by Diller + Scofidio is a camera for the outside world. Just as a camera requires commitment from our focus to one thing, the Slow House does also. It removes the occupant for the car, pressures them through the house, then places them at a framed view, like the veil of an old camera, removed from the context where the house rests. The genuine view of the ocean is complimented and challenged by the view from a video camera projecting the same image, yet it is controllable, free to move back and forth in time. Rival views create disconnect in our vision, forcing us to resolve it.

A vision is that place where memory and future look at each other without being afraid to speak.

Left: Montage describing the three primary perspectives in sequence from the car to the living room: the front door, the hall way, and the living room.

Right: Diller + Scofidio diagram of the house showing how the arc of the house is formed by the cone of a perspective view.
Left: Diagrammatic Model of the Slow House. The single perspective is the driving force for the design of the house. The chimney (Right tower) and video camera mount (Left Tower) appear as television antennas.

Bottom: Montage created by Liz Diller showing the one-point perspective view onto the ocean. The TV is located in the center of the view, displaying a contrasting image.

Right: Upper and lower floor plans of the Slow House. The curvilinear layout of the house allows for a gradual expansion of space from the road to the ocean.
Chapter 5: A Place Lost to Speed

Where is a place that gains a new reverence for the past?
The American landscape is a vast carpet. Travel is a way to visually experience and understand it. Byways of America wind throughout the country, offering countless new opportunities to slow and take in surroundings. The popularity of the automobile grew out of this desire to explore the American landscape. It was here where the speed of the unobstructed path could break free. It is here where the slowness of certain breaks, where various parts of the country could be experienced.

...You cannot appreciate the destination without knowing the starting point; you cannot revel in simplicity unless you remember the alternatives.

-David Eagleman [15]

The Interstate highway completely transformed automotive travel in America. It is based on efficiency in order to transport its users from one point to another, as quickly as possible. It transformed the country into a series of nodes within the massive road network of the highway. The byways are slowly lost to the growth of the interstate.

Route 66 is considered America's Main Street and the mother road. It was the first major connection between Chicago and Los Angeles. It exemplifies the early American automotive passion for exploration. Many towns relied on the route for economic life, catering to endless travelers using the road. [16]
Seligman, Arizona is the site where Route 66 preservation began and it is one of the few places that both the interstate (I-40) and Route 66 still exist together. It lies between destinations like Las Vegas, Nevada, Phoenix, Arizona, and the Grand Canyon. It was one of the many destinations on tours through Route 66, but now it has become a stop for interstate travelers en route to elsewhere. Seligman is one of the few nodes along Route 66 that survived the development of the interstate.\cite{17}

Can architecture revive the slowness that once made this a thriving town?
Left: Aerial view @ 50’.

Right: Site Section @ 1:7500. Each form of transportation exists on a different topographic level than the others.

Interstate 40

Railroad Tracks

Historic Route 66

Seligman Airport
An image from Life Magazine at the Bonneville Salt Flats in Utah. Rollie Free sets the land speed record on a motorcycle in 1948.[18] [19]
Casually yet eagerly this American people has spun away the summer length of day, in cars, along the great road; the lifted dark brings them down like sea birds, wherever night finds them, to rest along their line of flight. The shaky truck is quiet now, and the slick sedan garnished with emblems of speed.

—James Agee

Travelers focus on the past and the future, with the present slipping into the unconscious. Miles of road seem to blur together in the memory of a certain journey. Changes arrive so gradually that time and place lose their context in the sequence. The traveler continues in this state until arrival at the intended destination, or something is thrown into the present which catches one’s attention. It can be as subtle as an interesting road sign, or as gradual the growing fatigue of traveling itself.

...He is caught in a fragment of time cut off from both the past and the future; he is wrenched from the continuity of time; he is outside time; in other words, he is in a state of ecstasy; in that state he is unaware of his age, his wife, his children his worries.

—Milan Kundera

Granted, roadways are a critical part of the United States. However, most of them have no features to stand out for us to slow down and notice. Instead, we speed through these [no] places, oblivious to them all together. Here, changes only occur at the off ramps of the interstate, where one can take a break along a journey. Pace is slowed, even if just for an instant, to locate oneself in time and place.

Roadside programs exist as modern day mirages in the infinity of our road networks. They seem so out of place on sites that their authenticity could be doubted. Once a traveler stops at this obviously staged place, they can take-in their surroundings.

It is not the object of the story to convey a happening per se, which is the purpose of information; rather, it embeds it in the life of the story teller in order to pass it on as experience to those listening. It thus bears the marks of the story teller much as the earthen vessel bears the mark of the potter’s hand.

—Beatriz Colomina
Where is a place that gains from a new reverence for the past?
The traveler is always in motion until now. No longer concerned with races of the daily life, but rather the serene countryside.

Rather than deciphering a single image from a sequence of many through slowness, this architecture can be understood through a single frame, the roadside exit, transformed into a sequence of experience.

Architecture takes form through a camera obscura, focusing the traveler on disconnect between the historic byway now forgotten and the placeless interstate that contains life.

Every true piece of architecture relocates man in the world and casts some new light on man’s existential enigma.

-Juhani Pallasmaa[22]

Resting accommodations are valued in places like this. The site allows for time to observe the interstitial zone around the two roadways and the small town that relies on them for survival. The motel is the accommodation of happenstance. No traveler arrives at this motel as a destination, but rather, a place to rest and recover, in progress to the intended destination.

Everything is composed, confected, artificial, everything is staged, nothing is straightforward, or in other words, everything is art; in this case: the art of prolonging the suspense, better yet: the art of staying as long as possible in a state of arousal.

-Milan Kundera[23]

This motel frames an opportunity to highlight the plight of the old byway, which the traveler hasn’t noticed before, and the new highway he forgot he ever used. Other people are also here, finding similar discoveries. Motels like this one cause us to reevaluate our surroundings. This Motel becomes the “second image” of Eagleman’s Test. It impacts the traveler because it is new and it is temporary.
HISTORY OF THE
Motel

[Proposed] - Motel to Frame the Place Around it

[Highway Hotel] - City Hotel on the Outskirts

[Two Story Motel] - More Rooms on the Same Footprint

[Motel] - Direct Parking and Direct Access

[Motor Cottage] - Access for Car

[Motor Cabin] - Rooms Provided

[Motor Camp Ground] - First Step
Motel as a Home
Away From Home

- RELAX [decoration]
- CONNECTION TO THE WORLD [TV]
- REFRESHMENT [bathroom]
- REST [bed]
**Individual Room** - 300 ft² - 8700 ft² total - This is the major of the program in the new motel. The set of rooms can be manipulated through separations between normally adjoining room, creating a series of framed views. The framed views capture various items in the landscape and the cars in motion around the motel. There are 29 rooms, just has film has 29 frames in a second. The motel blurs the line between architecture and film.

**Lobby and Check in desk** - 2000 ft² - A central point where everyone must visit at some point in their stay. It offers the chance for new interactions between all of the guests in the motel at any given time. The lobby also acts as the main organizing feature for the motel.

**Swimming Pool** - 1200 ft² - An oasis in the desert, the pool is the most unnatural item in the entire program. Just like the lobby, it can act as a social gathering point and as an organizing feature. [24]

**Parking Lot** - 7000 ft² - Cars are what represent guests at motels. Guests can remain in their rooms, out of sight, but their cars act as an identity for who is staying there. The car is what made the motel, as a result of a demand for better car access in lodging.

**Restaurant** - 3000 ft² - Motels are normally very basic forms of lodging but occasionally more elaborate program can be integrated as well. The restaurant can be used by all of the guests of the motel and residents of Seligman. This breaks down the barrier between travelers and residents.
Left: Watercolor site scale pathway diagrams examining ways of attaching to and continuing the off-ramp.
Left: Initial plan and section of the motel room. The smoke from the chimney and the steam from the shower leave traces of time.

Right: Further exploration of site circulation.
Left: First abstract sequence of movement as the traveler experiences the site.
Left: Site plan with early exploration of public program and courtyards of the motel rooms.

Right: Documentation of key moments in the site.
First arriving at the site, seeing the Drive-In Theater and other public program in the distance.

After circling the first Off/Ramp of the site, the traveler is greeted with the first site of other, both residents and travelers, in the Cafe and Drive-In Diner.
Continuing to the second Off-Ramp, the Drive-In Theater juxtaposes the traveler’s movement with the movement on the screen.

Once the traveler has been assigned a room, they continue through the last Off-Ramp, eventually coming to a complete stop upon finding the correct room.

Finally at the room, the traveler can finally stop after a long day of travel. Once rested, they may continue onto their intended destination.
PLANS AND SECTIONS [changing scale]

VIDEO SEQUENCE [projection through car windshield]

PHYSICAL MODEL [Plexiglas massing model]

MONTAGES [sequence of procession]

FINAL PRESENTATION LAYOUT
Connection between Route 66 and I-40

The implied path between the exit ramp of I-40 and the exit of the By-Pass onto Route 66 forms a 60 degree angle. The datum line bounds the site on one side and the existing bypass bounds it on the other side.

Jeffersonian Grid

Extension of the Grid

The Jeffersonian grid, a device used for the formation of many frontier cities during America’s expansion westward, is extended into the landscape between the Off-Ramp and the Interstate. It becomes the overall constraints that buildings either attach to or break from.

Program

Public program surrounded by Private

The Public program is located in the middle of the site in order to draw all in, from there, more private program radiates outward.

Parti

Interlocking Velocities

The Traveler and the Resident are both slowed down to a point of stasis through the use of changing velocities.
A Disjunction Between the Earth and the Sky

The roof of the Off-Ramp Motel is made of folded Cor-Ten Steel with a punch in the center to allow the chimney through the roof. Other than fenestration, it is the only thing to stand out in the skyline to demarcate the horizon line. It also acts as a way to engulf the traveler into the motel room.

A Visual Connection and Physical Shift

The punched window in the front of the facade acts as a constant view to the car, which is the identity of each traveler to the others. The narrow shape allows for a reference to other cars in the nearby vicinity.

Signals of Time

The chimney is transformed into the service area of each room. Rather than being located at the back of the room like in most motels, it is placed in the center to amplify circulation in the space. It features two major elements, the fireplace and the bathroom. Each of these spaces leaves traces of time by their uses. The fireplace emits a smoke trail, signifying occupation and stasis. The bathroom ventilates the steam of the shower, showing the preparation for a day of travel ahead or a time for rest after a long day.

From Speed to Slowness

Just as the Off-Ramp reorients a person from a singular focus of speed, the motel room pulls the traveler in from the continuous sequence of travel, slowing them down to the point of stasis.
SECTION 001

DINER AND CAFE
The first sight seen after decelerating into the level below the surrounding context. The cafe is the first chance for the traveler to see other travelers and residents outside of their cars.

DRIVE-IN THEATER
Standing out from the stars and headlights, the Drive-In Theater reveals its purpose for miles around and it acts as a billboard for the motel. The motion of the travelers through the site is juxtaposed to the movement of the images on the screen. The speaker boxes rise out of the ground as folded Cor-Ten pieces.

MOTEL ROOM
The band of rooms sits on the outer edge of the site, requiring each traveler to experience the whole site before reaching the desired room, offering many chances for interaction. Each motel room looks inward at the public program of the site.
DRIVE-IN THEATER
The movie screen not only becomes a source of entertainment for those parked in the lot, but also from those staying in the motel rooms, looking out onto the scene.

GYM
Providing program that is useful for both the residents of the town and the travelers just stopping along the way to their intended destinations. People who may arrive here with the intention of only exercise can begin to explore the other public program and interact with other individuals.

CHANGING ROOM AND POOL
Changing rooms act as a final filter before reaching the pool itself. Once at the pool, the most public piece of program, occupants have many chances for interactions with others, both residents and travelers.
Finally arriving at the section of motel rooms, the traveler, weary from the day’s travels must find their assigned room. While driving through the outer edge of the sight, all of its occupants can be seen in one way or another.

In line with the initial row of motel rooms, the Check-In and Lobby are the last step before arrival at the desired motel room. The Inn Keeper’s room is visible from above on the By-Pass, one of the two spaces that are always occupied [the other being the cafe].
Motel Room
Each motel room acts as a point of reflection, with views of the site and the massive context juxtaposed to each other.

Pool
Visible from all rooms and it acts as the edge of a channel for heavy rains, leading the water to a wash basin just south of the site.

Lounge
A gathering point for all with views of setting sun. The horizon is occupied by the motel rooms, in turn looking back at the lounge.


Tschumi, Bernard, *The Manhattan Transcripts*.


