Connecting Past, Present, and Future Leading to Sustainable Energy:
The Transition to a Better Future with Tesla

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Abstract

Connecting Past, Present, and Future Leading to Sustainable Energy: The Transition to a Better Future with Tesla

Tesla: To Produce, Store, and Utilize exhibition (the Tesla exhibition) will promote Tesla, Inc. (“Tesla”) brand and their mission to accelerate the world’s transition to sustainable energy so that people can make informed decisions for a better future.

Many people know Tesla as an electronic vehicle company. The young successful automaker’s aspiration did not stop at cars with a battery but has been sprouting to general transportation infrastructures and the energy industry as a whole, seeking to change and shape the way that society uses energy by bringing to the market sustainable energy as a commodity. Tesla already has designed and deployed distributed energy resources to communities for clean, resilient and affordable power.¹ The innovative company is driving to the better future with sustainable energy.

The exhibition will be held at the McMillan Filtration Site, Washington D.C. The McMillan site is located in the city and is the perfect place to stimulate senses and evoke curiosity by taking the visitor underground to engage with the topic of energy generation and consumption. The design juxtaposition will create a dialogue between the old framework and the new, forward-looking methods and products.

The design goals of the Tesla exhibition are: To create an engaging, sensory and stimulating experience, visitors can navigate themselves in the space, adding a sense of exploration, discovery to the exhibition, employing the attributes of the site to create a dramatic effect.

To deliver the message “To replace harmful fossil fuel, there is a transition to sustainable energy; Tesla is one of the companies that leads the transition,” there are interpretive goals to stick to: Raise awareness about the problems of fossil fuel, encourage sustainable energy, and promote Tesla’s mission and their projects to build a better future.

The Tesla exhibition is conceptually divided into three sections: Past, Present, and Future. Visitors start their journey in Tesloop on their way to McMillan site and explore the ground and under ground cave. After going through a transitional tunnel, visitors learn about fossil fuel and sustainable energy at three galleries where the two are introduced and compared. Express Lane and Living Room enhance visitor experience and the exhibition becomes a preview of the future of energy in the hidden underground cells.
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Introduction

I have always found cars interesting. I am not a car enthusiast, but I enjoy looking at brand new cars with well-thought-out design and smart options. I see the two tons of heavy machinery as the outcome of the most recent technical achievement with much pursued aesthetic quality. I have grown an interest in Tesla brand since I first saw their Model S a few years ago. It was the first electric car that I had ever seen, and its concept and design was quite a shock to me. And just last summer, Tesla surprised me again. I happened to pass by a Tesla store in a shopping mall, and I spotted a sleek white object on the window. It was my first meeting with Tesla Powerwall. When I walked in to find out more, one of the Tesla staff introduced me to their energy expert who provided information about not only Tesla’s new energy products but also their new mission and goal. I was deeply impressed by the former automaker’s innovative thinking, and this perspective-changing experience led me to study this brand and their ideas for the future.

Tesla, Inc. is an American automaker, energy storage company, and solar panel manufacturer based in California. Martin Eberhard and Marc Tarpenning founded the company in 2003. After many years of great financial investments and working as the Chairman of the Board, Elon Musk became CEO of the company in 2008\(^2\), and since then

he has raised both the brand value and its perspective. Peter Thiel, founder of Paypal and Tesla investor, state that the key to Tesla’s success is the complex structure. According to the investor, Tesla is a company that creates many innovative pieces that fit and work together rather than coming up with a massive breakthrough. Integrating all the pieces of new marketing, new production, new sales, as well as new technologies is what makes the company different from its competitors. The high-performance electric vehicle maker has announced their new mission statement in 2016: “to accelerate the world’s transition to sustainable energy.”

The design of the Tesla exhibition is based on the thesis statement:

*This exhibition is to promote Tesla brand and their mission to accelerate the world’s transition to sustainable energy.* Visitors learn about new ways to produce, store, and utilize sustainable energy through their experience with Tesla. It will help visitors to make better decisions for the future.

The exhibition will be a preview of the future of energy in hidden underground cells where classroom, show booth, theater, living room, garden, and more are combined.

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Tesla

Tesla has expanded their product range widely since they first produced the Roadster, the first automobile to use a lithium-ion battery, in 2005. Tesla’s Model S was the world’s best-selling plug-in passenger vehicle in 2015 and 2016. Following Model S’ success, their first SUV Model X and the economic Model 3 also get good sales records and customer reviews. The automaker’s achievements seem to come close to their goal, but being the only electronic car company is not what Tesla wants to be. Tesla made their patent open source in 2014, and here’s why:

“At best, the large automakers are producing electric cars with limited range in limited volume. Some produce no zero emission cars at all.

Given that annual new vehicle production is approaching 100 million per year and the global fleet is approximately 2 billion cars, it is impossible for Tesla to build electric cars fast enough to address the carbon crisis. By the same token, it means the market is enormous. Our true competition is not the small trickle of non-

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Tesla electric cars being produced, but rather the enormous flood of gasoline cars pouring out of the world’s factories every day. We believe that Tesla, other companies making electric cars, and the world would all benefit from a common, rapidly-evolving technology platform.”

This simple but huge gesture shows Tesla’s vision to grow together than being the only one. They believe that sharing their patent with public and their competitors will help to develop EV markets and decrease the number of gasoline cars on earth after all.

The energy products were developed from the same vision. Elon Musk acknowledges the serious climate change that the world is facing and said it's "within the power of humanity" to change the way we produce and use power. The CEO has always had a dream of a complete unified, clean power solution, and Tesla has almost achieved it with their new energy products: Solar Panel, Powerwall, Solar Roof, and Powerpack. The Tesla Powerwall, a wall-mounted lithium-ion electric battery for homes and small businesses, and the Tesla Powerpack, a heftier version of the same core product designed for utility-scale use, were introduced in 2015. A Powerwall battery

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8 Hulac, Benjamin, ClimateWire. "Tesla’s Elon Musk Unveils Solar Batteries for Homes and Small Businesses." Scientific American., last modified May 1, accessed Nov 17,
can get power from any solar panel or the Tesla Solar Roof and provide sustainable energy to any home. The same idea applies to large-scale projects, and the Kauaʻi Island project is one of them. Kauaʻi Island Utility Cooperative (KIUC) in Hawaii, that serves over 30,000 customers on the remote island, has significant solar power capacity, but they have to run diesel generators when the sun is not shining. With the new Tesla Powerpacks, they will be able to achieve 100% renewables more frequently. Tesla and KIUC expect that it will reduce the use of fossil fuels by approximately 1.6 million gallons per year to 11 cents per kWh or third of the cost of electricity generated through burning diesel.9 Besides this recently commissioned project, Tesla has deployed its grid-scale Powerpacks on five islands: Taʻu in American Samoa, Monolo island in Fiji, and Oahu islands in Hawaii since Nov 2016.10 Right now, Tesla is hardly the only company targeting the island microgrid market hoping it brings light to every corner of the world and changes the world’s energy pattern.

The Tesla exhibit benefits both the brand and visitors. Educating and communicating with people about their mission and products are what Tesla aims to do with their stores. Also, this exhibit featuring Tesla products is an excellent chance to promote their newly launched energy products since the brand does not pay for

advertisement believing in good products selling themselves. According to AdAge.com’s analysis, Tesla had no measured-media spending in 2016\textsuperscript{11}, and it has been that way always. Media coverage and word of mouth have been the good free-advertisements for their sales, but with their new mission to accelerate the world’s transition, an exhibition will be more effective and powerful method to come to their audience. This exhibit carries their progressive thinking and finds a way to deliver information innovatively.

Site

The exhibition will be a traveling show to serve and educate more audience in different cities in the U.S. hopefully expanding to the world. To decide the traveling show’s initial location, existing Tesla stores were studied first. Most of the Tesla stores are located in a busy shopping mall or city centers to approach people including those who are not interested in cars or Tesla brand. Todd Maron, Tesla’s general council, explains, “Electric cars are new technology, and Tesla stores need to be both education centers and conveniently located.”\textsuperscript{12} Since the Tesla exhibition and Tesla stores share same goals, it seemed like a good idea to follow Tesla’s geological strategy. Shopping malls and downtowns of D.C. Metro area were considered for the exhibition. After enough exploration, it came to a conclusion that it is difficult to deliver a different


\textsuperscript{12} Fehrenbacher, Katie. “7 Reasons Why Tesla Insists on Selling its Own Cars.” Fortune., last modified Jan 19, accessed Sep 13, 2017, \url{http://fortune.com/2016/01/19/why-tesla-sells-directly/}.
experience than the stores do if the exhibition is located in the similar location. Also, unexpected places would better convey Tesla’s inspiring and innovative culture. Sites that were researched again are historic or abandoned places creating contrast with the high-tech topic and evoke wonder and curiosity. Among several historic and/or abandoned site options, the most attractive McMillan Sand Filtration Site is chosen.

McMillan Sand Filtration Site

The McMillan Park Reservoir Historic Landmark ("The McMillan site") consists of the complex of buildings and structures that were historically used for water purification, as well as the designed landscape that transformed the complex into McMillan Park.\(^\text{13}\) EHT Traceries, Inc. and Robert Silman Associates have done assessment and evaluation for the site’s commercial and residential development, and their reports will be the main resource for the site research.

The McMillan Site itself has a trapezoidal footprint defined by First Street, NW, to the west, Michigan Avenue, NW, to the north, North Capitol Street to the east, and Channing Street, NW, to the south (Fig 1). The McMillan Site features two paved service courts that divide the site into a tripartite configuration of expansive open spaces (Fig 2). These grassy open spaces correspond to the roofs of the twenty filter beds that have been covered by a layer of fill.\(^\text{14}\) On the ground, there are a total of twenty sand bins,

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\(^\text{14}\) Ibid
one for each filter bed, four regulator houses, and twelve sand washers.\footnote{Ibid.} The site features twenty concrete filter beds. One filter bed is approximately one acre in area and independent of the other filter beds and has its own entrance that opens into the service courts. \footnote{EHT Traceries, Inc. 2010. McMillan Slow Sand Filtration Plant: Historic Preservation Report for the Proposed Redevelopment of the McMillan Slow Sand Filtration Plant.}


The McMillan site is a hidden gem with a plenty of opportunities. Before it was fenced and locked a couple of years ago, many people found the old government facility as an urban exploration site. Some people call the site Washington D.C.’s Stonehenge.
because of the row concrete structure and its massive size. The McMillan site is located in the city close to popular neighborhoods which is the perfect place to stimulate senses and evoke curiosity. Visitors will be going underground to find a huge space filled with concrete columns. Entering down and exiting up will be the start and end points of their journey. The old structure will be representing the past and history as well as creating a great contrast with the content.

The inspiring site comes with a few challenges: no public access allowed due to safety issues and security reasons, old and damaged construction, and space limiting columns. The site has been closed for over 30 years and recently prohibited public access. Since there is no way to go into, the research has to depend mainly on limited resources and references. It is difficult to design the space that is old and damaged especially with no site research, but there are site reports available. The columns are site elements that must be considered with design strategies. The ceiling height is 12 feet which is pretty high, but due to the columns spaced every 14 feet, a sight is limited (Fig 3). To overcome the limited sight and space without removing any existing space elements, partitions and decorative structures will be applied.
Audience

The exhibition’s target audience will be, but not limited to, young adults and middle-aged adults who would have relatively more interest in sustainable energy and new technologies especially around a home. Tesla has a relatively small customer demographic in gender and income, but it has started to change. According to Edmunds.com’s 2013 report, 83.9% of Tesla Model S’ customer is male, 77.3% has income over $100,000. The number of their millennial customers

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increased from 6% to 10%,\textsuperscript{18} and with their new Model 3, more affordable electronic sedan, Tesla’s customers get younger and have more different incomes.

For an interpretive purpose, the audience is divided into four groups depending on their familiarity with Tesla rather than their age or social status. The four groups are Tesla Enthusiasts, Tesla Users, Tesla Acquaintance, and Tesla Strangers. Tesla Enthusiasts may or may not own any Tesla products but keep up with Tesla news and social media with enthusiasm. The exhibition would not have anything brand new to them, but their knowledge will be affirmed as enjoying Tesla interactives and ‘wow moments.’ Tesla Users are people who own one or more Tesla products. They might not be as enthusiastic as Tesla Enthusiasts, but they have mutual interests in Tesla and environments. Throughout the exhibition, Tesla Users will gain profound information about the company and the products, and feel proud to be Tesla user. Many visitors will fall into the Tesla Acquaintance group; these people know the company and have heard some news about Tesla, but not quite sure its current mission and projects. They will leave the exhibition with a better understanding of the company thinking to make better decisions for the future. Tesla Strangers have or have not heard of Tesla, and even if they have, only know it as a car company. This group will be most difficult to attract to the exhibition, but the fun and educative experience and the convenient location will help bring them inside. After the exhibition, they will leave with a good

understanding of Tesla and sustainable energy. The main purpose of this exhibition is education and not sales. It will be designed to provide information about sustainable energy and Tesla’s effort to the groups of people with different backgrounds and knowledge.
Exhibition Design and Strategies

Design Strategies

The design goals of the Tesla exhibition are: To create an engaging, sensory and stimulating experience, visitors can navigate themselves in the space, adding a sense of exploration, discovery to the exhibition, employing the attributes of the site to create a dramatic effect.

To create a stimulating and thought-provoking experience, a design language of juxtaposition generates an ongoing dialog between old and new systems, forward-looking methodologies and archaic frameworks. For example, contrasting materials, such as sleek acrylic vs. raw concrete, sheer fabric vs. solid surface, will be applied. Inside the abandoned concrete cave, visitors will see the latest technology achievements and the future of energy.

To allow visitors to navigate themselves through the forest of pillars, the corridor throughout the exhibit hall will perform as a root that visitors can walk in and out of the galleries. This express lane also saves time if you need to cut through to a specific gallery or the exit. Translucent partitions and color/light coding will also help visitors to navigate themselves. The partitions are sheer fabric wrapping a steel structure between the existing pillars; it is another metaphor for contrasting times and ideas as well as a subtle window to the next room.

To create a dramatic effect using attributes of the site, polygonal rock structure will be installed throughout the space. This rock structure represents the origin, history,
and nature but its high-gloss surface will signify the present, future, modern, and manufactured. The polygonal rock is a natural element with a manmade touch, and it is all around us. This strange combination, spread from one end to the other, echoes the site and the topic, sustainable energy.

Narrative Device

The polygonal rock structure echoes the geology of the space. The rock serves as a symbol of nature/manufactured and past/future. As flowing from the beginning to end, the structure also works as a vein of the whole space and the exhibition. It shows how the past, present, and future are related and affect each other.

Fig 4. Space Layout Sketched
The entrance/exploration area left raw and untouched will represent the past and history. In the underground sea of light and darkness, visitors get to explore the historic site, but it is more than an interesting urban activity. Having to go through this old and raw space means that you cannot go to a future without the past. You cannot neglect the past and expect to see a bright future. The untouched exploration area will still have the rock structure in some corners which represents the vein again, and also it is a hint leading to the future that they are about to see.

The tunnel between the exploration area and the exhibition hall will be a physical and metaphorical transition. It physically connects the two spaces, and also the darkest and most narrow space represents the present with the fossil fuel and a near future with the energy crisis.

About the time visitors feel the urge to learn more, they exit the tunnel and meet the future, the main exhibit hall. It is where they learn about the past when mostly depended on fossil fuel and its consequences and energy crises that have improved and developed in the past. They will also learn about sustainable energy and latest technologies which help them to make informed decisions for a better future.

Interpretive Strategies and Exhibition Content

The message of the Tesla exhibition is “To replace harmful fossil fuel, there is a transition to sustainable energy; Tesla is one of the companies that leads the transition.” To deliver this message, there are interpretive goals to stick to: Raise awareness about
the problems of fossil fuel, encourage sustainable energy, and promote Tesla’s mission and their projects to build a better future.

To raise awareness and encourage sustainable energy effectively, the exhibition is divided into three sections, ‘produce,’ ‘store,’ and ‘utilize.’ Each section compares fossil fuel and sustainable energy by showing the source, issues, and its consequences. For instance, the Produce section demonstrates where and how the fossil fuel is produced, how it has caused conflicts and wars between countries, and that we are running out of it. Visitors will learn that it is necessary to reduce the use of fossil fuel and feel need to learn about the better substitute. Then they get to see how sustainable energy can be produced and even individuals can easily take advantage of it as well with the latest energy technologies. It will feature Tesla’s solar generation system such as solar panels and Solar Roof, and visitors get to generate energy with the interactives. The energy they generate with the interactives are stored and utilized to power the exhibition, and visitors can see the numbers on onsite screens. The other two sections will carry similar strategies as the Produce section. Sustainable energy will be introduced and experienced with Tesla products and their global projects so visitors learn what options they have while get familiarized with Tesla.

The Living Room at the end of the exhibit hall will strengthen the visitor experience. It is where they can sit down, rest, and enjoy the various Tesla interactives. The Living Room provides group interactives and a community art activity while most of the interactives in the galleries are individual experiences. The group experiences
stimulate a sense of community and encourage making a better decision for the whole. Visitors can also track all the energy they produced, stored, and utilized at the exhibition hall on the screen.

Most importantly, *Tesla: To Produce, Store, and Utilize* is fully powered by sustainable energy. Tesla’s solar panels and Powerwalls will be installed on the ground of the McMillan filtration site. There is more than enough installation space to provide the solar power for the whole exhibition, and Powerwalls can store and utilize the energy under any weather.

Design Narrative

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*Fig 5. First Half Section of Site Section View*
Visitors see a Tesloop sign outside a metro station. The Tesla’s new transportation service takes visitors to the exhibition site in style (Fig 5). The first thing visitors see at the site is waves of solar panel. Visitors take a walk in the glass garden that provides energy for the show. Then visitors enter the exhibition through the North portal.

Fig 6. Exhibition Space Layout

The exhibition space is conceptually divided into three sections: Past, Present, and Future (Fig 6). The Past section includes the entrance and Exploration area that are mostly left original and untouched. The subtle signages provide information about the
historic site, and the indirect lights toward the vaulted ceiling highlight the architecture. Visitors will explore the hidden historic site as they walk through the forest of concrete columns until they meet an entrance to a transition.

The Tunnel represents the past; the screens from floor to ceiling play videos of the history of energy usage. As visitors walk through the tunnel, they learn the past and present and prepare themselves for the future.

The Future Section includes Express Lane, three exhibit galleries and Living Room. The refreshing and transitional express lane is a resting point, a short cut, and a garden with a pool. Visitors can walk in and out of galleries and use this space as a root. It also lets you go directly to Living Room or exit in case you need it. This express garden has open manholes allowing natural light (and some greens) in and a pool in the center reflecting everything (Fig 7). There are benches around the pool between columns where visitors can sit and rest or enjoy the refreshing atmosphere (Fig 8). Cove lights around the pool rim and under the benches do not overwhelm the gallery entrances but provide good mood light. The directory map and event info are available on touch screen here to help visitors to navigate and keep update.
Fig 7. View to Express Lane/ Pool

Fig 8. View to Express Lane/ Pool
The first gallery is Produce. It compares the production of fossil fuel and sustainable energy. Visitors walk along the curved wall with bold graphics then meet a dimmed gallery entrance (Fig 9). It starts with basic information about fossil fuel and sustainable energy and moves on to fossil fuel. As visitors walk into sustainable energy section, the room is fully lit and filled with glossy white surfaces (Fig 10). In the center of the room, a solar panel kinetic art installation takes everyone’s sight. It shows how solar panel can be of any shape and any material. Behind the translucent walls, visitors get to play and experience the production of solar energy, wind power, and hydropower with interactives.

![Fig 9. View to Produce Gallery Entrance](image-url)
This fully lit second gallery reminds of trade shows. Store gallery has the most Tesla products displayed including Powerwall, lithium-ion battery, and a red Model S (Fig 11). The interactives here let visitors to estimate their Powerwall needs and custom design their home energy (Fig 12). The long curved table in the back demos storage and transportation of fossil fuel and their negative effects on human and earth. Translucent fabric wall behind the table goes with the dark mood.
Fig 11. View to Store Gallery Entrance

Fig 12. View to Store Gallery inside
Utilize, the last gallery, compares the utilization of fossil fuel and sustainable energy and tells stories about people and their experience with renewable energy sources. It has dramatic lighting through space for multiple screens (Fig 13). Theater plays Tesla’s case study videos while translucent partition behind creating a mysterious atmosphere (Fig 14).

Fig 13. View to Utilize Gallery Entrance
Living Room is the only space in the exhibition filled with natural light and glossy Rock structure (Fig 15). It provides seating and Tesla Brew cafe service to tired visitors. Individual and group interactives help visitors to refresh their experience at the galleries and enhance their lessons. Communal tables and a presentation stage encourage communication and discussion. Visitors with questions or inquiries can be helped at Tesla desk. Live Tesloop monitor informs visitors on wait time for their rides to metro stations and parking lots.
Fig 15. View to Living Room
Conclusion

_Tesla: To Produce, Store, and Utilize_ promotes Tesla brand and their mission so people can make informed decisions for a better, more sustainable future. The barely-advertised company can promote their newly launched energy products and upcoming projects while visitors learn about the cost and waste of traditional energy resources and the benefits of sustainable energy.

The design goals of the Tesla exhibition are: To create an engaging, sensory and stimulating experience, visitors can navigate themselves in the space, adding a sense of exploration, discovery to the exhibition, employing the attributes of the site to create a dramatic effect. To create a stimulating and thought-provoking experience, a design language of juxtaposition generates an ongoing dialog between old and new systems, forward-looking methodologies and archaic frameworks. To allow visitors to navigate themselves through the forest of pillars, the corridor throughout the exhibit hall performs as a root that visitors can walk in and out of the galleries. To create a dramatic effect using attributes of the site, polygonal rock structure is installed throughout the space. As flowing from the beginning to end, the structure also works as a vein of the whole space and the exhibition.

To deliver the message "To replace harmful fossil fuel, there is a transition to sustainable energy; Tesla is one of the companies that leads the transition,” there are interpretive goals to stick to: Raise awareness about the problems of fossil fuel, encourage sustainable energy, and promote Tesla’s mission and their projects to build a
better future. To raise awareness and encourage sustainable energy effectively, the
exhibition is divided into three sections, ‘produce,’ ‘store,’ and ‘utilize.’ Each section
compares fossil fuel and sustainable energy by showing the source, issues, and its
consequences. The Living Room at the end of the exhibit hall strengthens the visitor
experience. It is where they can sit down, rest, and enjoy the various Tesla interactives.
Most importantly, *Tesla: To Produce, Store, and Utilize* is fully powered with sustainable
energy. While visitors enjoy strolling in the waves of curved solar panels installed above
ground in the McMillan site, they produce power for the exhibition and store to
Powerpacks so that everything runs sound and smooth no matter what kind of weather
it is in the city.

The experience started at a metro station or a parking lot with Tesloop service,
go through an exploration, lessons, activities, and discussion, and then let visitors
leaving with better knowledge and much favor in both sustainable energy and Tesla
brand. This exhibition will hopefully become a traveling show, and spread Tesla mission
to the world for a better future together.
Bibliography


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Appendix I Precedents

There are many projects explored to develop the Tesla exhibition, and some of them were studied more for their similarity in location, structure, audience, and the type of the exhibition.

Precedent Study (1)

THE CISTERNS MUSEUM (Copenhagen, Denmark) / Exhibition Site


The Cisterns Museum in Copenhagen, Denmark is an old water reservoir built in 1859. The dripstone cave is now a museum/event venue that holds exhibition and
events inspired by the architecture of the venue. The dark underground concrete space looks similar to the underground filter beds of the McMillan Filtration site. This raw concrete underground structure provides plenty of visitor reviews as a popular landmark that the Tesla exhibition at the McMillan site can refer to. According to the reviews on TripAdvisor.com, 75% of the visitor found the trip to the underground cave excellent or very good. It seems like many people enjoyed the eerie trip to the abandoned historic site; although some did not find the dark and cold place interesting or worth traveling. Also, some people pointed out that it is difficult to find the place at night because it is in the middle of a park and there is not enough way-finding system. The visitor reviews of the site help me anticipating how visitors at the Tesla exhibition would experience in the McMillan site. I am sure that many people find the site interesting as I am, but there will be inconvenience accompanied to this unique space. I will make sure the visitors have no problem getting into and out of the exhibition and feel it was worth traveling.

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Precedent Study (2)

TESLA’S TINY HOUSE (ACROSS AUSTRALIA, AUG 2017-PRESENT) / Exhibition Topic

This precedent was chosen for the topic. Tesla’s tiny house has been driving across Australia since last Summer. The literally traveling exhibition is powered by 100% renewable energy using Tesla’s solar panels and the PowerWall installed on the house.

It brings Tesla to people and provides an experience how Powerwall and solar can seamlessly integrate to power an entire home. The mobile unit educates the public on how to be self-sufficient in producing sustainable electrical power for their homes. The

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tiny house contains a Tesla mobile design studio and configurator to help homeowners configure a solar plus energy storage system for their home.\textsuperscript{22}

The exhibition provides a one-on-one educational experience which Tesla aims to do with their stores. Also, this mobile exhibition makes an issue and promotes itself while featuring their own products. Tesla also made the traveling show’s location and schedule available online so people can look it up and follow anytime they want. I find this idea very convenient making a traveling show more approachable. It inspires me to add more features like live-update how much energy the Tesla exhibition has generated, spent, and stored. Lastly, the mobile unit is made with locally sourced, chemical-free, sustainable timber.\textsuperscript{23} It shows that Tesla applies their mission to all elements, and I would like to do the same with my exhibition.


Intel’s booth for CES in 2015 was designed to bring Intel’s bold and unexpected shift. The booth was created around Intel’s longstanding rules for CES—that people eat with their eyes, that a booth needs to be open/inviting and that there needs to be kinetic interactivity.24 The booth had six demo zones, each defined by a futuristic tree- or beacon, as Intel called them (Fig #). The beacons and the brand ambassadors assign in each zones are pretty impressive, but what interested me the most was the booth’s living room. The booth has a center area with a stage and bleachers for discussions.

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Around the stage, there are seating areas and a social media ribbon displaying Intel content and trending keywords. I love this living room idea where people get together and exchange their experience and ideas. It is where an individual experience becomes a group experience. Having a park-like area where visitors can just sit and rest their mind or play with interactives sounds great for the Tesla exhibition where the footprint is massive like CES. It was also impressive that Intel tried and succeeded to keep it as open as possible where most booths at CES have too much going on and ended up creating a maze. I will try to make the Tesla exhibition simple and open so visitors rather feel like they are exploring than lost.
The five-day seminar hosted by General Electric was held in the Andrew W. Mellon Auditorium in Washington, D.C. in 2012. The space combined a central presentation space with subject-specific exhibit islands focused on four aspects of GE’s American-focused businesses.25

In the center of the space, there are white fabric structures to shape the different functional areas with luminous projection and colored lighting (Fig). I like how they put this enormous and colorful abstract structure that could be easily

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overwhelming to such an early Twentieth-century neoclassical building. The structure certainly reflects a powerful dynamic sensation that GE wanted to deliver at the seminar. The McMillan site is not as architecturally significant as the Andrew W. Mellon Auditorium, but I would like to incorporate the idea of putting contrasting elements into a historic site. Like the luminous fabric structure does to the seminar site, a contrasting modern component would represent the present and a future compare to the history that the space represents.

It was also interesting to find out that the entire exhibition was installed in a period of just under three days, broken down into segments that would fit through the facility’s standard doors.26 The white structures were constructed in bent and welded 2” aluminum tube, wrapped in white fabric.27 Since the Tesla exhibition is a traveling show, I was looking for good methods to make the show convenient and sustainable for traveling. This modular structure idea is inspiring, and I will incorporate into the Tesla exhibition.

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