Revolving Scenarios is an arts-performing center located in San Juan, Puerto Rico, intended to host different cultural / theatrical and social events. The project is presented as a sequence of acts or events that directs the observer through its different spaces. Revolving Scenarios becomes a performing piece which tries to recreate a monumental and dramatic architectural spectacle in itself. It is a play performing in the landscape where the visitors / spectators become the leading actor. Due to the nature of the building’s geometry and location (inspired by the site’s curvilinear lines and the nautilus shell), the project continuously provides multiple opportunities for scenic tropes from the indoor / outdoors. Therefore, views revolve around the landscape, different theatre halls which continuously change and revolve around the theatrical spectacles.

As humans, we constantly move and live among scenarios that continuously change, evolve and revolve around ordinary life. The performing arts center becomes a microcosm of the macrocosmic everyday performances occurring in Puerto Rico. The performing piece allows us to expand our vision, vision of the world... our worldviews. The thesis allowed discovering poetic architectural views revolving around the theatre, the arts and culture which are constantly changing and evolving along time.
The project emerges in the historic district of San Juan, Puerto Rico’s capital. Old San Juan is located on a small narrow island located at the north coast, 35 miles from the east end of the island of Puerto Rico, and connected to the mainland by a pair of bridges called “Puente Dos Hermanos.” The inlet, better known as “La Isleta de San Juan,” is limited to the north by the Atlantic Ocean and to the south by the San Juan Harbor or “Bahía de San Juan.”

The project is located at the northeast shore of the inlet and opposite to the historic fort of “San Felipe del Morro” which defines the entrance to the San Juan harbor. The Performing Arts Center does not intend to visually compete with El Morro but to counterweight and create a visual balance along the shore, a highly visible symbol in the landscape. The Fort was named in honor of King Felipe II of Spain and was declared a world heritage site by the United Nations. El Morro is highly visited by people and it is one of the main tourist attractions of the island. The location of the site at the opposite end of the Fort is intended to attract visitors to this area.

spiral, radial and concentric forms define the main morphological language
deriving from predominant lines of the Site.
Old San Juan is a 465-year-old neighborhood originally conceived as a military stronghold; today it is a charming tourist, residential and commercial district. Old San Juan is characterized by its human architecture scale, its stone buildings and narrow streets.

The streets are paved with cobbles of stones, better known as adoquines, a blue stone cast from furnace slag that were brought to the island on Spanish ships. Time and moisture have provided their characteristic blue color. Old San Juan possesses more than 400 restored 16th- and 17th-century Spanish colonial buildings and fortifications along the northern shores that prevented British and Dutch attacks. Today people are able to promenade along trails that surround these fortification walls.

Old San Juan represents the oldest settlement within the United States territory and it is the historic colonial section of San Juan, Puerto Rico.
The site is an open space with no visual limits to the north shore, which gives an opportunity to extend and connect the building to the horizon and Atlantic Ocean.

The project’s site works as a hub between the historic city and the San Juan metropolitan area. It is located in the axis of “Puente Dos Hermanos”, which is the main access by land to the “Isla de San Juan”.

The project intends to join the surrounding natural elements with the architecture and the local artistic expressions of the area. It will frame views from these natural elements and spatially play among them. The surrounding environment becomes the inspiration for the notion of re-imagining views in the project. Those revolving views / scenarios are opportunities to visually capture and frame the essence of the site and the metropolitan and the historic character of the San Juan area. Therefore, the Genius loci or spirit of the place inspired the general shape and the project’s idea of containing revolving spaces.

The site’s contour lines and geometry originated the concentric, spiral and radial configuration of the project.
The idea behind *revolving scenarios* is to create an arts-performing center that could be enjoyed by all Puerto Rican population, a new place that could hold different types of cultural and social events. The project’s main conceptual ideas will be presented as a sequence of acts or events that will intentionally direct the reader along the building and its qualities. Subsequently, the logic behind the different acts, like a play, is to direct the visitor or spectator through key design features and spaces. The intention is to provide multiple opportunities for changing scenes, inside and outside and invite a sequential experience within the project and the surrounding landscape.
The project’s initial geometric explorations evolved around spiral, radial and concentric lines and shapes that were inspired by the site’s curvilinear lines and the nautilus shell. The radial segments of a nautilus shell spiral outwards in a reverberating manner from its center, maintaining the shell’s organic unity through its additive growth.

A continuous experimentation and play among circular shapes and volumes, suggested a rolling or turning movement around a central space as a key design intention. This movement also reflects what is constantly happening in a theatre: revolving scenes surrounding music, art, performances that also reflect continuous tropes occurring in the site. The notion of a revolving building, that could turn and change through its geometry, physically, and though its activities, becomes important in understanding this project.

The idea of movement and turning is reinforced by the use of vertical and horizontal elements such as structural ribs or framing elements, the roof system and glazing. The geometry would take advantage of ample views of the site and support the intention of having a central space that could hold the main theatre hall. In addition, the project communicates and opens to the sea through a radial movement, defining a dialogue between the water and the project.

Re--evolving Scenarios is a shelter for the arts, resulting from a play of concentric ribs among the landscape located in a junction point between El Viejo and the Nuevo San Juan in Puerto Rico. The project also represents a joining of everyday urban and historic scenarios with theatrical and musical events, the surrounding landscape, the notion of leisure and pleasure. In addition, the project will contain a lot of day and night activities and events that will attract people to the site.
The project’s program consists of interior and exterior spaces rotating and gravitating around the site and the main theatre hall. The building’s program is typical of a theatre, its peculiarities relies on the spatial experience and sequence achieved: it has both indoor and outdoor performing theaters, administrative offices, exhibition spaces, an outdoor garden and café, a gift shop and service areas.

The project contains theatrical events and as a whole, it represents a performing piece. This is experienced through the changing acts (events) and dramatic flipping between interior and exterior vistas along the curvilinear trajectory. This curvilinear trajectory is interrupted by an axis which directs circulation to the outdoor areas (water amphitheatre, a garden and an outdoor café).

The project’s curvilinear lines (suggesting the spiral movement of the nautilus shell), defines the main circulation and develops along a sequence of areas or acts that define the spatial performances. The spiral movement starts from the entry as a prologue, followed by the gallery hall with transparent views to the outdoors, then the pre-function areas, the theatre halls and tower (which are the main act), and finally the spatial sequence ends with a gift shop. The main theatre and tower, represents the revolving center that gathers music, theatrical spaces, and new landmark among the horizon.

After entering the building, two axes are predominant, one curvilinear that gather the three main performing spaces and supporting areas, and the other linear, a north to south axis directing towards the Atlantic view an outdoor plaza and amphitheatre.
Revolving scenarios articulate and join sight and site lines from surrounding landscape into the interior spaces of the project. Although scenarios literally do not revolve, they are constantly changing, reshaping due to the theatrical activities that occur, and generating movement and rotation of the eye and the body along different spaces and theatrical scenes.

The revolving effect consists of tropes along the horizon not only because of the possibility of rotation and framing of outdoor views from the surrounding landscape but from the ever evolving performing interior spaces and the building’s concentric geometry. Spaces, scenes, scenarios, habitations revolve and evolve along the building’s spatial journey. The site and the building not only turn and revolve but also transform the site through the incorporation of new habitable scenarios.
spiral is a reflection of transition, progression, repetition and transformation

The images show the transition space from inside to outside and the views towards the garden and outdoor amphitheatre. North elevation is the most dramatic one. The structural tower is a highly visual element or landmark and it’s composed by tensors that support the main theatre’s roofing system. The tower evokes sailing canvases that respond to the winds and it is perforated reinforced concrete to allow the wind through. The height of the structural tower counterbalances the dense proportion of the main building and theatre hall.
the amphitheatre arises as a projection of the whole theater piece into the water and following the main axis suggested by the context.
The amphitheatre keeps the same formal vocabulary of the main building. It is a performing piece itself blending into the landscape and playing with the ocean. The amphitheatre, like an amphibian, is a water and earth theatrical space that changes with the rise and lowering of tides. It is an informal space for outdoor entertainment events, small concerts and performances. It is the outdoor scenario that also works as a viewpoint to the sea and the final outdoor performing experience after promenading through the garden and outdoor cafe. The amphitheatre itself is a floating tiered platform over water; it is the open theatrical space where the senses fully enjoy the landscape and performing spectacles.

*concentric* walls frame the amphitheatre creating *layers* that define different *scenes* creating visual experiences while approaching this space.
GALLERY HALL

act IV
the rhythmic sequence of the structural elements appear as ribs along

In general, wayfinding and main circulation occurs through progression and transformation. These two ideas are expressed through the repetition of the vertical and horizontal elements that define the building’s enclosure. Progression is initiated by the structural ribs or bones, which are one of the most important components of the theatre. These ribs frame landscape views from the interior spaces, guide the interior spatial sequence and experience along hallways, define the arrival-encounter points to the different theatres and shape acoustical walls inside the theatres. Ribs are made by column and beam trusses that support the corridor roof system evolving fish scales and the nautilus shell skin. The sequential rise of roof system along the corridor also reinforces this rhythmic / progressive effect.

the lobby framing the different scenes from the outside environment

Once headed outdoors, the garden space is composed of a zigzag walkway surrounded by native vegetation that connects to the exterior amphitheatre. The zigzagging movement provides opportunities for site seeing at different focal points and angles creating gathering spaces and areas of interest along the garden. While approaching the shoreline, a water channel along the zigzagging walkways creates a transition towards the ocean and amphitheatre.
Exterior glazing is conceived to capture and conduct water to the reflecting pool. While water is running through the glazing system, it disappears and generates virtually a water wall. Waterfall reinforces the idea of movement and relationship of the building to the element of water present in the site. Sketches show how pumping and water recirculation may occur.

the *organic* structure of the performing piece has been

Along the main hallway, the rib elements cast shadow—light effects in the floor, projecting movement and the transition of time through space. It provides a feeling of walking inside a gigantic whale or living organism that emerges from the site. It reinforces the idea of rhythmic sequence along the hallway.

created to evoke the existing landscape and blend in with the natural forces of the site

Wall section

WS-a

Interior trusses will be typically exposed throughout the building.
The final scenario for the spectator’s journey is the main theatre hall, which is the locus of the whole performing experience. In the main theatre hall, every seat is staggered and has a direct view to the stage allowing spectators to connect with the performances taking place. The space located above the stage (or high stage tower), enables scenery changes, screens, lights etc. to flow in and out, up and down, which works as a catwalk. In addition, the roof structure allows to hold (anywhere in the hall) movable elements such as staging elements or screens, projectors, and platforms. Therefore, the main hall combines acoustic elements, materials in a flexible way supporting the idea of transformation of views and events that occur all around the building.

Main hall section

The transformable scenes performed in the main hall is reflected through an imposing vertical structure.

The model shows explorations among the theatre roofing system and assembly of the trusses and wall enclosure. The roof system is composed of three main shells. Each shell is made of precast concrete panels supported by a main truss and tensors to create structural balance. The scale, height and location of these shells respond to the internal height requirements for a performing arts center. Therefore, theatre elements such as the main trusses, acoustical panels, lighting, low height entry spaces and the high stage towers all coexist harmonically without spatial obstructions due to the conception of the shells. The ceiling’s floating paneling system in conjunction with wall panels provide appropriate acoustic requirements for a performing arts center. Acoustical elements calculations were developed based on acoustical course: ARCH 5036 TS: Acoustics.

The main theatrical performers are the structure and materials being transformed through spatial experiences.
The hall’s sound performance derives from the overlapping and successive layering of acoustical walls that hold perforated wood panels, allowing performers to locate anywhere in the theatre and perceive music, speeches, lectures, shows not only from the stage area but from everywhere in the hall. In addition, fabric ceiling panels were incorporated for both acoustical and aesthetic purposes.

ribs = articulation + progression
CONCLUSION

As humans, we constantly move and live among scenarios that change and continuously actions, experiences and daily circumstances which make it rich and livable. The project scenarios, the culture of place, not only regionally but from other parts of the world. The macrocosmic everyday performances occurring in Puerto Rico and a microcosm of in itself, an architectural spectacle which expands our vision:

final act

evolve. Like a play, these scenarios are impressed with human represents an architectural exploration manifesting everyday performing arts center becomes a microcosm of the events mirroring what is going on worldwide. It is a performing piece the vision of our culture, our own world…our worldviews.
I would like to dedicate this thesis to
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for their endless love and support
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Jorge Rosales, LEED AP

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