

## Scenography of the Nutcracker Balle experimental view on venue and presentation

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### Abstract:

Many basic factors aim to achieve the ability of the show to evoke deep emotions for the viewers and transcend all forms of written literature from a novel to a live show to transport us to a different world of perceptions, visions, and kinetic rhythms between viewers and actors by relying on audience participation and creating interaction with a space of a special nature through individual perceptions by reinventing aesthetic forms that do not maintain to the traditional forms for the theatrical performance by changing the way that spectators sit, movement, sound, and through the exchange of interaction between the movement of the performers and the display areas according to the experimental method developed by the new show, the entire experiments could be repeated to identify sources of variation for better effects through sequential analysis.

How to transform the selected area to fit this theatrical performance, we thought about taking the advantage of natural resources, how to use it in the implementation of the design as one of the factors that help in the success of the theatrical performance? Providing the design with natural background rich in landscapes, plants, wildlife, and include many archaeological sites of great importance to match the fictional events of the novel.

Choosing the venue for the show was one of the most important elements of performing this experience, Wadi El-Gamal Reserve was characterized by calm sea day and night, no violent waves, by using marine platforms dealing with the relationship among the audience, theatrical platforms and natural background, how can we connect them? Integrate all the possibilities of platform construction using custom techniques with recycled materials transforming the show from a stationary stage to several floating platforms on the water.

The charming nature of the place was exploited and combined with the vocabulary of the theatrical performance, using boats as seating places for spectators with specific locations, the five floating platforms were set up on the surface of the water.

Design lines were based on the shape derived from the dew drops formed on the tree leaf, were analyzed to five floating platforms, the natural passage provided by the coastal environment was exploited.

### Search terms:

Scenography- experimenting theatrical performance- audience imagination

### المخلص:

هناك الكثير من العوامل الأساسية و التي تهدف الى تحقيق قدرة العرض على إثارة المشاعر العميقة لدى المشاهدين وتجاوز جميع أشكال الأدب المكتوب من رواية إلى عرض حي لتنتقلنا إلى عالم مختلف من التصورات والرؤى والإيقاعات الحركية بين المشاهدين والممثلين من خلال الاعتماد على مشاركة الجمهور وخلق تفاعل مع مساحة ذات طبيعة خاصة من خلال

التصورات الفردية و ذلك بإعادة ابتكار أشكال جمالية لا تلتزم بالشكل التقليدي للمسرحية من حيث مكان الأداء المسرحي عن طريق تغيير طريقة جلوس المتفرجين والحركة و الصوت، ومن خلال تبادل التفاعل بين حركة المؤديين ومناطق العرض حسب الطريقة التجريبية التي طورها العرض الجديد، ربما يمكن إجراء التجارب بأكملها وإعادة تكرارها للمساعدة في تحديد مصادر الاختلاف من أجل تأثيرات أفضل من خلال التحليل المتسلسل.

وعند البحث عن كيفية تحويل المنطقة المختارة لتناسب هذا العرض المسرحي، فكرنا في كيفية الاستفادة من الموارد الطبيعية وكيفية استخدامها في تنفيذ التصميم كأحد العوامل التي تساعد في نجاح العرض المسرحي والتي تمد التصميم بخلفية طبيعية غنية بالمناظر الطبيعية والنباتات والحياة البرية، كما تضم العديد من المواقع الأثرية ذات الأهمية الكبيرة لتناسب مع الأحداث الخيالية للرواية.

وكان اختيار مكان العرض من أهم عناصر أداء هذه التجربة، و حيث أن محمية وادي الجمال تمتاز بالهدوء نهاراً وليلاً، والبحر في هذه المنطقة هادئ، ولا توجد فيها أمواج عنيفة، لذلك يمكننا استخدام المنصات البحرية لهذا الأداء، لكننا نتعامل هنا مع العلاقة بين الجمهور وهذا النمط من المنصات المسرحية والعلاقة بين منطقة التمثيل بالخلفية الطبيعية، والسؤال هنا كيف يمكننا الربط بينهما، وكيف يمكننا دمج كل إمكانيات بناء المنصات باستخدام تقنيات مخصصة لبناء الأشكال والمواد المعاد تدويرها، وكيفية تحويل العرض من مرحلة ثابتة إلى عدة منصات عائمة على الماء، مع الحفاظ على الاستقرار والثبات للعناصر المستخدمة في العرض والمؤديين وحتى جمهور العرض.

وكيف تم استغلال الطبيعة الساحرة للمكان و الدمج بينها و بين مفردات العرض المسرحي واستخدام المراكب كأماكن جلوس للمشاهدين بحيث تكون أماكن تواجد هذه القوارب محددة، أقيمت خمس منصات عائمة على سطح الماء، واستقر الجمهور في القوارب لمتابعة أحداث عرض، و استند عندها التصميم الى الشكل المشتق من قطرات الندى المتكونة على ورقة الشجرة والتي تم تحليلها لتتحول إلى الخمس منصات العائمة على الماء، كما يمكن استغلال الممر الطبيعي الذي توفره البيئة الساحلية، لم يكن وهم الأحداث للعرض المسرحي هو الهدف من تقديم هذا العرض، بل كان كيفية إنشاء تصميم يعتمد على تحريك خيال الجمهور والاستجابة للتفاعل بين المكان الذي يقدم فيه العرض المسرحي. ومفرداته مع أحداث الرواية الأدبية والربط بينهم وبين الجمهور.

### الكلمات الرئيسية

سينوجرافيا، التجريب، المسرحية، خيال المشاهدين.

### Introduction:

The audience is the essential factor in achieving any effectiveness of theatrical art, and this is what controls the acceptance or rejection of the show, therefore it was necessary to search for mechanisms that achieve audience interaction with the theatrical performance and determine the maximum response between them.

### Target:

The goal was to achieve the ability of the show to evoke deep emotions in viewers, to transcend all forms of written literature from a novel to a live show, and to expand its impact to provoke a wave of emotions and transport us to a different world with patterns of perceptions, visions and kinetic rhythms between viewers and actors with the aim of activating audience

participation and creating interactive relationships with the audience in a space of a special nature through individual perceptions in a vacuum formed from a subjective perspective so that this view remains the main element for the actor and the audience of the show, in addition to attracting the attention and thinking of the spectator who interacts with the show to be able to mix the selected theatrical signs in the new environment in a way that enables him to understand the viewing process in depth.

### **The problem:**

How can we reinvent the design of aesthetic formulas that do not adhere to the traditional natural form of theatrical performances to suit the nature, shape, and place of the theatrical performance through a change in the way spectators sit, the movement, by exchanging the roles between the audience and performers?

By changing the interaction between the movement of the performers and the display areas (sequentially organized experiment according to a specific methodology), which is the response methodology, according to the experimental method developed between one presentation and another, perhaps the entire experiments can be repeated to help identify the sources of difference in order to better estimate the real effects of handling and enhance the validity of the experiment through sequential analysis experiments using sequences (sequences of experiments), the design of which depends on the results of the previous experiment, including the possible decision to stop the experiment because of this analysis.

### **Research importance:**

In the context of achieving the state's plan for sustainable development and preserving natural environmental resources while avoiding false positive conclusions that may come from the designer himself, the design may be subjected to random analysis by some viewers of this experience, so we study the psychological, cultural and intellectual factors whose interaction leads to the creation of a specific concept of the method of presentation of the recipient, which generates aesthetic values that govern the process of receiving, which requires studying several factors before conducting it, by developing a detailed plan for the variables that may occur during the presentation (the experiment factor is an independent variable that must have time and effort to organize it correctly. Or the experiment may turn to the use of the random method, either complete randomness or partial randomness, and this experiment treats one or more variables and its effect is measured through a set of procedures to test this hypothesis and this variable is looked at, and the first variable in this experiment is the shape of the display area and the second variable is the audience's seating and the way they interact with the display form; the space is divided into several areas.

### **The Design problems:**

-The first was about how to convert the area of Wadi El-Gamal to fit this theatrical performance? Which was presented as a water body, and how can we take the advantage of the natural resources then use them in the implementation of the design as one of the factors that help in the success of the presentation, (like the calm water nature in addition to the nature of mangroves) which provides the design with a natural background to match the fictional events of the novel.

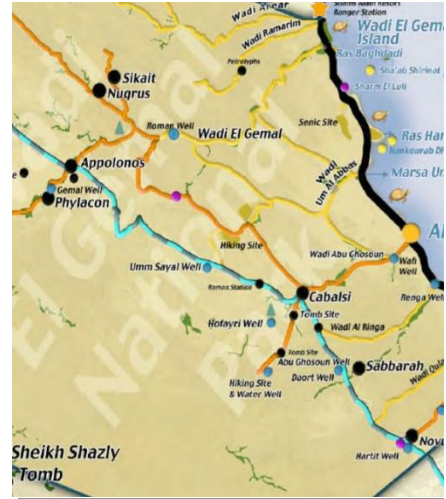
-The second problem is the presentation method, which is divided into first: setting up the display platform, and secondly: where the viewers sit during the show.

**Choosing the venue for the theatrical performance:**

Wadi El-Gamal Nature Reserve in the Red Sea:

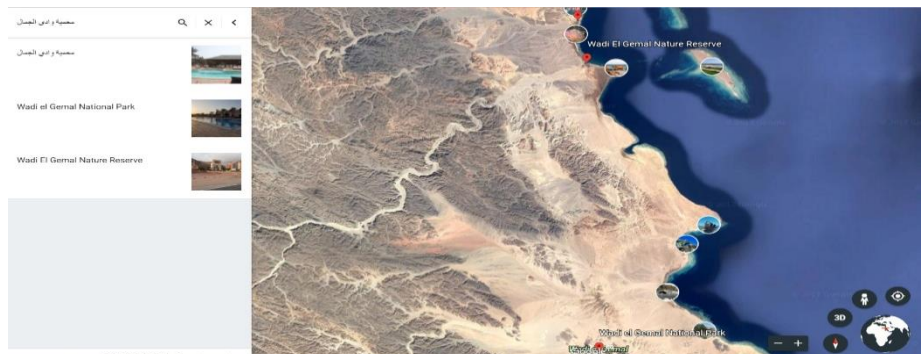
Wadi El-Gamal region was declared a nature reserve (or national park) in 2003, in order to preserve the ecosystem. It is rich in natural landscapes, plants, wildlife, and includes many archaeological sites of great importance. In addition to the mountains, visitors can explore the famous emerald mines, which are considered the oldest mines in the world, since the ancient Pharaonic era fig (1) showing a map for the location of the reserve.

Wadi El-Gamal Reserve is still relatively unknown, but it is considered the main home to an important community of Bedouins, who are trying to preserve their ancient traditions. The reserve is also rich in a variety of sites of great tourist interest, including sandy beaches, and a marine environment rich with unique coral reefs in its beauty.



**Fig (1)A map showing the location of Wadi El-Gamal Nature Reserve, which is located on the Red Sea coast and the surrounding areas**

It is a nature reserve with an area of 7,450 square kilometers, located in the southern region, comprising part of the Red Sea coast with a length of about 60 kilometers with an average depth of about 50 kilometers in the



**Fig (2) A satellite image of the Wadi El-Gamal Reserve, showing its area and the shape of its coast**

Eastern Desert, and about 10 kilometers inside the water surface of the Red Sea fig (2) showing a satellite image of Wadi El-Gamal Reserve. It contains many trees, palms, and lakes in which salt water is mixed with fresh water. It also has environmental and aesthetic components, in addition to what it provides us with of distinctive elements of the natural heritage in Egypt, as it contains unique kinds of animals and plants, in addition to many rare and endangered species of plants, such as mangroves extending along the coasts, the best coral reefs and seaweeds, which are a shelter for some marine creatures such as mermaids and sea turtles, in addition to being a suitable environment for the reproduction of fish and invertebrates.

**Indigenous people:**

Residents of the Ababda and Bashara tribes live there, whose origins go back to the oldest peoples who lived between the Red Sea and the Nile Valley, their activities focus on grazing and the exploitation of plant species for food and trade.

They live in huts called Khisha fig (3), it is a simple structure made of palm trunks or other elements of the surrounding nature. Its inhabitant's fish on their small boats, their children enjoy swimming. They are used to receiving visitors, act as guides for visitors to the reserve, and organize safari trips with responsible companies to enjoy the desert life and the habits and food of the Bedouins.

Accommodation is enjoyed among the charming nature in tents and camps or hotels surrounding the reserve.



**Fig (3) the Khisha where the Residents of the Ababda and Bashara live, and some kind of wildlife**

### **Ecosystem and Environmental Diversity:**

The reserve is characterized by a rocky nature in its western part, Fig (4) showing a simplified map showing the nature and wildlife of the reserve, while it becomes sandy as it approaches the coast, which has a long beach suitable for swimming.

Mangroves (plants called *Avicenna marina*) grow in many areas on the coast and form a unique ecosystem. Mangroves are considered as natural filters; it filters seawater and purifies salt through their leaves. They are also nurseries for many types of fish, and many types of birds as well as providing stability to the soil and thus protecting the coast from marine erosion.

The roots of the mangrove act like home to many invertebrates, and many crustaceans, including the clawed crab, which digs its hole in the sand and resorts to it at the slightest sign of danger.

The island of Wadi El-Gemal and the areas of Qalaan and Hamata are among the areas where mangroves are abundant, however, these plants are not the only ones that grow in this coastal region, in different regions one can observe many shrubs whose roots form small coastal dunes, such as tamarix trees, marsh reeds, and date palms.



Fig (4) A simplified map showing the nature and wildlife of the reserve

### **The birds:**

Wadi El-Gamal is characterized by natural and climatic conditions that made it home to many rare birds that have already been spotted, Fig (5) shows some kind of these rare birds such as the Ajman gull, the raven gull, the crowned hook, and the white-faced hook, in addition to the presence of many rare and endangered eagles and sunset falcons that are endangered. They build their nests on salt bushes or in small caves on the eastern side of the rocky valley.



Fig (5) some kind of the rare birds that have already been spotted

### **Marine environment:**

The marine life in the reserve varies, as it contains coral reefs that are found along the coast, and represents about 17% of the marine life in the Red Sea, as it looks like submerged islands in the middle of the sea, Fig (6) shows some kind of the marine life in the reserve.

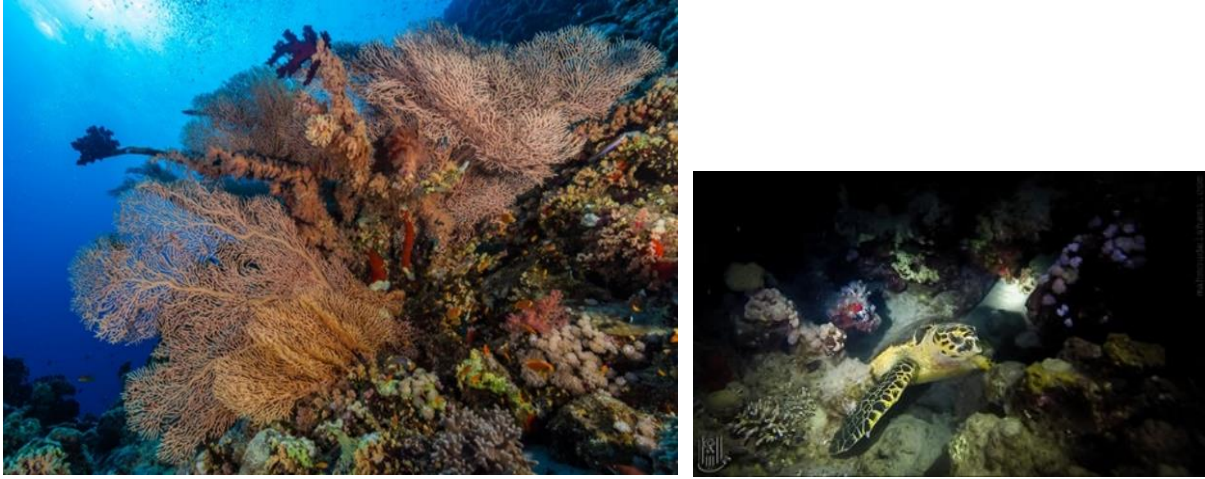


Fig (6) some kind of the marine life in the reserve

**Desert environment:** fig (7) represents a garden of jagged hills that connects the land environment and the marine environment down to the depths of the Red Sea, many medicinal plants have been recorded, and mangrove bushes extend over long parts of the coast of the region, which is a distinct environment, highly sensitive, and rare in the country, in addition to the presence of more than 140 species of rare plants.



Fig (7) a garden of jagged hills that connects the land environment and the marine environment

**Geological formations:**

This region is known by the presence of geological formations fig (8), it's also rich in precious minerals, such as the pyramidal emerald, which was the source of attraction for the pharaohs and afterword the Romans explored this region, and this area was considered the main source of emerald stone for the ancient Roman Empire, and the presence of precious minerals is not limited to only this type but also lead, manganese and feldspar are found.



Fig (8) a photo shows a kind of geological formations

### **Animals and Wildlife:**

This region is characterized by the presence of winding valleys and scenic views of the jagged mountains, fig (9) shows natural environment for species of deer and the endangered Nubian caribou, which live on mountain springs, in addition to the diversity of existing reptiles, which number at least 25 species.



Fig (9) a photo shows natural environment for species of deer and the endangered Nubian caribou

### **Archaeology:**

The reserve has an archaeological area from prehistoric times, as well as Roman and Ptolemaic monuments as it is shown in fig (10).





Fig (10) Remains of an archaeological site from the Roman era archaeological area

### **Reason for choosing this site:**

Choosing the venue for the show was one of the most important elements for performing this experience. The reserve is characterized by beauty and calmness like in fig (11), (12), day and night, and the sea in this area is calm and there are no violent waves in it, which is consistent with the establishment of marine platforms for theatrical



Fig (11) shows beauty and calmness of the reserve

performance, in addition to the natural background which fits the dreamy atmosphere of the show.



Fig (12) shows the beauty and calmness of the reserve

### **Floating platforms:**

The exploitation of water bodies in the design is not new, whether at the general level or the level of theater construction, as many theatrical performances have been presented on floating theaters, but we are dealing here with the relationship between the audience and this style of theatrical platforms and the relationship between the acting area and the natural background and how to link between them and the elements of theatrical scenes.

As for the types of platforms, they are numerous, and each type has a design that fits with it and suits the purpose used in it. The design allows a clear view of all platforms and events taking place on them from all directions.

It is also possible to build platforms using techniques dedicated to build anchorage ships and recycled materials to allow for the multiplicity of materials used in their construction as in fig (13), and the design in this way provides the opportunity to link between the three components of the display (scenic elements - the surrounding environment - achieving the imaginary atmosphere of the show).



Fig (13) shows the Environmentally friendly materials used in the construction of ship moorings

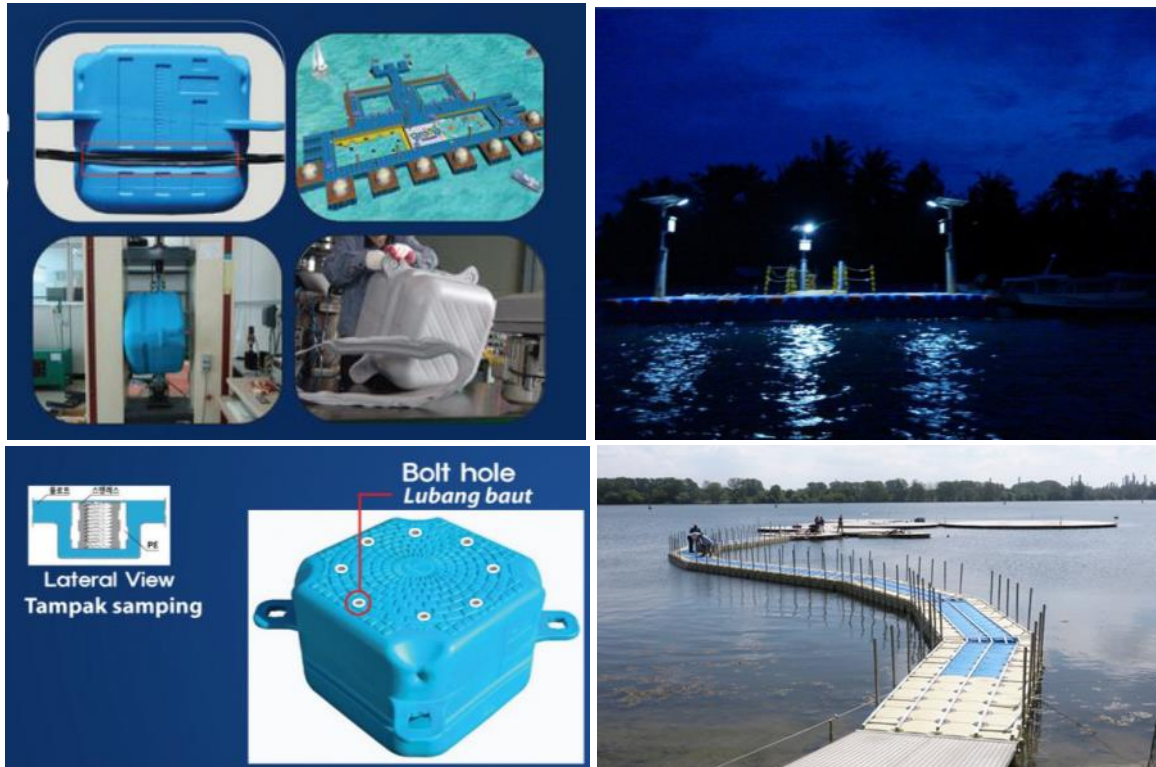


Fig (14) shows floating cubes that can be assembled in multiple shapes, such as corridors, platforms or any other form in the reserve

### **Display platforms:**

First: Creating the stage of the show: How to transform the show from a fixed stage to several floating platforms on the water, while maintaining the stability of the scenic elements and performers or even the audience? And simplifying the use of scenes so that the movement of the performers and the audience is the focus of the theatrical performance, the stage is made with the Next Float system, it is a system that consists of floating cubes that can be assembled in multiple shapes, such as corridors, platforms or any other form, which is environmentally friendly made of HDPE fig (14), a high-strength polyethylene material, as it is easy to assemble and adapts to the high waves of water in the seas and rivers with its ability to maintain stability despite the vagaries of the waves, as it is easy to assemble and allows the installation of complementary parts on top of it.

### **Second The seating of the viewers during the show:**

The charming nature of the place was exploited and the boats were used as seating places for viewers in the different stages of the show. In the next few lines, we will review similar global experiences of floating theater design.

**- Similar global experiences for floating theater design:**

In a previous experience, Joseph Grima presented a floating theater to the Italian capital of culture in 2016 to stimulate tourism and link the city, water, and design elements to transform the theatrical show into a live show or a theater for live performances fig (15).



Fig (15) Samples of the music show that was presented in 2016

The other, at the Bregenz Festival 2019 entitled Rigoletto by Verdi at the 74<sup>th</sup> edition of the festival, where nearly 7,000 spectators sat on the beach facing the floating platform on Lake Constance, the largest theater of its kind in the world Rigoletto's production was extraordinary due to its technical brilliance fig (16), the immersive sound experience was one of the main

fascinating of the crowd. The newly developed sound system is BOA 2.0, which stands for Bregenz Open Acoustics. Use of 29 columns, each with 3 switchable K&F SPECTRA 212 amplifiers to meet 3 separate audience levels. Near-field coverage is provided by the K&F CA 1001 CX, a coaxial tweeter built specifically for the event. The fully immersive 3D sound system is controlled by the VIVACE electronic acoustic processor by MÜLLER-BBM. For precise coverage, the KLING & FREITAG amplifiers were chosen. Contrasted to other manufacturers, SPECTRA 212 Switchable Matrix Speakers were showed. The new KLING & FREITAG SPECTRA 212 speakers - along with a specially designed CA 1001 CX coaxial tweeter - achieved the highest level of festival sound, creating a unique and immersive audio experience for audiences at this stage show.



fig (16) Various scenes from the stage show Rigoletto 2019

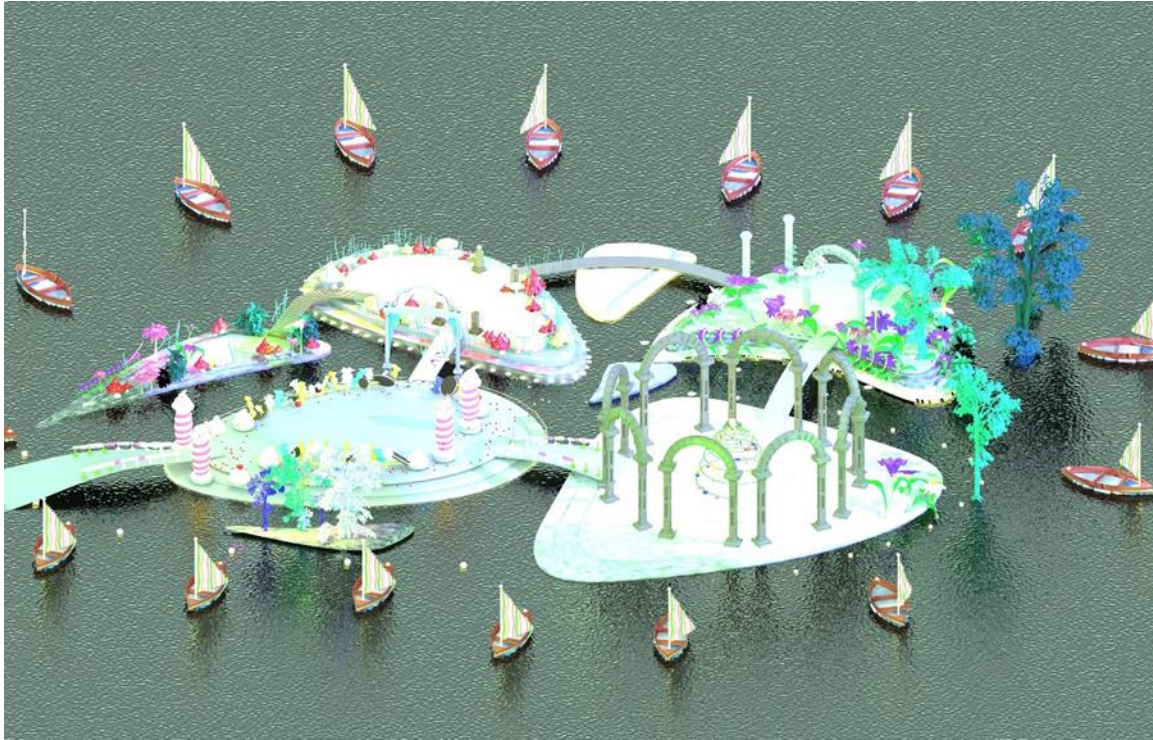
### Story events:

The Nutcracker is one of Tchaikovsky's solos, which took him a year to compose, it was about the big Christmas celebration held at Clara's father's house.

The family friend Druselmayer told a magical story in which he tried to entertain the young and the elderly, then he gave Clara a doll in the form of a nutcracker, so her brother Fritz was jealous and tried to take it by force, but he broke a part of it, Clara was sad for the toy, the party ended, everyone fell asleep.

Clara woke up to see her Nutcracker doll ,suddenly, she saw Druslmayer's face, then She felt that the room with all its contents was changing in size and getting wider, the Christmas tree and presents next to it multiplied, then the whole room turned into an icy forest. The Nutcracker doll turned into a young prince who took Clara who had become a beautiful girl on a journey of dreams, they danced happily with a group of dancers, and many strange events occurred in

various places fig (17), then the prince returned and turned into a doll again, and Clara woke up from her sleep to find herself inside a beautiful dream.



**Fig (17) The image illustrates the entire design of the display platform and its relationship to the surrounding aquatic environment**

### **The events of the show:**

It took place in five floating areas on the water surface. The audience settles in the boats to follow the events of the show. The first area is where the huge Christmas tree is located and the beginning of the events, which includes Druselmeyer's gift to Clara (the Nutcracker doll). Then the show moved to the second area, in which the rat army attacked Clara, and the Nutcracker Prince defended her.

The third place was, the city of candy fig (18), in which some events of the novel took place, then they returned to the first area under the Christmas tree, Clara woke up and discovered that she was in a beautiful dream, by analyzing the movement and the interaction between the factors of the experiment, there must be a variable in the experiment to study the various levels within the experiment.



Fig (18) shows the city of candy and its relationship to other design elements

### Design inspiration:

The construction of the design of the theatrical platforms was based on the shape derived from the dew drops formed on the tree leaf fig (19), which was analyzed to turn into five floating platforms on the water and a mixture between them and the natural corridor provided by the coastal environment, to revolve the events of the show, the movement between these platforms through corridors as it resembles a bridge, to achieve the full enjoyment of theatrical events and its imaginative atmosphere, mixed with the elements of nature in the place designated for the show, including water, trees, and a beautiful natural environment.



Fig (19) drops formed on the tree leaf which was the Design Inspiration source

The design process went through several stages fig (20), (21) to reach the final form (sketches illustrating the stages of the designing process):

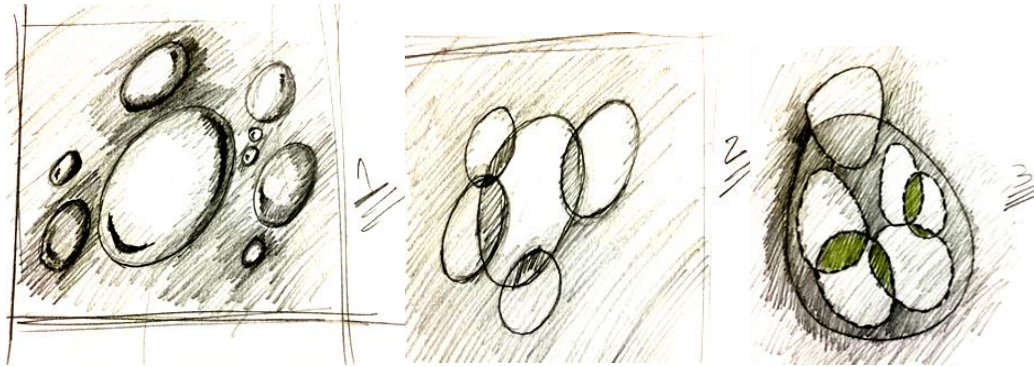


Fig (20) The design process stages

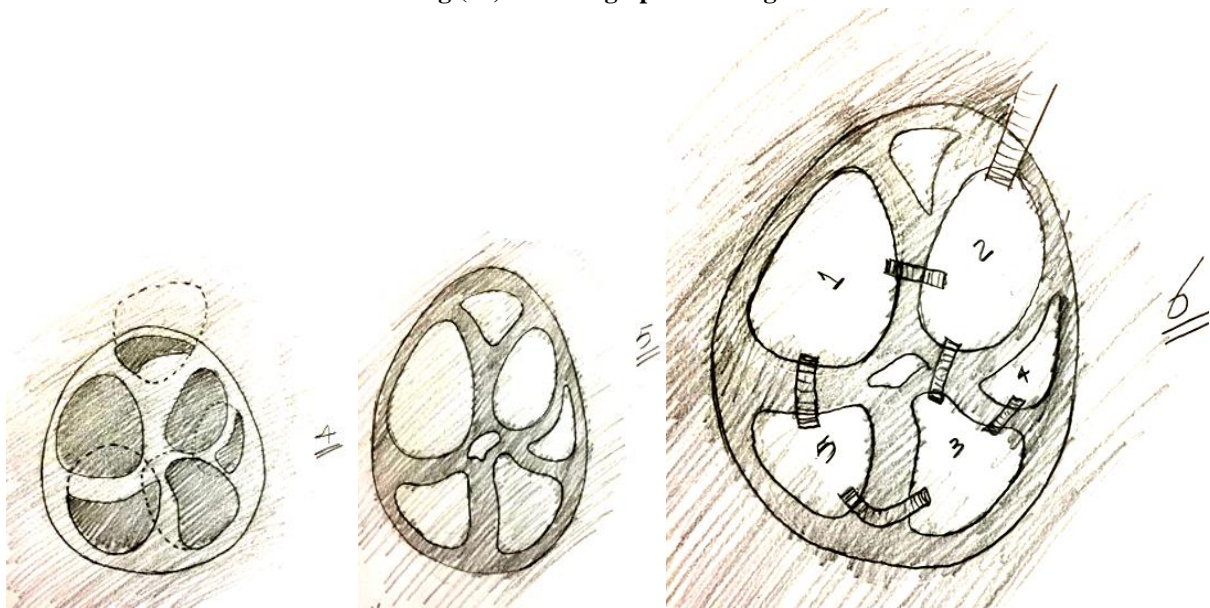


Fig (21) The design process stages

**First region:**

It is a platform that rises three degrees above sea level. The platform contains columns representing the foyer of Clara's house fig (22), in which there is a large Christmas tree.



fig (22) The platform that representing the foyer of Clara's house

**Second region:**

Then the events of the show move to the second area, in which the rat army attacked Clara and Prince of the Nutcracker defended her fig (23). There is a bridge between this platform and the first platform.



fig (23) The platform that representing the rat army that attacked Clara and Prince of the Nutcracker defended her

The platform also contains two gates on both sides of the platform for entry and exit. The ground is made of what looks like stones to suggest the events that took place in this area.



**Third region:**

It consists of a platform prepared for the duel between the King of the Rats and the Prince of the Nutcracker. At this time, Clara will be boarded in one of the boats in preparation for the fourth stage of the parade and the transfer to the magical candy city fig (24). It is made up of a platform two degrees above sea level, it is considered the fourth platform.

The fifth area is the area of the flower dance, which is a platform raised three degrees above sea level fig (25).

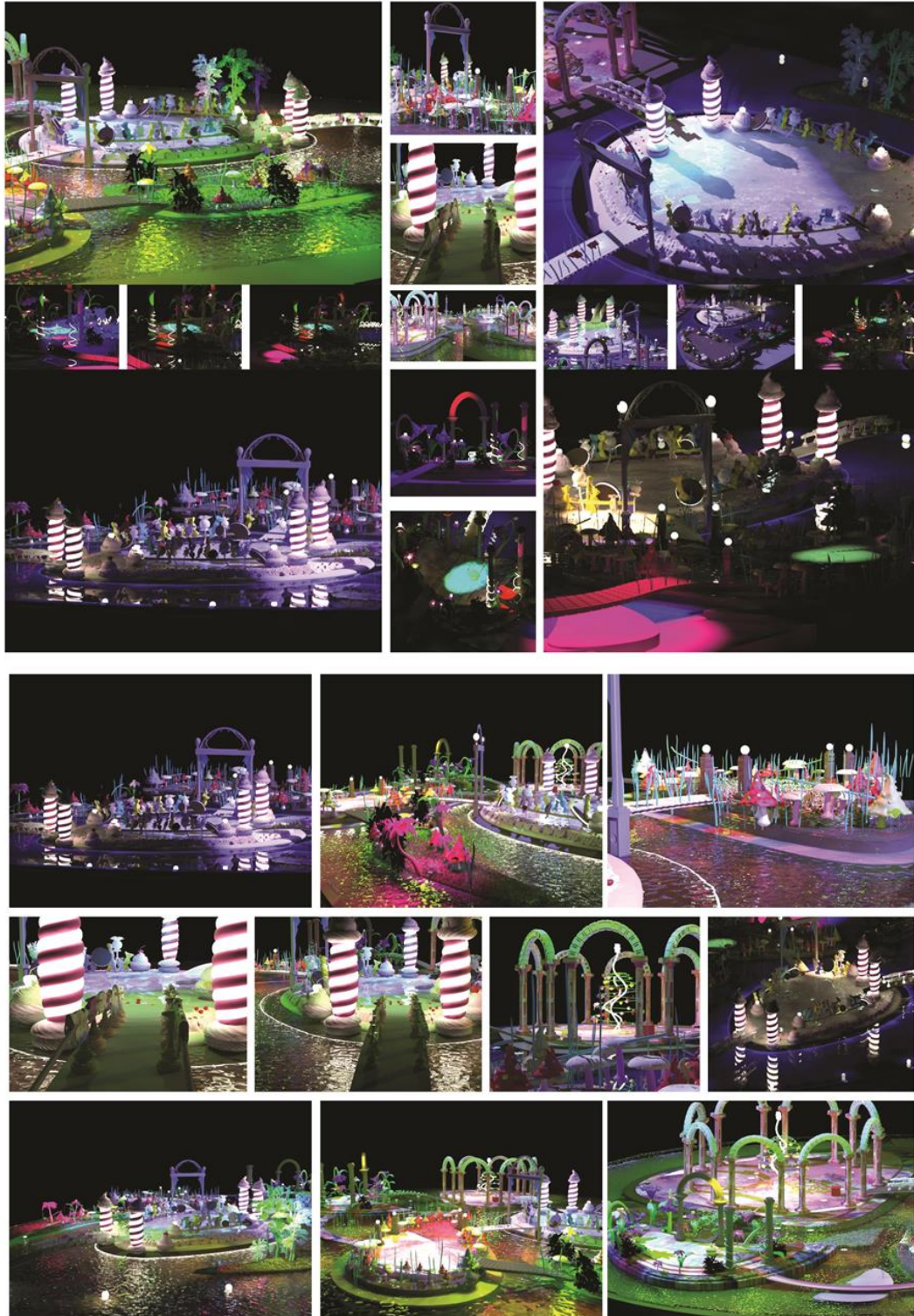


Fig (25) the relation between all platforms

**The sound in this performance:**

It is related to the sequence of the events of the show, the type of theater on which the performance is presented, and the place where the performance is located, we can draw a map of the sound and calculate the changes that occur due to the wind speed and the extent of this place with the proximity of loudspeakers to specific areas and the possibility of merging sound samples or amplifying some instruments within the performance of the live musical show to ensure interaction between all the previous factors with the space prepared for display.

This show is characterized by no dialogue or lyrical performance, but it requires a precise sense of timing between the events and the music to obtain the desired visual result in a sequence that appears to be vital to maintain the dramatic relationship between the entire show and the audience, thus distribute the sound in a comprehensive circular way to maintain clarity and create an immersive sound, in addition to determining the ideal distance that must be available between the sound source and the audience, the display elements, and the space, and the bodies of the performers can be used to carry some loudspeakers if necessary and use tracking devices or sensing as a means to integrate space with sound and achieve synchronization between the movement of the performers and the music.

**Range of vision:**

The idea of using boats is not new, it is characterized by the possibility of moving during the show to achieve more visibility during theatrical events, in addition to the presence of specific places to install the boats taking into account the natural movement of boats due to the movement of water.

**Finally:**

The illusion of events for the theatrical performance was not the goal of presenting this show, but it was how to create a design that depends on moving the audience imagination and response to the interaction between the place in which the theatrical performance is presented and the vocabulary of this show with the events of the literary novel, which is what linked the theatrical performance with life, and the improvement of the conditions of presentation and audience with the transformation of the recipients into one of the elements of scenography by their movement within the events of the presentation was based on **several levels:**

**The first level:** movement of boats within the waters down to the viewing platforms.

**The second level:** forming the space by exploiting the plant background of mangrove trees, and merging them with the performers as one of the most important elements of the scenography for this show.

**The third level:** the addition of stereoscopic elements, but it allows vision from all directions, movement, and climbing on the platforms during the theatrical performance, then onto the boats again to follow the rest of the show's events and return to the shore after the events end again.

**Results:**

- Vital environments enable us to use them as a source of design in theatrical experiments, and their exploitation is not limited to creating shapes inspired by nature, but also goes beyond that, such as exploiting natural environments with their plant or mountainous, etc. as one of the scenography elements and relying on them in design primarily.

The use of environmentally friendly raw materials (which are flexible in their ability to be exploited) goes beyond the aesthetic form to the dimensions of preserving the environment.

### Recommendations:

The elements of nature enable us to exploit and employ them in many scenographical designs, so;

- I recommend theater decorators to follow new ideas while preserving the environment that depend on the place as one of the elements of scenography to influence the success of miscellaneous theatrical experiences.
- I recommend designers of scenography to present more exploitation of nature and use its already existing elements as a source for theatrical design, integrating all possibilities of platform construction using custom techniques with recycled materials,

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