

# THEATRE DESIGN & TECHNOLOGY

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## Behind the Curtain

Virtual reality creation  
enables students to  
explore a timeless  
puppetry tradition



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A Ningyo Joruri puppet with a fish. | Image courtesy of the Awaji Ningyo Joruri Museum



A collection of puppet heads. | Image courtesy of Awaji Ningyō Joruri Museum.



# INTRODUCING

# Joruri Puppetry

Virtual reality creation enables students to explore a timeless tradition

BY NAKO SKALA

**N**ingyo Joruri puppetry theatre (known as Bunraku puppetry theatre) is a traditional Japanese theatre art form. The form uses a large wood curved-headed puppet (4 to 5 feet tall) manipulated by three puppeteers, rather than the Muppet or marionette-style puppets that people tend to imagine when they hear “puppets.” The practice is inherited by generations, and the technique and style are vibrant, making the audience feel moved. Ningyo Joruri was also inscribed on the list of the Intangible Cultural Heritage of Humanity by UNESCO in 2008 (“Ningyo Joruri Bunraku Puppet Theatre”).



As a theatre designer and practitioner, I see the stage as a whole picture when I observe a performance. My main focus is usually watching how the scenery and other design elements support telling the story with the performers. However, the Ningyo Joruri puppetry theatre provides a different perspective. All the dialogue is spoken by one narrator, and as a result, it is easier to concentrate on what the puppeteers and puppets perform on the stage. When I saw a Bunraku puppet theatre performance, a female puppet was getting ready to go out. The puppet was using a hairbrush and holding a hand mirror, even though the narrator did not mention these actions. I could not take my eyes off the puppets for the rest of the performance, and I inherently understood the action. After the performance, I wondered how they created the illusion and effectively told the story.

Personally, I find observing or analyzing the floor plan of the theatre space is one of the most effective ways to learn theatre art forms, and the stage architecture dictates Japanese puppetry theatre performances. Creating a virtual 3D puppet theatre is useful for experiential learning because people can walk through the virtual reality (VR) space and print out the scaled 3D model to review the foreign theatre space without visiting the venue. I decided to research the brief history of the Japanese Ningyo Joruri Puppet Theatre and create a virtual 3D Japanese puppet theatre.

Some Japanese puppetry theatres are often performed in a multi-purpose proscenium style theatre that is shared with other theatre forms, such as Kabuki or European Opera or different performance styles. However, they tend to simplify the puppet theatre staging to adjust to the space, which provides different impressions to the audience. The National Bunraku Theatre and Awaji Puppet Theatre venues are mainly performing puppetry. Luckily, I got the floor plan of the National Bunraku Theatre from the Architectural Institute of Japan's book *Kenchiku Sekkei Siryo Shusei* (2003) to create a virtual 3D model space for this project.

### Sacred Puppets and Folk Art

Before the systematic introduction of Korean and Chinese arts in the 7th century, Japanese performing arts were



Shamisen from 国立文楽劇場 (令和4年6月開催) 入門展示「文楽へようこそ」(“National Bunraku Theatre Introductory Exhibition ‘Welcome to Bunraku’ in June 2022”). | Courtesy National Bunraku Theatre.

mostly used as part of the ritual ceremony of the local Shinto deities for a good harvest or for ceasing and preventing natural disasters or diseases. Over time, sacred performing arts became the more modern entertainment style for the ceremonies of religious festivals, and puppetry theatre was one of these popular forms of entertainment. In *Religious Reflections on the Human Body*, Jane Marie Law describes that puppets and other types of effigies and body substitutes have been used for various sacred purposes in Japan, such as guarding tombs; purifying people, buildings, and sites; ritual ceremonies for better harvest; ensuring safe pregnancies and childbirth and children's health; and acting as spirit vessels for Shinto deities. “The sacred specialists capable of luring and harnessing powerful forces and concentrating them into the form of the body substitute or effigy were regarded with a mixture of fascination, awe, and dread” (Law 1995, 255-256).

The oldest sacred puppetry entertainment on record, which also survived, is the Sumo (traditional Japanese wrestling) puppets from Hachiman Kohyo Shrine in Fukuoka (CE 744). Every four years, Shinto priests and priestesses have devoted the dance and Sumo performances of Shinto deities' puppets to the local Shinto deities. They are called

Kuwashio no Mai and Kami Zumo (細男舞、神相撲), designated as Important Intangible Folk Cultural Property by the Japanese government (“Hachiman Kohyo Shrine Official Website”). The wooden curved simple puppet structure and movement of Sumo puppets exhibit the origin of Ningyo Joruri and Awaji puppets. After the foreign arts introduction in the 7th century, Japanese performing arts were performed for various religious rituals, but they gradually developed as nonreligious amusements. However, the idea of enjoying the religious performing arts as one of the practices to bond with Shinto gods or Buddhist deities unconsciously remained. Therefore, Japanese performing arts traditions have been inherited over generations (Terauchi 2018, 18).

While the Ningyo Joruri puppets find their origins in Sumo puppets, the performance style and use of narration can be traced to a number of later artistic developments. By the Heian period (794-1192), the style of puppet entertainment by traveling performance troupes became popular (“History of Bunraku”). The puppeteers manipulate their puppets from a box hung from their necks. The back of the box was open to allow the performers to manipulate their puppets easily (Law 1997, 45). Later in the 13th century, the art of narration in collaboration with Biwa



Awaji Puppets at the Awaji Puppet Theatre. | Photo by the author with thanks to the Awaji Puppet Theatre.

music (a lute-like instrument) was developed. The art form is especially used for *Heike Monogatari* (*The Tale of the Heike*) (“History of Bunraku”). In the mid-Muro-machi period (1336-1573), a love story of Princess Joruri and Ushiwaka Maru became popular because they used a new narrative art form, a combination of song and narration to tell the story effectively, and this art form eventually came to be called Joruri. The Biwa was replaced in the late 16th century (Azuchi-Momoyama period, 1568-1600) by the Shamisen, a three-stringed musical instrument with a louder, richer, and more pleasurable sound palette. As Goto and Cummings note, the “performance duties were eventually split between a dedicated chanter (*tayu*) and a shamisen player, permitting more nuanced musical and vocal expression” (2016, 161).

By the early 17th century (Edo period 1603–1867), the Joruri narrative began to be acted out with puppets, and the new

form of Ningyo Joruri (puppet Joruri) was born. At the time, there was very little entertainment in the rural areas, and merging the traveling puppet performance and the heartfelt Joruri story with music resulted in a large audience and led to a huge financial success (Fudo 2002, 116). Further, the style of puppet performance on the neck-hanging stage was manipulated by one puppeteer and Joruri was performed by one narrator with a musician, so the simplicity of the performance style was suitable for the traveling performing style. These performances, originating in Mikawa (near present-day Nagoya), soon spread throughout the country and survived in several regions as folk art (Nakamura 2019, 57).

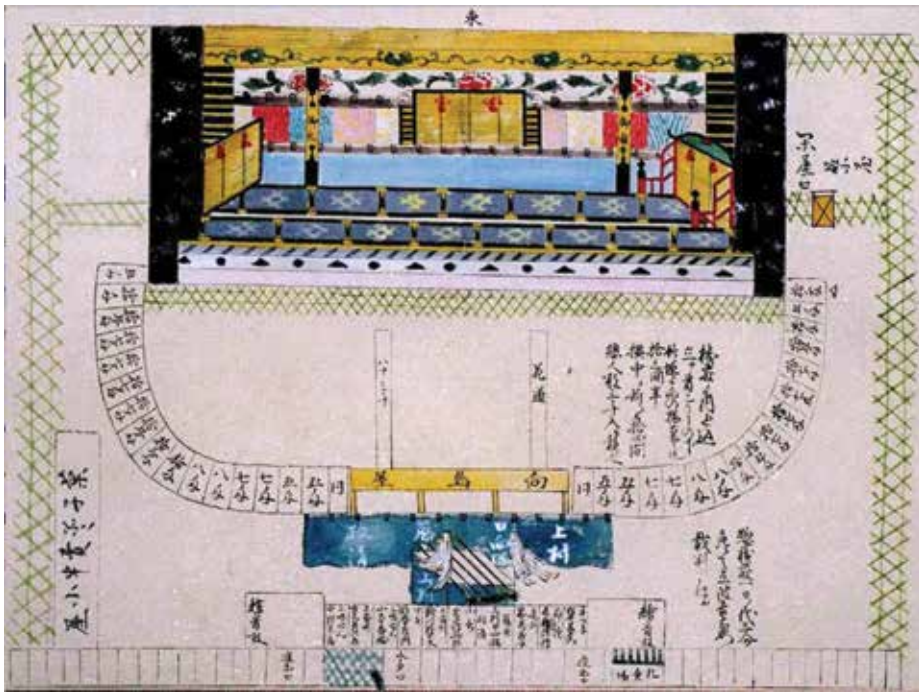
### Awaji Puppet Theatre

Before Ningyo Joruri developed as Japanese puppetry mainstream in the early 17th century, the Awaji puppets were used for Shinto rituals or ceremonies.

The size of puppets used to be small, and they were a handheld stick-style puppet (Law 2016, 45). After Ningyo Joruri became successful in performing arts in the 17th century, people from Awaji Island incorporated the performance style into their traditions, and this blended Awaji form developed successfully and gained popularity by traveling nationally.

Since Awaji Island became a territory of Tokushima-han (a feudal domain), the domain lords admired and supported the Awaji puppet theatre troupes. By the 18th century, the popularity of the Awaji puppet increased, and the size of Awaji puppets also increased to a size larger than Bunraku puppets today. The Awaji started performing in outdoor theatres, courtyards, shrines, or any space they could access for their rituals, sacred ceremonies, or folklore (Law 1995, 17-18). However, the small space did not have enough capacity for the audience because of their popularity; they only





A drawing of the outdoor stage by Seicho Chien in 1693, from *A Record of the Origin of Performance*, the possession of Hiroyuki Sakaguchi (芝居根元記 阪口弘之氏所蔵) | Image courtesy of the Awaji Puppet Theatre.

performed for 16 to 20 days in one location, with 500 to 800 audience members per day. With their growing popularity, they required larger spaces, hired more people for the troupes, and started building a temporary outdoor theatre at the sites. One of the largest audiences on record was in 1693, when the Gen-no-jo Uemura troupe went to the Tokushima castle town to perform for 1,400 people in one day. Recorded details also reveal that the company size was enormous, and they stayed there for about 14 days. They hired 20 full-time puppeteers, a popular narrator, and a Shamisen player at the time. Even though it was a temporary outdoor theatre, and one person manipulated each puppet at the time, the architecture and structure are very similar to modern Awaji puppet theatre (“Awaji Puppet Theatre”).

The size of the stage was about 14.4 meters (47 feet) wide and 11.7 meters (36 feet) deep, and 6.6 meters (20 feet) high from the ground to the ceiling. The narrator and Shamisen player used to be in the center of the stage behind bamboo blinds. Most of the audience was sitting on the ground on rented mats, priced by the thickness of the mat. Some balcony seats were available, but they were more expensive than the other seating sections

(Fudo 2002, 123-164).

By the early 18th century, there were more than 40 Awaji puppet troupes. In the early 19th century, however, there were only 18 Awaji puppet troupes. The troupes from Awaji Island tended to go on national tours, though some continued to perform in a single location only, and yet others created a new puppet theatre in the locations where they stayed. Over time, the style of puppets became influenced by the region and the local people. For instance, the puppets in the west side of Japan have sensitive and soft facial expressions and movements, but the puppets in the east side of Japan look wild and aggressive (Yoshida 2006, 4). In the late 19th century, audiences’ interests shifted to different types of entertainment, and it was difficult to grow the younger performers to pass the traditions. When the puppet troupes could not continue their business because of financial difficulties, they sold their puppets and costumes.

In the late 20th century, the local people in Awaji Island came together and established Awaji Ningyo-za (Awaji Puppet Theatre) to protect the art form from further decline (“Awaji Puppet Theatre”). As a result, Awaji puppet theatre is one of the famous theatres designated as Important

Intangible Folk Cultural Property by the Japanese government today.

## Bunraku Puppet Theatre

In the early 19th century, Bunraku Uemura (1751-1811), the founder of Bunraku puppet theatre, moved to Osaka from the island of Awaji and opened a Joruri training school, which taught Joruri and Bunrakuken, including his chanting techniques. He also actively brought trainees to his stage and maintained an open atmosphere with hands-on experiences. At the time, there were many Joruri training schools in Osaka, but Bunrakuken’s training school was very popular because other schools taught only through lectures and did not offer practical training like Bunrakuken (Kikukawa 2002, 156). In 1809, he opened a new theatre that employed experienced chanters, shamisen players, and puppeteers, securing financial stability. However, Bunrakuken’s financial stability was threatened by both religious and political pressures. In 1841, many regulations targeted Kabuki and the Joruri puppet theatre directly because the shogunate’s senior counselor, Mizuno Tadakuni (1794-1851), viewed theatre as having a harmful effect on morality. As a result, theatre numbers and locations were limited, and shrine performances were banned (Goto and Cummings 2018, 175).

Bunrakuken III continued to perform at small rented spaces or anywhere they were allowed to perform. In 1856, he was permitted to rebuild his theatre at the Inari Shrine (Namba Shrine today). In 1872, Osaka authorities offered stimulus money to licensed theatres to move to Matsushima (Nishi ward of Osaka city, today), and Bunrakuken III moved his theatre there and renamed it Bunrakuza (Goto and Cummings 2018, 177). After moving to Matsushima, the Bunrakuza puppet performance became extremely popular, and “Bunraku” became synonymous with Joruri Puppet theatre. By 1921, the Bunraku-za was the only troupe regularly performing puppet theatre. Today, Bunraku puppet theatre is managed by a performers’ association, the Bunraku Kyokai, which was established for the familiarization and development of Bunraku, supported financially by the Japanese government (Goto and Cummings 2018, 157).

The Bunraku puppet theatre stage is



Awaji Puppet Theatre scenery close-up. | Photo by the author with thanks to the Awaji Puppet Theatre.



Awaji Puppet Theatre scenery from inside. | Photo by the author with thanks to the Awaji Puppet Theatre.





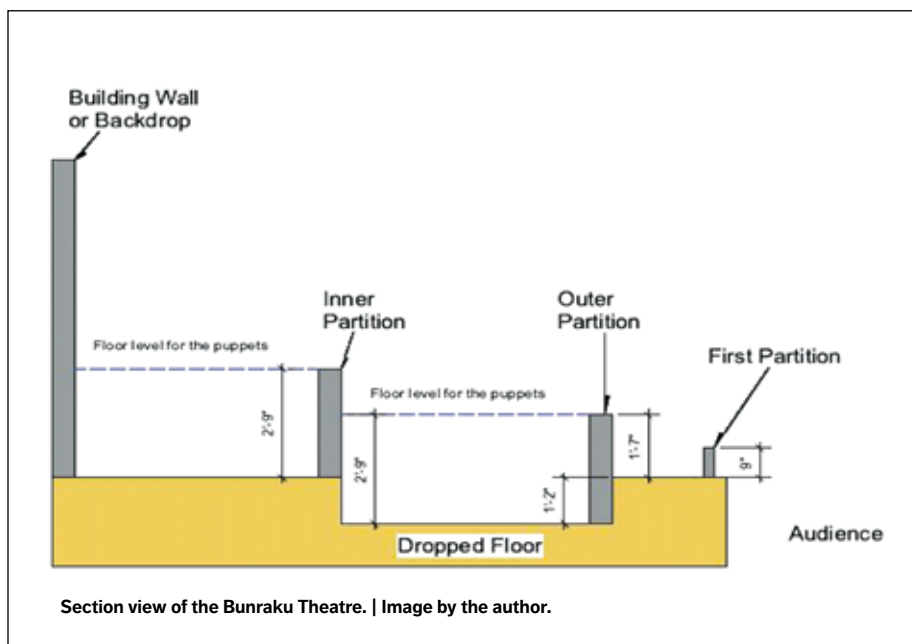
Awaji Puppet without costume from Awaji Ningyo Joruri Museum. | Photo by the author with thanks to the Awaji Ningyo Joruri Museum.



Narrator and Musician's performing space at the Awaji Puppet Theatre. | Photo by the author with thanks to the Awaji Puppet Theatre.



Life-size puppet theatre stage exhibition from Awaji Ningyo Joruri Museum. | Photo by the author with thanks to the Awaji Ningyo Joruri Museum.



Section view of the Bunraku Theatre. | Image by the author.

structured by two performance spaces. The main stage is for puppets and puppeteers, and the style is proscenium theatre. The small stage (Yuka) with the small revolving platform (Bon) is usually located at the down house right, which is for the narrator and Shamisen player. The main stage is 17.5 meters (57 feet) wide, 18.5 meters (61 feet) deep, and 6 meters (20 feet) high (Goto and Cummings 2018, 158).

A small curtain (Komaku) printed with the crests of the Takemoto-za and the Toyotake-za, two major theatre troupes from the Edo period (1603–1868), hangs at stage left and stage right. The puppeteers with puppets enter and exit the stage through this small curtain. Above the small curtain (Komaku) are small bamboo-blinded rooms called Misu-Uchi



Scaled 3D model from 国立文楽劇場 (令和4年6月 開催) 入門展示「文楽へようこそ」 (“National Bunraku Theatre Introductory Exhibition ‘Welcome to Bunraku’ in June 2022”). | Courtesy National Bunraku Theatre.

(screened rooms). Sometimes inexperienced narrators and Shamisen players are placed inside of the stage-left side of the screened room to perform for a short scene or scene changes. Flute and drum players are inside the stage-right side of the screened room. They join in the performance during lively scenes to support telling the story effectively. Note that stage-left is called “Kami-te” (upside), and stage-right is called “Shimo-te” (bottom side) because the traditional Japanese books and documentation start from right to left and are written from top to bottom.

The puppet theatre stage usually has a large wall or backdrop upstage behind the performers and three partitions in front of the upstage wall or backdrop. The partitions (Tesuri) cross the main stage width and face the audience. The partition closer to the audience (first partition) suggests the edge of the stage, which is about 9 inches. The floor between the outer and the inner partition is about 14 inches lower than the other floors. This dropped floor is called Funazoko (船底), a predominant feature of Bunraku theatre. When puppeteers wear the stage clogs and stand on the dropped floor and behind the partitions, it creates the illusion that the puppet is standing at ground level.

The narrator and Shamisen player’s small stage (Yuka) and the revolving platform (Bon) are partitioned by a wall at the center for the seamless change of the narrator and Shamisen player in the middle of the performance, because most of the Bunraku puppet performance is narrated and played by various narrators



and players by scenes or acts (“Stage of Bunraku”).

### Virtual Bunraku Puppet Theatre

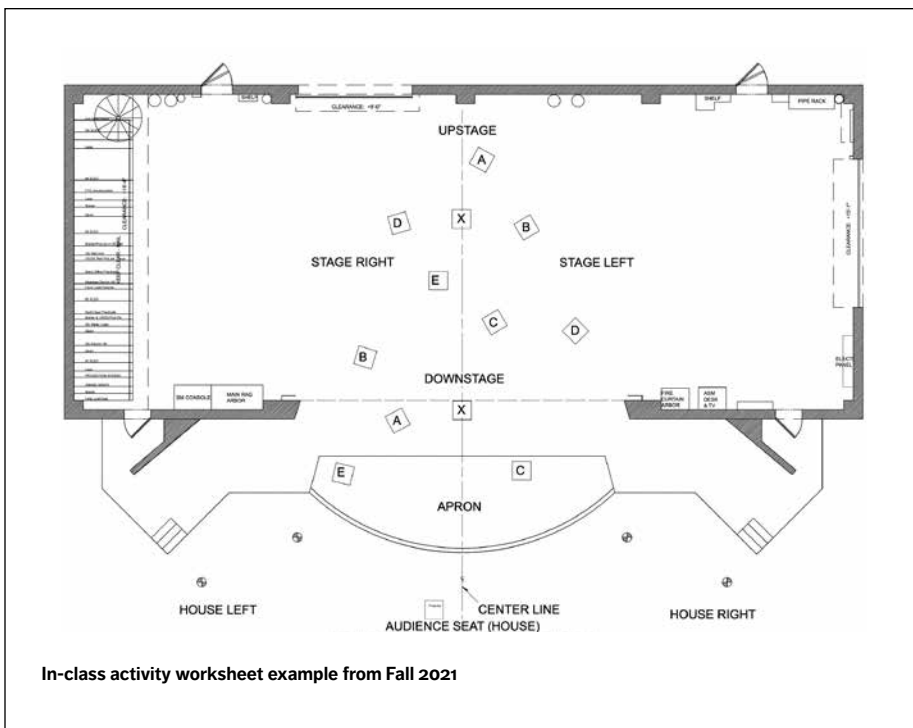
When I had a chance to walk backstage at Awaji Puppet Theatre in June 2022, the experience left me speechless. I could walk on and off stage and see and touch the scenery and puppets very close. That gave me the idea of what they see from

the stage, and most importantly, I could “experience” the atmosphere; there was a big difference between seeing pictures on a computer display because I can remember the space and atmosphere vividly, and it is easy to imagine how they use the space for the puppet performances since then. After watching the Awaji puppet theatre, I went to Osaka to watch a Bunraku puppet theatre performance.





Illustration of three puppeteers from Awaji Ningyo Joruri Museum. This performing style is for only Awaji Puppet Theatre. All performers will be standing for Bunraku Puppet Theatre. | Photo by the author with thanks to the Awaji Ningyo Joruri Museum.



Even though I could not go backstage, and there were some differences between the two theatres, I sensed what and how the illusion happened much easier because I understood the space and had experienced it at the Awaji theatre. When the narrators did not describe the puppets' actions entirely, I could not take my eyes off the puppets, because the understanding of the physical structure made me focus on the story and the puppets more than usual.

This experience also called to mind an observation learned while teaching during the pandemic, when many people realized or revalued the importance of experiential learning. We cannot ignore the benefit of online learning, but there were some limitations. Even though we had weekly live online class sessions for theatre design classes, some students had difficulties understanding design in a space with scale and proportions, because they had never



Crogs from Awaji Ningyo Joruri Museum. | Photo by the author with thanks to the Awaji Ningyo Joruri Museum.



Scaled 3D model of the platform for the narrator and the Shamisen player from 国立文楽劇場 (令和4年6月開催) 入門展示「文楽へようこそ」 (“National Bunraku Theatre Introductory Exhibition ‘Welcome to Bunraku’ in June 2022”). | Courtesy National Bunraku Theatre.

been in the theatre space or on stage. In particular, I observed that there were some gaps in the execution of the scenic design or lighting design project between the students who had been in the space and those who had not.

As one example, in Fall 2021, when we returned to in-person classes full-time, we had an in-class activity to understand the theatre stage space and the ground plan. I provided a ground plan with alphabetized squares representing the stage cube placements. Students were divided into small groups, and the groups were sorted by alphabet. They moved the cubes to the place where their groups’ alphabet is located on the ground plan. For instance, if a student was assigned to be in group A, they moved two cubes to the place labeled A on the ground plan. When we had a scenic design or lighting design project after this activity, I observed the significant differences between how students online and in person understood the space. This learning gap is likely due to students having physically experienced the process of locating the object on the stage and could use that experience to see the ground plan like a map to a known place. The process of how and where to place the scenery objects or place and aim the lighting instruments was easier to adapt for them because they could easily imagine the space, and scale and proportion were realistic because of the experience from the activity.

Armed with these two experiences, after returning from Japan, I started



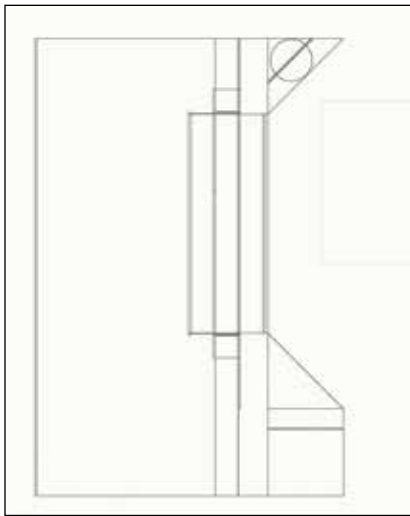
Scaled 3D model from 国立文楽劇場 (令和4年6月開催) 入門展示「文楽へようこそ」 (“National Bunraku Theatre Introductory Exhibition ‘Welcome to Bunraku’ in June 2022”). | Courtesy National Bunraku Theatre.

building a virtual 3D model space for VR and 3D printing because I could not stop thinking about students who might appreciate experiencing the space, even though it would be a virtual interaction. 3D VR spaces still provide more exposure than a ground plan or static image. Also, when I presented my virtual 3D Nohgaku theatre to students last year, they enjoyed and appreciated the experience. The virtual experience encouraged some students’ academic curiosities about theatre and Japanese performing arts immensely. I also could not forget

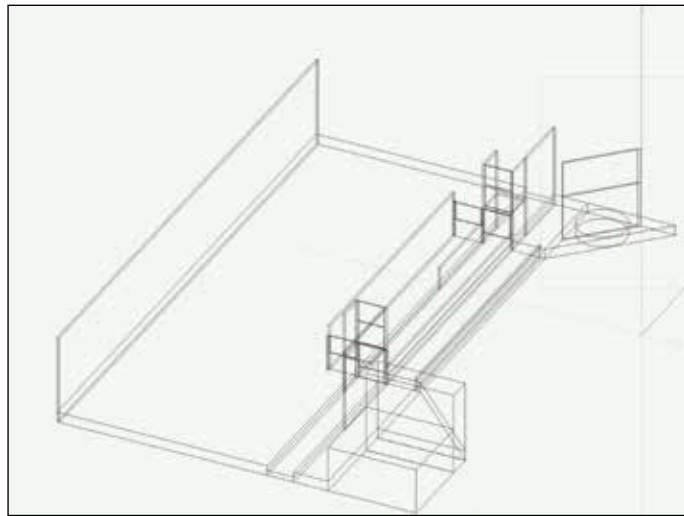
their positive reactions to the virtual experience and the differences they showed in the class assignment. The experience of touching and seeing the scenery and puppets at the Awaji Puppet theatre also encouraged me to build a 3D printing file because it left a strong memory, and physical interaction is also one of the effective ways to learn by experience.

For modeling the stage, I used a formulated scaled floor plan from The Architectural Institute of Japan’s book *Kenchiku Sekkei Siryo Shusei* to create a virtual 3D model space for this

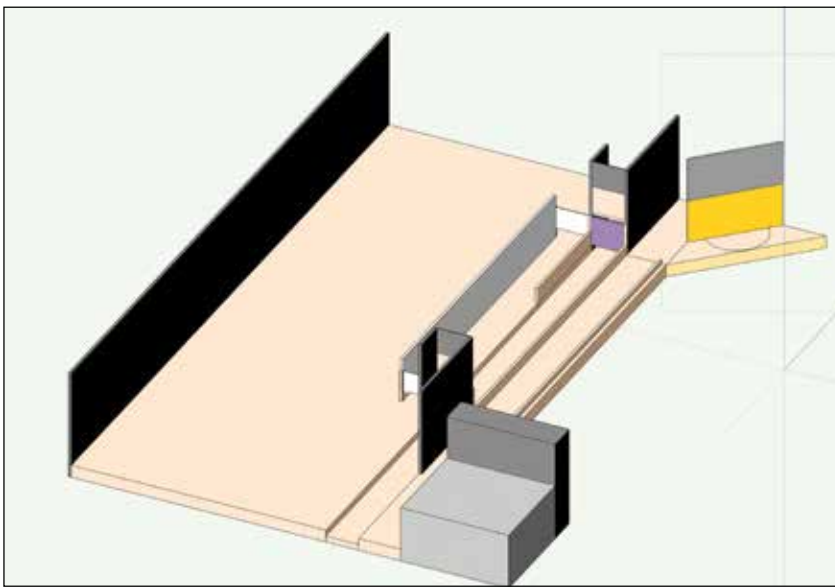




Ground plan of Bunraku puppet theatre. | Image courtesy of the author.



Isometric view of Bunraku puppet theatre. | Image by the author.



Rendered Bunraku puppet theatre. | Image by the author.

project. The book has several floor plans of Japanese traditional performing arts theatres, including the National Bunraku Theatre.

I created the VR file with Vectorworks, a computer-aided drafting (CAD) software, and Autodesk Sketchfab, a 3D modeling platform, for rendering. Theatre practitioners debate the benefits and disadvantages of using Vectorworks because of the limitation of educational licensing after graduation, and some scenic designers and technical directors prefer to use AutoCAD. I chose Vectorworks because it is both flexible and has a simple process that allows me to create entertainment designs. In my past project, a virtual 3D Nogaku Theatre, I used Enscape, a

virtual reality plug-in, but I realized that I could not render the details of the 3D model I created in Vectorworks when I walked around the VR environment. I have been using and familiarizing myself with Sketchfab for a simple VR environment, and I thought it was what I needed for this project because I could not render the details from Vectorworks. Autodesk Sketchfab is also simple to use and friendly for non-educational users by not charging fees.

Researching and visiting the Joruri puppet theatre is like opening a bottomless treasure box. Every time I read articles or watch a performance, I find interesting facts and surprises. Especially, Awaji puppet theatre is not well-known

as Bunraku puppet theatre, and the local people are passionate about protecting the essential cultural tradition.

The key to creating the successful illusion of Joruri puppets is a well-calculated stage and artisan effort. As a theatre designer and practitioner, it was hard to stop thinking about designing the scenery for a Joruri puppet theatre while I was building the virtual 3D model. In the future, I would like to design an unrealized Joruri puppet theatre production for educational purposes, which requires having the details in a VR environment and a different approach to analyzing the script. That, and discovering my new academic curiosity, is one of the great reasons for this project.

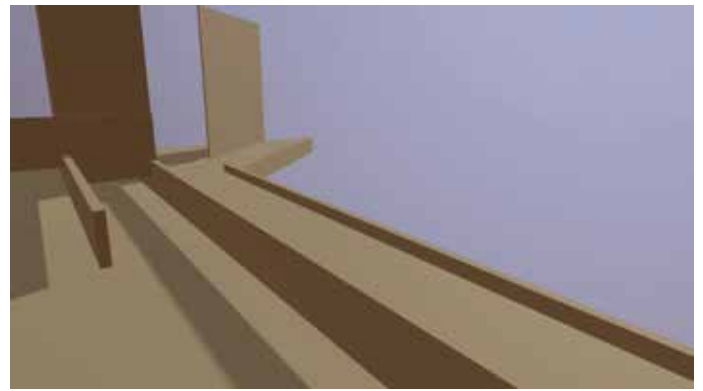


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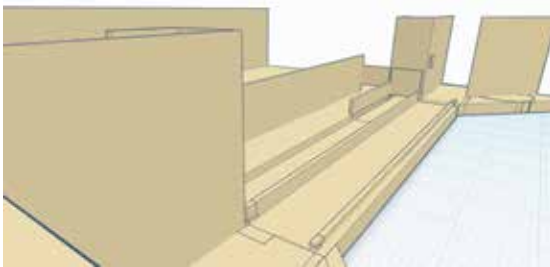
*Author's note: For theatre designers and engineers interested in printing the drawings on paper or opening the CAD file for educational purposes,*



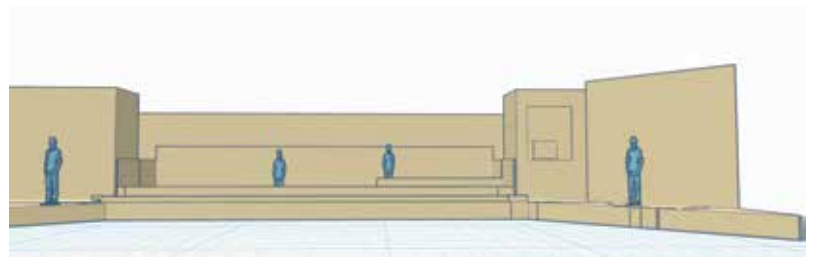
VR Bunraku theatre, a view from stage right. | Image by the author.



VR Bunraku puppet theatre, a view from on stage. | Image by the author.



3D model for 3D printing. | Image by the author.



3D model for 3D printing with the scaled figures created by Tim Howe. | Image by the author.

the scale used was 1/4"=1'0". The 3D printing file was also created with Vectorworks and Autodesk TinkerCAD software. TinkerCAD is a browser-based 3D design software that is simple to edit the 3D printing file from Vectorworks. I used the 3D polygon tool on Vectorworks from the beginning and exported it as an STL file (standard data transmission format). At this time, I created and exported the theatre as a whole, because the repair was very minimal.

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### **Digital Media, Projection Design & Technology for Theatre**

By Alex Oliszewski and Daniel Fine with Daniel Roth

Routledge, 2018, 230 pages

Hardcover \$160; paperback \$48.95; eBook \$48.95

Reviewed by Naoko Skala

Many theatre educators and practitioners update teaching materials or knowledge with technology constantly. Some are required to teach classes or incorporate newer technology on which they've never been formally trained for use in their productions. Without proper training, most of the knowledge is based on experience or gathering information from multiple resources; sometimes, it takes hours to find a simple solution. *Digital Media, Projection Design & Technology for Theatre* is an excellent resource in this regard.

Author Alex Oliszewski adapted articles from Daniel Fine's Howlround.com blog series, *Multi-disciplinary Approaches to Achieve the Best Practices for Collaboration in the Creative and Production Process of Incorporating Digital Media Into Live Performance*. The four contributors are also introduced at the beginning of the book: Boyd Branch, Sherée L. Greco, Matthew Ragan, and Ian Shelansky. The book is structured into five chapters, from defining digital media in terms of theatrical performance to detailed introductions of the devices and systems for projection design.

This book is for the vast majority of people who are interested in telling stories with new digital technologies and approaches.

The book begins with the history of digital media in theatre and the role of

digital media designers in the theatre industry. This chapter is perfect for people who have never taken formal theatre training or are interested in performing arts, TV, or film but not considering theatre as their primary career option. Atmospheric digital media and Interactive digital media sections also provided the foundational knowledge of digital media.

In the second chapter, the authors write precisely for theatre practitioners of various backgrounds and few opportunities for digital media design in realized productions. The authors clarify how other production team members work, how to incorporate digital media design, and how to integrate digital media design efficiently into their production process. The authors introduce producers, directors, stage managers, actors, and other areas of designers. I especially appreciate the scheduling section and summary of the responsibilities of digital media design personnel. Even though some are similar to scenic design or other design processes, it is beneficial to review other designers' practices and it is helpful in acknowledging concerns and how to collaborate with other designers successfully. The "Aside" sections show sample communications between a director and a digital media designer in letter format. These represent what questions might occur and how to communicate with other professionals effectively.

The third chapter covers the design process: from how to negotiate the salary to after opening the production. It includes a sample cue sheet, a system diagram, and sample projector placement drawings. Those are similar processes and paperwork with other theatrical designs, but I appreciate reading those to realize their specific requirements for an intelligent design workflow.

The following chapter provides the foundation for creating content successfully. It shows many examples of projection design with design elements and principles that communicate with readers universally. The chapter also mentions pixels, file formats, and some basics of color theory in pigments and lights. I appreciate that there are some tables of software

applications for multiple purposes, such as still images, video editing, and 2D and 3D animations. The table categories are computer platform availability, the level of the learning curve, subscription license options, price, and some other beneficial comparison sections. This chapter helped to expand my knowledge and encouraged me to use digital media design in an unfamiliar way to tell stories effectively.

The final chapter discusses crucial equipment and responsibilities, and is helpful for people with intermediate or advanced knowledge of projection design. Once I read this chapter after designing a simple digital media design for a realized production, I realized how this chapter is convenient and full of rich information. It covers the type of signals, cables, projections, and other related equipment. The chapter also has a survey of media servers, which was extremely helpful for the theatre companies or academic departments that started using digital media design in their productions. In this final chapter, the authors also introduced brightness, throw distance, screen size, and how to use multiple projectors. These details were an intricate part of the process for me to figure out before reading this chapter because your choices depend on the projector and production. Searching random internet websites was also overwhelming. Now I know what kind of information I need to figure out, and I am in good hands.

Overall, this book is written with practicality in mind. I am grateful the authors mentioned that every theatre practitioner and production has different methods or preferences. That mindset applies to any area of theatrical practice, and I would like to come back to read this book repeatedly for future productions or classes.

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