Shining Light on Museum Fashion Spectacle

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INTRODUCTION

A newer curatorial specialty for museums, fashion museology relies on performative elements to elevate fashion to an art form. Curators are cognizant of the need to make visitor's learning experience pleasurable and fashion exhibits present opportunities to create dramatic composition with inanimate objects. Theatrical lighting techniques can enliven dressed mannequins, they may be viewed as *tableau vivant* (French for 'living picture') or as an evolved *wunderkammer* (privately owned collections of extraordinary objects), inspiring wonder and curiosity. Light, sound, and theatre elements transform displays of fashion into immersive exhibitions of spectacle. Installation spectacle frames the roles of the artifacts as actors and museum visitors as audience: museum as theatre. Yet museums pose unique design challenges in that they must adhere to practices and preservation standards that limit light exposure, while at the same time designing aesthetically pleasing exhibition light levels.

In museums, lighting design helps guide visitors as they explore the galleries and plays a major role in determining how they experience art. Because art museums are largely visual experiences, the lighting provides visitors the necessary information to enjoy those experiences. In contrast to live theatre that benefits from moving bodies to transport the viewer to another time and place, exhibition design must rely on generating aesthetic presentations—using contrasting lighting and posed mannequins imitating a movement —to offer an inspired atmosphere and facilitates dialogue with the art.

This paper investigates the application of theatrical lighting design to create enchanting spectacles of fashion within a museum space. I apply knowledge and skills of theatrical lighting, sound, and production to analyze two museum fashion spectacles: *Heavenly Bodies: Fashion and the Catholic Imagination* at The Metropolitan Museum of Art, New York, 2018 and Alexander McQueen's *Savage Beauty* at Victoria and Albert Museum, London, 2015. I selected these two case studies exemplifying visually striking display, commercial success, and high fashion.

For each, I analyze lighting choices that shape the narrative and affect how visitors experience museum fashion exhibitions. I review illuminance, chromaticity, and color rendering based on significant photographic evidence from the two museum case studies. A literature review, email correspondence with a principle lighting designer of *Heavenly Bodies*, and analysis of photographic evidence from each case study support my research. The case studies share an element of subversion in their dramatic displays that invoke a captivating spectacle; fashion exhibitions forgoing a chronology of historical garment display in favor of an artistic atmosphere of contemporary styling and viewing practices.

SPECTACLE

Wunderkammer: Precursor to the Modern Museum

Origins of sophisticated art collections began in the Renaissance age of discovery with European cabinets of curiosity lasting throughout the 16th to 17th centuries. Wondrous and extraordinary collections of rare, valuable, historically important or unusual objects were compiled by noblemen or scholars for study or entertainment and stored in *wunderkammer*, or chambers of wonders. (MacGregor, 2007). The chambers tended to be

Fig. 1: Engraving from Ferrante Imperato, earliest illustration of curiosity cabinet (1599)

the private reserve of rich or royal aristocracy with the means to indulge their passion for bringing together natural and artistic objects, often displayed together in ornate cabinets. The *wunderkammer* collections were showcased in multi-compartmented cabinets, that grew to entire rooms, and were arranged so as to "inspire wonder and stimulate creative thought" (Putnam, 2001). Power associated with curiosity cabinets stemmed from their private ownership and display in homes and palaces, accessible only to the elite. These collections reflected the power and the wealth of the owner as well as mirrored their worldview and state of knowledge at the time. The first pictorial record of a curiosity cabinet (Fig. 1) comes from Ferrante Imperato, an apothecary of Naples, Italy and was published in *Dell'Historia Naturale 1599*.

Collectors inhabited a world populated with objects produced in other countries—*wunderkammer* provided a vehicle for interpreting and displaying the world through objects and their relationships during the 16th – 17th centuries. Curiosity cabinet owners actively sought out objects which appeared to subvert the boundaries between reality and fantasy, life and death. The cultural and intellectual movement of the Renaissance gave way to the Protestant Reformation and scientific revolution that led to the Age of Enlightenment—an intellectual movement that dominated the world of ideas in Europe in the 18th century. The Enlightenment ushered in the culture of the "public sphere." Previously private collections were converted into public exhibitions and the definition of museum became tied to the specific building that housed collections for public view. These formerly private collections of *wunderkammer* became the precursor to the modern museum.

Tableau Vivant

Following the Age of Enlightenment and growth of the public sphere, the Romantic Era of the early 19th century galvanized the "aesthetic experience" by emphasizing intense emotions such as awe, wonder, and surprise (Braembussche, 2009). Growing middle class segments across Europe began studying literature, philosophy, and the fine arts subject matter that the general public could relate to. Ordinary citizens were invited to build knowledge and cultural capital through newly organized disciplines and displays:

the national museum. Simultaneously, during the Romantic movement it became a fashionable pastime to dress up in historical costume. A popular custom of the upper and middle classes was to create a 'living picture' where costumed models posed with props to recreate static scenes or art works. Known as *tableau vivants*, the living pictures theatrically recreated paintings or photographs, often with special lighting or scenery. The presence of living models gave life to historical garments and when performed, *tableau vivants* combined elements of the visual arts and theater, and provided entertainment. Undoubtedly the theatrical showmanship of the *tableau vivant* influenced the display of historical fashion. Once the garments could no longer be energized by live models, museums implemented elaborate mannequin staging to evoke familiar moments (Petrov, 2019). Mannequin actors on semi-furnished vignettes link the image of a body to an action, according to Sarah Schneider, "a realistic mannequin, though still, appears to have just acted or be about to act" (Petrov, 2019). By creating implied choreography by posing the mannequins, an element of performativity is added to the museum displays. The designed nature of the space then sets the stage for museum visitors to participate in the display and question what they take away from the experience. The spectacle of the installation makes it possible to frame the role of the artifacts as actors/players and museum visitors as audience: museum as theatre.

Museum Fashion Spectacle

New conceptual forms of exhibition design rely on performative elements to elevate fashion to an art form. In parallel with a passionate theatrical production, an enchanting fashion exhibition creates a transitory sense of magic, an "of the moment" feeling with museum visitors fully transported to another time and place. Museologist Mary Riegels Melchior theorizes that fashion at the museum reached a turning point in the 1970's with museums pivoting away from building up collections with a purpose of writing costume history (Melchior, 2011). Rather than an object-based approach of displaying historical garments linked to a certain population or culture, modern fashion museology emphasizes innovative displays, aesthetics, and attracts record numbers of museum visitors. Fashion exhibitions, especially 'blockbuster' events, reach new museum audiences across demographics of age, profession, education, or socioeconomic status.

The collection and display of garments is a newer curatorial specialty for museums, with the title of Dress Curator created only in 1957 at the Victoria and Albert Museum, which had opened in 1852 (Mida, 2015). Prior to incorporating the dress curator's sophistication, museums originally preserved cultural heritage through garment collections worn by indigenous people. Displays of historic dress were scholarly exercises in terms of research, registration and conservation of the garments. Most of the displays were to present a dimly lit, historic and didactic review of dress (Mida, 2015). The Fashion Institute of Technology Museum Director and Chief Curator, Valerie Steele, surveyed the history of fashion exhibitions in museums and revealed the 1960's signaled the importance of fashion in museums not only through increased numbers of fashion exhibitions and viewers, but also in the significant expansion of the dialogue about presentation (Steele, 2008).

An allegory of contemporary culture, fashion has peppered the museum world's programming in a noticeable way. "Fashion exhibitions have evolved from historical presentations equated to cemeteries for dead clothes into new forms of creative and immersive installations that incorporate light, sound, and performative elements" (Mida, 2015). These spectacular exhibitions lure hundreds of thousands of people through the doors of blockbuster shows such as Alexander McQueen's *Savage Beauty* staged at both the Metropolitan Museum of Art (the Met) and Victoria and Albert (V&A), where the focus is on the immersive, creative, and dramatic environments.

Considered a fashion stylist pioneer, Diana Vreeland left *Vogue* magazine in 1972 to consult with the Met's Costume Institute and energized the idea of the costume exhibition with inventive displays (Mida, 48, 2015). Vreeland's exhibitions reinforced the idea that fashion is truly an art form with real cultural impact, one worthy of consuming in a similar context as "traditional" artwork like sculpture and painting. Thus, she reinforced the role of fashion in art and invited people to experience and think about costume in a new way. Rather than just a display of historical garments—which prior to Vreeland had been staged either as a specific designer's retrospective or historical collection in

chronological presentation—staging fashion in museums became a dramaturgical experience and an area of design that excited people (Mida, 48, 2015). Decades later in 2008, Valerie Steele authored an article for *Fashion Theory* magazine in which she examined the growing significance of fashion exhibitions in museums echoing Vreeland's notion that inventive displays invigorated interest. "I have always believed that visitors should be—want to be—actively engaged in thinking about what they see. I also believe that the museum fashion exhibition can be a site of innovative scholarship that it can—and should—make a serious contribution to our understanding of fashion. And it does not need to be frumpy to do so. Quite the reverse" (Steele, 2008).

MUSEUM LIGHTING

The ways in which humans describe, measure, and perceive color and light have been well-studied and written about across scientific and artistic disciplines. This section addresses some fundamental concepts of light that impact how it interacts with both viewers and objects in a museum context.

A walk through a maze of uniformly lit, repetitive gallery corridors will cause visual fatigue in even the most ardent art lover. Each of the thousands of works in a museum's collection tells a story and curators and lighting designers give them a voice. Great care is taken to ensure that galleries educate, stimulate, and enable visitors to emotionally and intellectually respond to the works. Ideally, the physical environment should be a harmonious blend among the space, light, and objects. And yet, the museum has great responsibility to balance visitor experience with protecting the works. Whether a museum focuses on science, history, contemporary art, archaeology, or music, modern exhibitions rely on artificial lighting to illuminate their spaces and educate their publics.

Significant design challenges arise from the need to both preserve the art works and create exhibition lighting that is aesthetically pleasing. The continual consideration of museum lighting centers around these concerns of Exhibition vs. Preservation. A synergy exists around the need to: 1) apply light to create an expressive setting, 2) fulfill

functional visual requirements and safety code for visitors navigating around a museum, and 3) prevent irreparable damage from light that causes deterioration to sensitive objects. Despite the museum's role in preserving cultural heritage, *light* ranks high among the causes of deterioration in museum collections. According to the Canadian Conservation Institute, light tops the deterioration agents list, which also includes: incorrect humidity and temperature, pests, fire, water, thieves and vandals. Objects most sensitive to light include organic material documents and letters, artwork on paper, textiles, clothing and accessories (Ajmat, 2011). Other controllable environmental conditions—humidity, air temperature, pollution, and daylight—can trigger damaging effects to the objects. Light is considered particularly nefarious to artwork as it heightens detrimental effects over time: the effects of light are cumulative and the absolute measure of light's effect is that of total exposure over time (Ajmat, 2011).

Across the light spectrum, three frequency ranges of light "energize" chemical reactions to objects: ultraviolet (UV) radiation, visible lights, and infrared radiation (Gillette, 2014). While minimizing UV exposure to objects is helpful in preventing deterioration, any spectrum of light produces energy that can drive reactions resulting in chemical or heat damage to objects. Two main categories of damage result from the effects of light and UV radiation: color change and structural damage. Both organic and inorganic materials can sustain color changes, but organic materials (i.e. textiles, paper, and natural colorants derived from animals or plants) are much more susceptible than inorganic ones (i.e. ceramics, enamels, glass, plastic). Lighting designers must find equilibrium between lighting fragile artwork as dimly and for as little time as possible and yet making them visible enough for visitor engagement. It's a delicate balance that Smithsonian American Art Museum lighting designer Scott Rosenfield said in an interview with Eaton, "If the light is brighter than it needs to be, or if the light is too dim for people to enjoy the object, we're not using the life of that object as well as we could. This wastes energy as well! When we're working with precious and fragile objects, we have to make every photon count" (Eaton, 2017). Unlike other public and commercial spaces where the primary considerations are minimum light levels for egress and code compliance, in the museum maximum levels must be considered. For instance, an exhibition loan of charcoal works

on paper may be accompanied with instructions for lighting not to exceed 5-10 footcandles for 12 hours a day.

When exhibitions contain numerous objects in a single exhibition, lighting designers must conceive a cohesive design that accommodates for multiple scenarios: is art hung on the wall or displayed in a glass case? What color is the wall where it hangs? What color is the floor and is it tile or wood? Are there windows nearby? Are there vaulted ceilings or unique architecture to consider? Is the space better suited for using deep or shallow angles? Where does the object label or wall text go? Are nearby objects similar materials?

At its core, lighting design is about controlling what is highlighted and what is shadowed to help tell a story. And storytelling is a museum's chief responsibility. Lighting designers affect mood and support narrative primarily via four controllable qualities of light: intensity, color, distribution and movement. Just as actors play different roles in productions, artwork performs in an exhibition. A museum masterpiece deserves visual focus like a lead actress in a spotlight.

According to the Illuminating Engineering Society (IES), when making lighting choices that effect how visitors experience color in the museum environment, there are three main factors to consider when deciding how much light we need to see our environment:

1. **Illuminance**: measures how much light illuminates the surface (measured in lux or footcandles with a light meter)
2. **Chromaticity**: describes the hue and saturation of the lighting source (Corrected Color Temperature)
3. **Color rendering**: describes how well a particular lighting source reveals colored objects (Color Rendering Index or CRI)

Illuminance measures how much light hits a surface, which allows us as humans to see the object and influences how colorful museum objects appear. The IES identified the main qualities that effect our visibility: a) viewer's age, b) object's value [something dark

or low value will require more light than something of higher value that is more reflective], c) contrast of details [higher contrast such as black ink on white paper], and d) size of details [more light needed to read smaller text]. When viewers perceive differences in displays, whether slightly noticeable or emphatically different light levels, those differences are associated with illuminance and how much light is bouncing back to a viewer. Lower light levels—and therefore lower illuminance—decrease objects' colorfulness and can impact the human eye's ability to differentiate between colors.

In measuring chromaticity or the color of light, corrected color temperature (CCT) allows us to compare light output to that of white light. The human flexible visual system will accept color temperatures from 1,900K to over 6,000K as "white light" (Livingston, 2014, 112). Technically, the concept of color temperature applies to incandescent light sources and all non-incandescent light sources—such as LED, fluorescents, OLED and plasma—are described using corrected color temperature (Fig. 2).

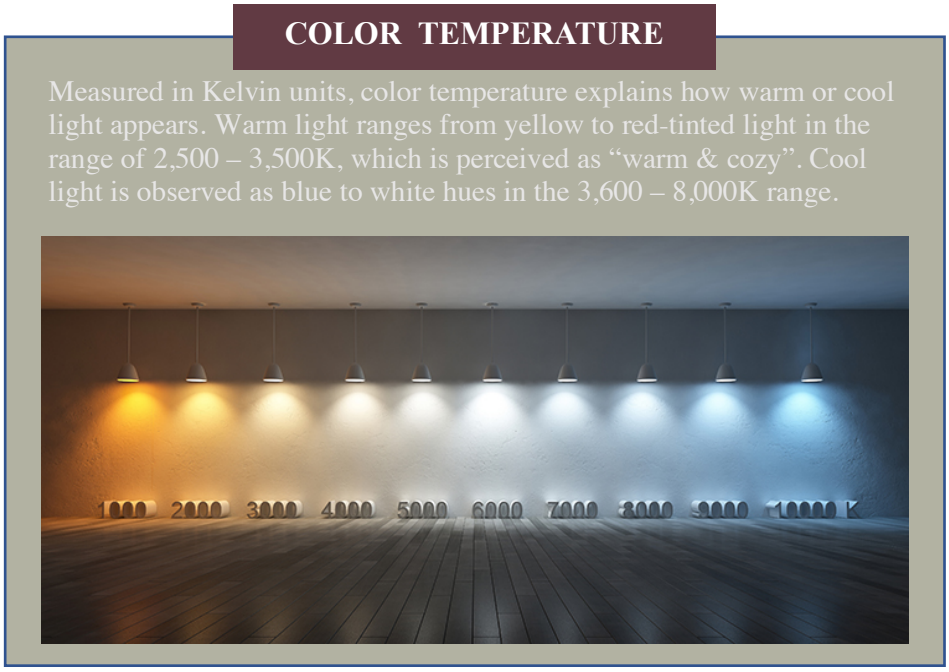


Fig. 2: Kelvin Scale Breakdown, image credit: Shutterstock

Most objects are color-inconstant but after approximately one to two minutes of looking at an object our eyes chromatically adapt so that objects that are a few hundred or thousand Kelvin different no longer appear different (IES, 2018).

Any one light source may render color differently than a reference source and to fail to reveal large portions of the color spectrum. “Color rendering is a measurement of how well a given light source enables us to discriminate colors viewed under that light source when compared to a standard light source” (Livingston, 2014, 113). Simply put, lamps with low color rendition causes color to appear muddy, grey, or indistinguishable from other colors. These light sources would not be ideal in museums where art is best seen in the environment that replicates where it was created. Therefore, a color rendering index (Fig. 3) provides a scale of color fidelity and falls between 1 to 100, with natural light equal to a score of 100. Recommended practice for museum lighting says that a light source with CRI of 80 produces color shift that most people notice, making a CRI of 80 the minimum acceptable standard (Livingtson, 116). This value is also the threshold to be considered Energy Star efficient, or meeting strict US Department of Energy efficiency criteria to help save money on electricity costs and protect the environment.

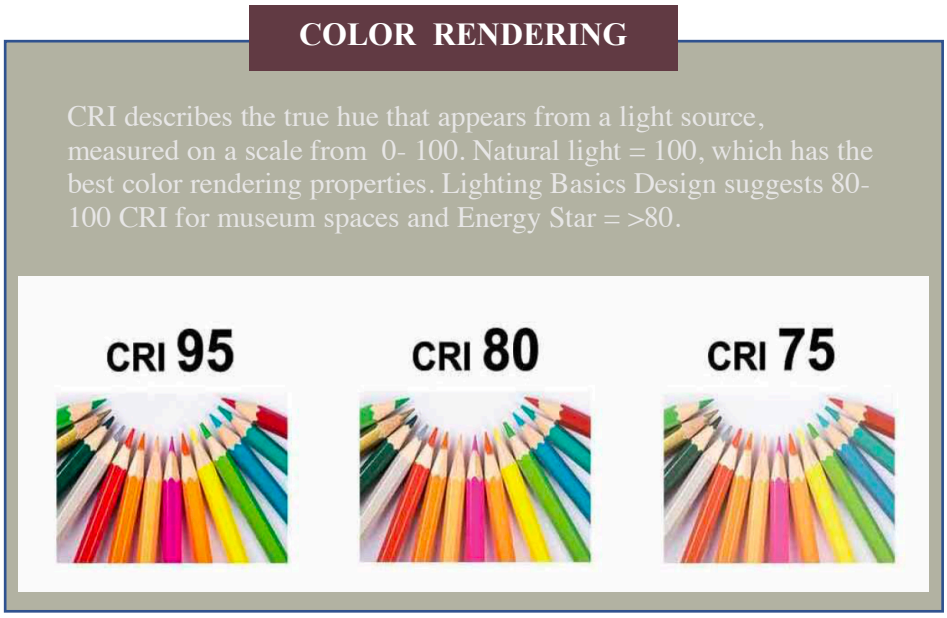


Fig. 3: Color Rendering Index, image credit: Lightforce

While light source technology transforms the way in which viewers see the world’s great treasures, how they are employed also play a significant role. Composing the museum’s architectural and object lighting relates to the controllable quality of light called distribution. Ideally, lighting designers create a clean relationship between the

environment's surroundings and the display objects—this can be achieved through layering light with dedicated wall washes, floor washes, and object spotlights. Seemingly simple, creating an even and smooth wash on white gallery walls is actually quite complex and may require precise adjustments to prevent distracting scallops on the wall above the artwork. Museums around the world utilize track lighting systems which allow for individually placed and controlled fixtures to provide many points of illumination. However, when track lighting is poorly executed, the fixtures themselves can create glare and distribution problems. To smooth object spotlights and diffuse some of the beam spread, museum lighting designers have adopted theatrical lighting techniques and technology. These include gobos to create interesting textures, and gels to manipulate color and diffusion. Many museums are incorporating LED lamps and color-changing fixtures that are controlled remotely, similar to a theatrical lighting control system.

I'd be remiss to not include accessible exhibition design concepts that account for people with disabilities in a museum's diverse audience. Lighting distribution also fulfills ergonomic needs of visually defining the walls, floors, and pedestals at acceptable levels for safe navigation and egress. People with low visual acuity can have difficulty with depth perception and color contrast. Directed light can differentiate horizontal from vertical surfaces on paths. Museums around the world are creating guidelines and documents that offer workable solutions for designers, curators, educators, conservators, and other exhibition team members to provide accessibility standards.

Museum lighting is a combination of architectural, exhibit, theatrical, task, and event lighting—complex elements performing multiple functions. Smartly designed museum lighting creates a narrative with international audiences and connects people creatively to ideas, cultures, and art. As visitors walk around the museum, they are invited onstage to become part of the scene.

THEATRE LIGHTING

A theatrical lighting designer determines everything an audience sees on stage. Much more than simply illuminating a space, effective lighting design ties all of a production's visual elements together; crafts suitable moods, sets the time of day, and creates spectacle to heighten the audience's understanding and enjoyment of the production. When people watch theatre, they engage emotionally and conceptually with their surrounding stimuli and choose for themselves what they conclude to be significant. The history of theatrical lighting design and notable lighting designers is well documented. With this in mind, I examine the use of artificial light in performing arts through an artistic framework and personal design process to influence theatrical events.

Light is everywhere. The world we live in everyday is revealed to us depending on the quality of light and how it gets manipulated. According to Gillette, theater lighting designers use light to achieve five primary goals: 1) influence the audience's perception and understanding of what they are seeing, 2) selectively illuminate the stage, 3) sculpt, mold, and model actors, settings, and costumes, 4) create an atmosphere that is supportive of the play's production concept, and 5) convey the environmental circumstances of the scene—time of day, atmospheric conditions to help "tell the story" of that particular moment in the play (Gillette, 4, 2014). So, what makes theatrical lighting desirable—why do people want it? What separates it from other types of lighting, such as industrial environments, healthcare facilities, office spaces, or places of worship? The aforementioned lighting fields respond to the functional, technical, architectural, and spatial necessities of projects and typically involve collaboration with architects, engineers, urban planners, or interior designers (Descottes, 2011). For instance, healthcare lighting must consider the functional components of light for providers to safely perform procedures, for patient-centered emphasis on healing, and task lighting for administrative staff. In addition to those functions, many hospitals strive to meet sustainability and energy requirements while incorporating the therapeutic value of daylight into their designs (Beales, 2009). By contrast, theatrical lighting is purely aesthetic.

Process

Theatrical lighting designers (LD) are hybrid creators: simultaneously visual artists and technicians. How audiences perceive color in objects, costumes, actors, and scenery directly ties to the lighting designer's proficiency in composition and design. An unexpected but essential component of lighting design is darkness. Yes, one must see what needs to be seen, but once the necessary psychophysical aspects of light perform their job, then the lighting designer's true power is revealed. What areas stay dark? What is hiding in the blackness? Where is the beauty or the mystery or the suspense? If the theatre had no light, would audiences come sit in a dark room? Darkness is a powerful tool in the designer's cache.

Designs do not emerge fully formed, but require research, script analysis, brainstorming, and experimentation. In collaboration with fellow designers (i.e. scenic, costume, sound, projections), the director, playwright, and a production team, the lighting designer develops ideas to produce a cohesive visual presence of everything on stage. As an MFA Lighting Design student in UVA's Department of Drama, I participated in the design and production process and worked with a team that brought forward fully realized productions. Generally, in the early stages of the design process, lighting designers extract themes from the script and discuss characters, periodicity, style, and color. Prior to conducting research, I found it useful to discuss the environments, atmosphere, and emotionality with the director and design team so it would guide my investigation. After digesting the script, I explored images, art, and magazines to collect content for a character mood board. As an example, I created the collage below (Fig. 4) to capture my ideas and responses to the play *Canaan*, a 1960's civil rights era production set in Washington, D.C. Contemporary theatrical lighting techniques afford the ability to create myriads of effects, on stage but light's abstract nature may make it difficult to convey design ideas during the pre-production process. The costume designer presents fabric samples, shoes, or wigs, scenic designers build models and discuss paint treatments, sound designers compose scoring, but until lighting instruments are hung in the space and

Fig. 4: *Canaan* Research Collage, image credit: Julie Briski

programmed, there is no effective way to show precisely what the final lighting effects will look like. However, with a range of creative media, lighting designers sketch story boards or render images in programs like CAD or Adobe Photoshop to translate light and shadow or scenic isolation (Fig. 5). This allows the director and other design team members to get an idea of the light qualities and textures the lighting designer intends to create during the technical rehearsal (Fig. 6).

Fig. 5: *Canaan* rendering in Adobe Photoshop, image credit: Julie Briski

Fig. 6: Production photo nighttime look, *Canaan*, image credit: Julie Briski

Once the scenic designer crafts the set's ground plan, the LD and director identify likely acting areas so the LD can visualize how light will move through the space, sculpt actors, and highlight scenic elements. Then the LD begins the iterative process of drafting lighting instruments in the performing space. The position, angle, and color of each light is designed to fulfill the mood of the scene as dictated by the script. Both the architecture of the theatre space and scenic elements influence lighting positions, or the ability to identify locations where lighting fixtures make unobstructed shots onto the stage. With the support of photometrics, or the analysis of how a light leaves a fixture and goes into the surrounding area, the LD can assess the distribution of a given fixture to know if it is

appropriate for the designated area. Photometrics aid in selecting the type and quantity of fixtures as well as determining if unwanted beams would fall into audience's faces or pose sight line concerns. Many techniques exist to sculpt light on subjects (i.e. three, four, five point lighting methods) but it's imperative the LD factor in budget, inventory, and technical time when designing the light plot. These aspects of lighting design shift priority onto more of the technician "hat" that the designer also wears. Drafting of lighting instruments onto the light plot also identifies equipment needs and any accessories (i.e. templates, gel color, scrollers, top hats) envisioned for the production. Accompanying paperwork including an instrument schedule and a channel hookup provide additional information for the master electrician and his crew to properly hang and circuit the plot.

Once lights are hung, the LD holds a "focus call" and with the aid of the crew of electricians, adjusts each fixture and accessory as they are intended for the production. A tedious process, it's imperative the designer remains attentive and engaged to prevent the need for re-work to make corrections. During the ensuing process, directors may change actor blocking or relocate scenery to another part of the stage and these adjustments certainly can impact lighting. These instances call for discussion or negotiation with the director to relay the impact of those decisions and any possible alternatives.

After the lights are focused and scenic elements in place, the artistry of lighting design truly begins. Rooted in the research and in concert with the script, designers create lighting looks and moments using the lighting console and building lighting cues. At last, the LD brings to life all the conceptualization, visualization, and rendering that informed the light plot. This is when I learn whether my photometrics were correct, that light beams fall where I intended and their intensity, distribution, and color align with my design. During *Canaan*, I realized that the red paint treatment on the porch was really muddied by my warm front light system. The front light's amber hue, when added to the chroma of the red porch didn't mix well on either the set nor the actors—I felt the actors lost dimensionality and appeared "flat" when standing on the set. Given the minimalistic set, consisting of a door and elevated platform (Fig. 7), I expected to rely on lighting to

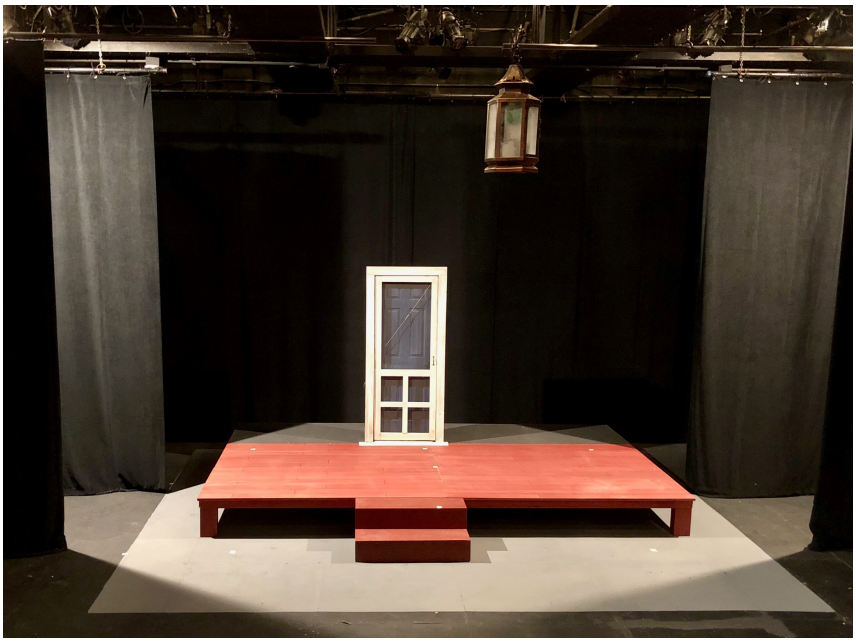


Fig. 7: *Canaan* set under work light, image credit: Julie Briski

take the audience through different times of day and night, to indoor and outdoor locations, as well as build the emotional arc of the story. I went back to the gel swatch book and reevaluated my options for a front light system that complimented my cool system and accentuated rather than hindered the visibility. Additionally, I created custom gels combining strips of gel colors to create an hombre effect in the leafy textured patterns, crafting a more naturalistic setting for day and night (Fig. 8). Pressure grows during technical rehearsals as LDs set lighting levels, write light cues, and adjust timing of scenes in concert with action on stage. Cue prompts emerge from both physical action as well as lines in the script. In collaboration with the actors, stage manager, and other relevant designers (i.e. sound or projection) the production team identifies when and where cues should be called and practice the timing of each element.

Fig. 8: *Canaan* set with custom gel & leaf texture, image credit: Julie Briski

During the *Canaan* technical rehearsal process, I experienced the synergy of new ideas in talking with the playwright and director—looking back, I believe all of us being in the space, on the set, with actors in costume we could visualize an alternative ending. Our brainstorming resulted in my creation of a new look for the play's final moment that was different from the one I had previously envisioned. I used a gobo rotator with glass textures and saturated gel colors to create a flaming fire projected onto the set and upstage masking. The powerful result met with positive feedback on opening night, which assuaged my concerns about how it would be received and whether it felt believable to the audience. Lighting is the glue that unifies design elements. When executed well, lighting highlights the scenic and costume designers' work and often compliments the sound designer's composition. Lighting immerses the audience and invites them to enter the action of a performance.

CASE STUDY 1: *Heavenly Bodies: Fashion and the Catholic Imagination*

Beginning with Diana Vreeland's time at the Met's Costume Institute (CI) in the 1970's and 1980's, the CI developed captivating costume exhibitions and set an extraordinarily high bar for exhibitions around the world. In 2002, curator Andrew Bolton came onboard to the CI, ascending to Curator in Charge in 2016 (The Met Museum, 2020). During his tenure, Bolton has curated some of the Met's most visited exhibitions, including the 2018 blockbuster show *Heavenly Bodies: Fashion and the Catholic Imagination.* Shattering all previous Met attendance records, *Heavenly Bodies* drew an astonishing 1,659,647 visitors, elevating it to the museum's most popular exhibition of all time and breaking the record set by *Treasures of Tutankhamun* in 1978 (Artnet, 2018). Intertwining displays of religious vestments and objects on loan from the Vatican, with prominent fashion designers such as Versace, Alexander McQueen, and Chanel proved a magnetic draw. The Met's exhibition programming incorporates only one or two special exhibitions from the CI every year, with the remainder of its exhibitions generated from within its other 16 curatorial departments. In concert with the Met Gala—the premiere benefit event drawing celebrities and social elite to raise funds for the costume institute's programming—the CI reveals its annual exhibition to great fanfare. Each year the curatorial team assembles a design team of architects and exhibition designers to develop a general concept for each CI exhibition. The exhibition design team of Diller Scofidio +Renfro (DSR) defined the concept for the *Heavenly Bodies: Fashion and the Catholic Imagination*, and according to their website, "the installation plays on the preeminence of light within the Catholic space" (DSR Website, 2018). DSR designed schematic casework and concepts for more theatrical moments within the exhibition and they hired a theatrical lighting designer consultant to determine how the concepts would best be realized. The architectural lighting design team of Tillotson Design Associates (TDA) and the theatrical consultant, John Torres, collaborated throughout the design and installation process to strike a well-rounded balance which enhanced both the architectural and theatrical lighting (Arikol, 2020).

Applying my knowledge and skills of theatrical lighting design, I analyzed the *Heavenly Bodies: Fashion and the Catholic Imagination* exhibition to assess the aesthetic dimensions of light applied to fashion in the museum setting. Additionally, I corresponded with TDA's senior designer who worked with both the theatrical lighting designer and exhibition design team, Amanda Arikol, to get unique insight and perspective to the exhibition.

As previously discussed in the museum lighting section, light levels on sensitive objects such as organic textiles require great scrutiny and restraint. In order to display the borrowed papal garments and artifacts—many of which had never before left the Vatican—the Met agreed upon a set of exhibition and conservation requirements for the duration of the show. The conservation requirements originated from the loaning institutions and to protect the displays, the CI enforced a strict limit of 10 footcandles for most garments, with some ultra-sensitive garments limited to 5 footcandles maximum. (For comparison's sake, museum viewers typically read wall text that is illuminated with 10 to 30 footcandles of light, in alignment with museum accessibility standards.) Per Arikol, the papal garments were closely guarded by a representative of the Vatican collection who supervised the protection of those delicate pieces throughout installation.

Curious as to whether a renowned institution such as the Met incorporated more current LED technology into their exhibition lighting, I inquired with Ms. Arikol at TDA what predicated their fixture and lamp selection, as well as any examples she may offer. She responded, "The existing infrastructure of the museum dictated much of the fixture selections. Because of the temporary nature of the exhibition, we conducted extensive photometric studies to accommodate the use of existing track locations. The Met utilizes track and fixtures from several different manufacturers, varying from gallery to gallery, most of which are halogen fixtures utilizing PAR36, AR111 and MR16 lamps. The fixtures are not all equipped with on-board dimming, so to incrementally dim each one required the use of screens with varying density. The use of halogen presented a particular challenge in the CI gallery, where the "otherworldly" concept required a cooler color temperature. As a result, the MR16 fixtures were outfitted with a custom

combination of ROSCO color correction gels, which were cut to size and installed in the field".

Of note, all three of the halogen lamps Arikol mentions emit a 3000K color temperature prior to dimming or incorporating any accessory screens. Upon discovering that all the lamps for this exhibition were 3000K, I wondered: Is there such a thing as a "right white" for gallery lighting? Ms. Arikol indicated that factors such as tonal and color qualities of the display surfaces, illumination levels, and the spectral composition of the artwork itself influenced personal preference for "white light" on vibrant or muted colors. Additionally, Ms. Arikol relayed that one of her greatest challenges for this installation was creating a lighting contrast which emphasized the exhibit garments, without allowing them to get lost among the surrounding artifacts of the Met galleries. The solution was to re-focus many of the fixtures which were lighting the surrounding surfaces and objects throughout all galleries, which included re-aiming, adding screens and accessories, and removing fixtures. The lighting team conducted the re-focusing in consultation and supervision with the curators—for the respective galleries at both the Met's Fifth Avenue and the Cloisters locations—who advised which of the artifacts should remain at different levels of prominence. The result allowed the exhibition garments to stand out even at the lower required light levels (Arikol, 2020).

Reflecting on Ms. Arikol's statement about needing to re-focus the gallery fixtures, I made the connection to the stage lighting technique of crafting selective visibility: by illuminating different parts of the stage or set, I show the audience exactly what I want them to see. Because the *Heavenly Bodies* exhibition was installed in the galleries already containing objects, she needed to re-focus museum visitors' attention toward the garments and subtly de-emphasize the surrounding artifacts. Composing environments with stage lighting paints the picture of a scene and shapes the audience's perspective. Employing techniques such as high side light, cast shadow, spot lights, and back light are expected in stage lighting. But what is "normal" in a theatre becomes spectacle in a museum.

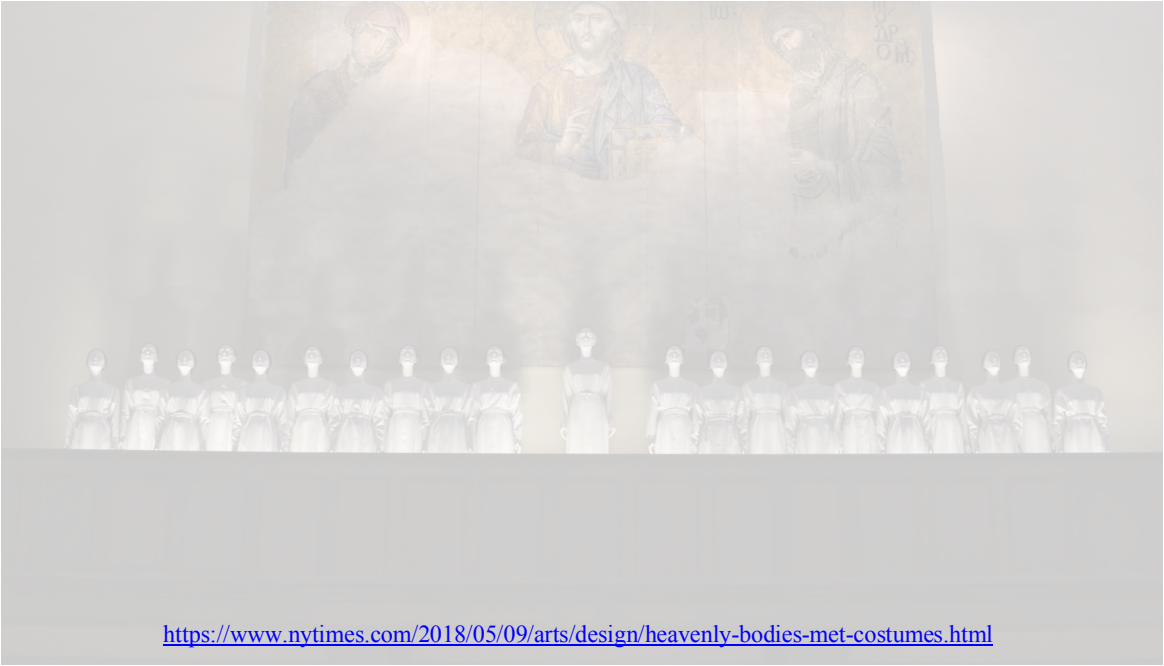
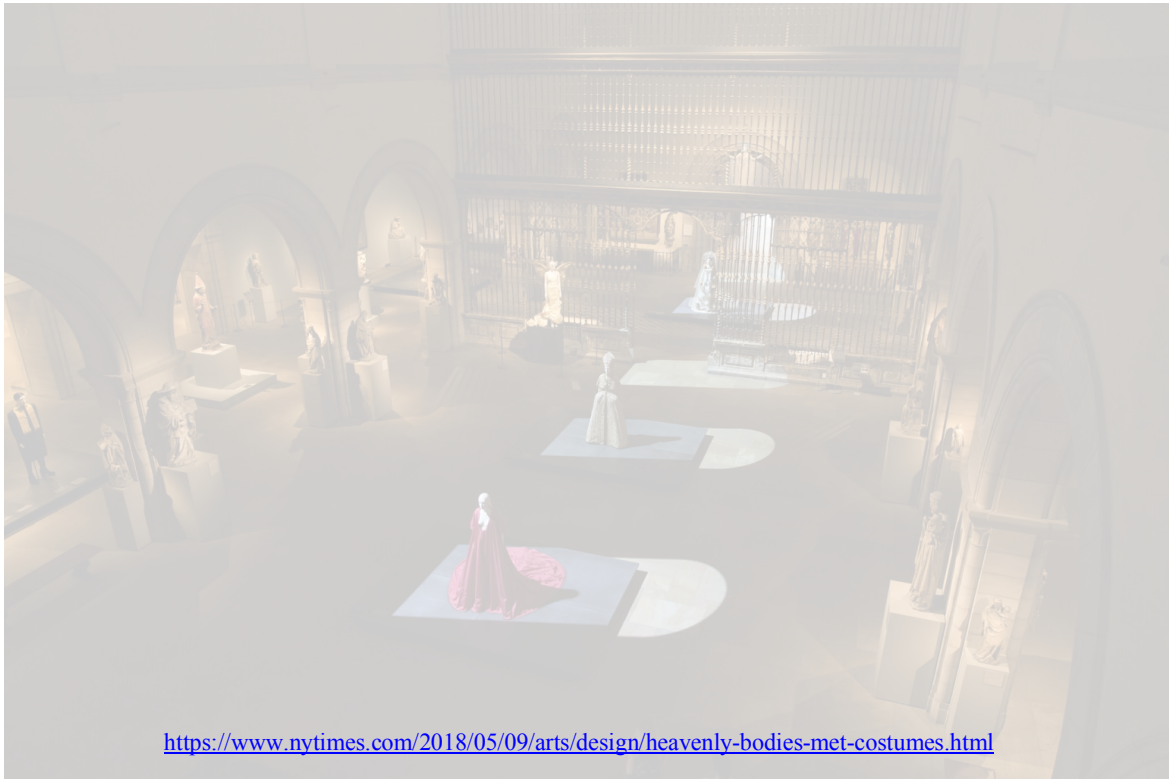


Fig. 9: Choir of Mannequins, image credit: Agaton Strom, New York Times 2018

Reversing the normal and expected patterns of highlight and shadow, up-lighting these choral mannequins (Fig. 9) accentuates areas of the upper body (below the chin, bottoms of the nose and eyelids/brows) that are typically shaded when figures are front-lit from above. The lighting focus and beam distribution sculpturally reveal form through the creation of highlights and lowlights, providing depth to the ensemble that could otherwise appear flat or positioned directly against the back wall. The dramatic shadows projected on the wall heighten the choir's presence, yet the softened shadow edges prevent it from feeling ominous or distracting next to the artwork. Rather, the effective use of diffused light causes the tableaux to feel ethereal and slightly mystical because the light appears to wrap around the figures and engulf them from multiple directions without the glare of direct light. Inspired by clergy choir dress, these Cristóbal Balenciaga white silk crepe choral robes were designed in 1964 for a Spanish concert choir (Farago, 2018). Given the robes' neutral hue and high value, I imagine the light levels only require about 8 to 12 footcandles. The exhibition lighting design team relayed this installation posed great challenge: the smaller lofted space left little room to create architectural detail. Subsequently, several optical iterations were tested until the team decided on a 15 degree linear grazer during the final days of focusing the fixtures. Per Arikol, "all fixtures were

equipped with an in-line dimmer which was set precisely to maximize the lighting impact while protecting the fabrics."

Exhibited in the same medieval gallery and juxtaposed beneath the choir, viewers discover the presentation of secular clothing inspired by Catholic ceremony and tradition which includes gowns designed by notable fashion houses such as Dolce & Gabbana, Dior, Valentino, and Givenchy.



https://www.nytimes.com/2018/05/09/arts/design/heavenly-bodies-met-costumes.html

Fig. 10: An Ecclesiastical Pageant, image credit: Agaton Strom, New York Times 2018

In the Byzantine art wing, mannequins appear in a processional through the center aisle or conjure the notion of a catwalk runway show of religious couture (Fig. 10). Performing amidst the staid, neutral statuaries the glamorous gowns pop in the baths of textured light in a cool color temperature. The arched-window spot lights pull viewers' perspective and create visual focus to reveal the characters in their processional. Additionally, the purposeful design of Romanesque windows integrates interplay with the existing architectural arches within the gallery. With ease, a visitor can conjure a natural light source high above the arches spilling icy moonlight below (Fig. 11). Contrasted against

https://www.nytimes.com/2018/05/09/arts/design/heavenly-bodies-met-costumes.html

Fig. 11: Evening Ensemble, image credit: Vincent Tullo, New York Times 2018

the warmer halogen lights on the museum's pedestaled sculptures, the mannequins remain grounded in their earthly status. Equated to a theatrical lighting designer's composition creating moods in separate acting areas on stage, audiences experiencing this exhibition perceive the mannequins pulled into the foreground of centerstage through isolation and brighter intensity. The subdued architectural lighting in this gallery—minimal wall washes and floor washes—provides a complimentary environment that allows the dramaturgy of the exhibition to become a production. Carefully calibrated digital projectors created the windows of bright light on the floors without damaging the garments. In correspondence with Ms. Arikol, she indicated the projection was mapped around the silhouettes of the garments and the portion of the projection lighting the actual silhouette was made more opaque to create the resulting light levels. Similar to an actress performing an operatic aria in her spotlight, the composition of color, intensity, and distribution of light in this gallery artistically prompt a psychophysical response by the viewers, the museum's audience.

After navigating through the Medieval and Byzantium galleries, the exhibition continues on a lower floor of the museum in the Anna Wintour Costume Center. In this gallery, forty-plus objects on loan from the Vatican's Sistine Chapel Sacristy are met with

reverence and sanctity. According to Arikol, creating contrast was particularly challenging in this gallery, where the light level requirements were the most stringent (5 – 7 footcandles). Because the below-grade gallery is accessed via an L-shaped staircase off of one of the brightly-lit Egyptian exhibits at street level, TDA worked with the Met's in-house lighting team to incrementally dim the light levels as visitors descend the stairs, allowing the viewer's eyes to adjust. Arikol reported the illusion of brightness was also created by evenly washing the vertical surfaces of the space. Quietly wafting through the air, liturgical music softened viewers' transition to observe the sacred and ritual objects worn by popes of past centuries: robes, leather shoes, crowns and mitres (Fig. 12).

Fig. 12: Apostolic Elegance, image credit: Agaton Strom New York Times 2018

I discovered another connection of applying stage lighting to museum settings in her description of gradually decreasing light levels as museum visitors moved downstairs, it parallels cueing "looks" or graduating intensities as actors shift action on stage. During transitions between scenes, I create new lighting cues indicating a shift in time or space or mood. While these transition moments can differ dramatically from the previous scene, other times creating the light cue simply consists of an effective long fade.

I asked Ms. Arikol how the historical garments and objects influenced the desired mood or lighting environment in this particular gallery. She replied, “Grand papal robes were displayed in front of back-lit fabric panels, designed to create an effect of the robes emerging from a delicate fog. The opposite-facing robes were encased in custom cases, designed to appear as though they were floating in space. The track lighting was carefully focused and screened to reinforce the shapes of the garments and enhance the floating illusion”. Additionally, the Vatican required the Met to separate the religious garments from the fashion objects and requested a clean display, as the vestments are still in use (Farago, 2018). In keeping with Vatican’s guidelines, the design teams delivered immaculate displays that both met conservation requirements and were highly effective in their presentation.

In addition to the main museum building on Fifth Avenue, the Met Cloisters exhibition space lies on the northern tip of Manhattan, overlooking the Hudson River and far outside of the bustling city. Visitors that journeyed from The Met Fifth Avenue to the Cloisters experienced an added element of pilgrimage to this exhibition. Likened to collaboration among scenic, costume, and lighting designers, the exhibition designers selected garments for display in the Met Cloisters that relate to the architecture or function of those gallery spaces. A bold choice to exhibit the garments under natural light, some displays in the Cloisters required special and careful attention as the windows did not have UV treatments. These garments and textiles could not be too fragile to withstand the ample natural light received throughout the day. According to Arikol, lighting fixtures were turned “ON” after sunset, at which point the artificial lighting could be maintained at a controlled level. Framed under one of the many Romanesque arches of the Cloisters, this 2015 Valentino cape (Fig. 13) made with black velvet is reminiscent of both the Colosseum in Rome as well as the Cloisters. Elevated above a grey concrete block and set against the pale stone architecture, the low value garment and its details stand out within the courtyard’s natural light. The crisp white mannequin with jet black hair floats more than ten feet in the air, defying the historical norms of museum display of dress in

favor of creativity, aesthetics, and a dramatic environment; the unattainability of the fashion positioned high above the visitors.

Fig. 13: Elevation, image credit: Agaton Strom New York Times 2018

The Cloisters property, devoted to the art and architecture of medieval Europe, incorporates architectural elements replicated from chapels, monasteries, and gardens from sites in Europe. This setting reinforces original contexts for the works on display. In contrast to the Fifth Avenue galleries peppered with statues, objects, and paintings, the spacious gardens, breezeways, and chapel at the Cloisters offer an airy experience—incorporating natural lighting and living garden plants—atypical from the expected white-walled museum displays. Entering the Fuentidueña Chapel, the curators designed this space around the seven sacraments of the Catholic religion, highlighting Baptism, First Communion, and Marriage. Here, visitors are invited to participate in the sacrament of marriage, to become part of the story inside a wedding chapel, the bride processing to the altar wearing an extravagant gown and taking center stage in her spotlight (Fig. 14). Applying the same arched-window projection as in the medieval gallery at the Met Fifth

Avenue, the scene invites reflection and focus, modern fashion in dialogue with pious chapel objects. Her face obscured from viewers, the bride wears an iconic wedding Cristobal Balenciaga gown known as the "One Seam Wedding Dress" created in 1967. In a Vogue interview, curator Andrew Bolton exclaimed the dress is one of his favorites in the exhibition, "…there's a great mythology that goes around the dress. It actually has five seams and it's made from three pieces of fabric, but it's still an extraordinary feat of engineering. I love the idea that the one-seam wedding dress will echo the description of Christ's garment, when he was crucified, being made from one length of fabric" (Dowd, 2018). The surrounding darkness on the floor focuses the audience's eyes on the bride, creating heightened drama and effectively transports a visitor to experience a different place that she or he would not otherwise be a part of.

Fig. 14: Wedding Ensemble, image credit: Vincent Tullo, New York Times 2018

By altering the visitor's sense of space and time: the grand and authentic scale of the chapel, classical music of "Ave Maria" playing overhead, an elegant bride processing

down the aisle, a spectacularly designed exhibition transports visitors to a new location and engages them in a story and an experience that has lasting impact.

CASE STUDY 2: *Savage Beauty*, Alexander McQueen

Renowned designer and couturier Alexander McQueen crafted some of the most provocative and dramatic fashion shows of the 1990's to early 2000's—his iconic designs constituted the work of an artist whose medium of expression was fashion. In 1996 McQueen became one of the youngest designers to receive the title of "British Designer of the Year," an honor bestowed on him four times over. Seven years later McQueen was awarded two additional prestigious achievements: Commander of the Most Excellent British Empire (CBE) and International Designer of the Year by the Council of Fashion Designers. The British Culture Secretary proclaimed, "Alexander McQueen made an outstanding contribution to British fashion. His extraordinary talent and creativity mean that his designs are adored not just by followers of haute couture but lovers of great style everywhere." (Milligan, 2010). Fashion photographer Nick Knight proclaimed of McQueen's 2001 Spring fashion show VOSS, "It was probably one of the best pieces of Fashion Theatre I have ever witnessed" (SHOWstudio, 2001). The shocking news of McQueen's death by suicide, at age 40, in February 2010 rattled many across the globe from his family to celebrities to fashionistas.

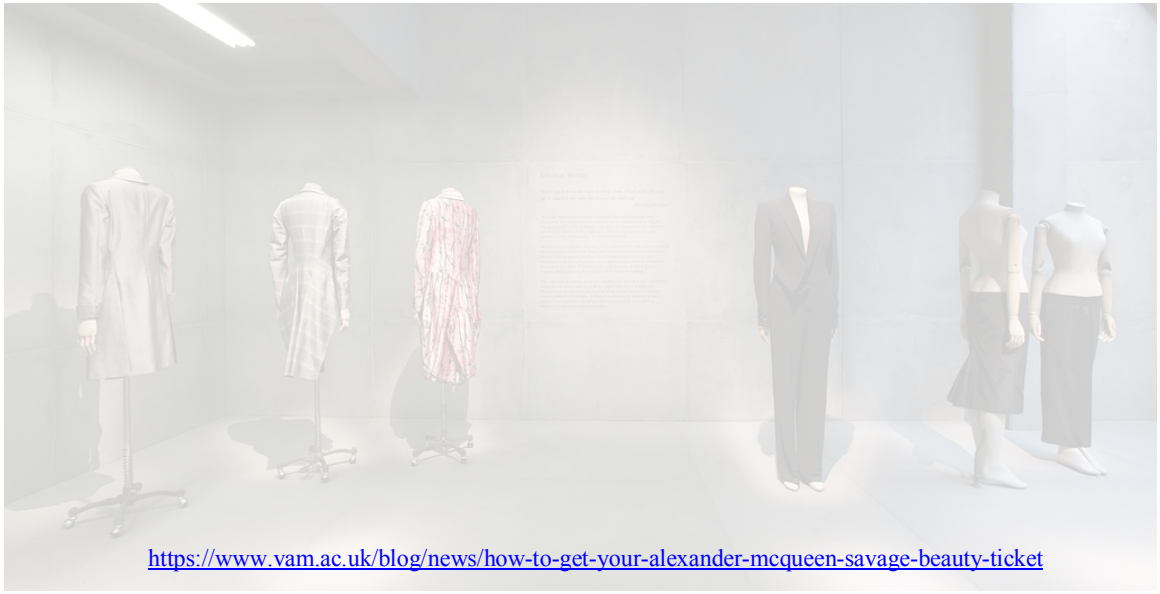
The year following his death in May 2011, the Metropolitan Museum of Art in New York City debuted an exhibition featuring the largest retrospective of Alexander McQueen's collection. It was a phenomenon of almost instantaneous popularity. The blockbuster *Savage Beauty* exhibition featured approximately 100 McQueen ensembles and scores of accessories that spanned his creative lifetime. The overwhelming response was so successful that Alexander McQueen fans—and industry professionals worldwide—rallied a petition at Change.org to "Please Make Alexander McQueen Savage Beauty a Traveling Exhibition". In April 2014, London's Victoria and Albert (V&A) Museum confirmed it would stage the *Savage Beauty* exhibition the following year, director Martin Roth stating, "Lee Alexander McQueen was brought up in London, studied here,

and based his globally successful McQueen brand here--by staging the exhibition at the V&A it feels like we are bringing his work home" (BBC News, 2014).

The V&A's staging of McQueen's Savage Beauty in 2015 set the museum's attendance record at that point in museum history, with 493,043 people visiting the exhibition—which according to V&A's 2015-2016 annual report was the highest ever charging exhibition attendance figure. To meet the constantly growing demand, the museum extended the show an additional two weeks and opened early mornings and evenings allowing visitors to buy advanced tickets and releasing 200 same day tickets. Between ticket sales, merchandise, an impeccably produced catalogue and a host of other exhibition-related items, the year resulted in a total operating profit of £7.8 million for the V&A (Victoria and Albert Museum, 2016).

In an interview with Sam Gainsbury and Anna Whiting, McQueen's longtime fashion show collaborators who consulted and produced the exhibition, Gainsbury states, "the fact that both exhibitions at the Met and the V&A have been delivered by Lee's friends and colleagues has meant that we've been able translate the visual language of his shows authentically. Ultimately, Lee was a storyteller, so we've tried to translate his stories into the exhibition" (Woo, 2015). Gainsbury and Whiting (G&W) first collaborated with McQueen in the mid 1990's, when the more experimental fashion designers utilized raised catwalks and simple lighting, but McQueen expressed his desire to create a more cinematic presentation, which G&W shaped with their background in producing music videos. Whiting recalled working with McQueen on an early low budget fashion show, where they "added a red light to the back wall and that was about it. I think we all felt that Lee's clothes deserved more" she said. The design duo relayed that McQueen valued when his audience connected emotionally in some way to his work. Through boundary-pushing and elaborately staged performances, the G&W design team crafted productions that relied on lighting rigs, video, sound design, and incorporated live feeds of shows.

Rather than stage *Savage Beauty* as a more traditional retrospective, the Met's curator Andrew Bolton identified themes throughout McQueen's career and presented them non-linearly, incorporating multi-sensory techniques including sound/music, video, wind, projections, and even a hologram.



https://www.vam.ac.uk/blog/news/how-to-get-your-alexander-mcqueen-savage-beauty-ticket

Fig. 15: Romantic Mind Gallery, *Savage Beauty*, image credit: Victoria & Albert 2015

The first *Savage Beauty* gallery, "Romantic Mind", (Fig. 15) was inspired by McQueen's first altierre in England which ultimately became his fashion house (Bolton, 2011). Florescent lights adorn concrete walls and concrete flooring. It's raw. Industrial. Cold. The headless dress forms connote a feeling of function and tailoring, more serviceable than dramatic. In addition to the florescent lighting, focused object lighting with softened edges frames each dress form/mannequin. Color temperatures on the left side of the display, floor, and objects appear to be 3000K, while the right side of the gallery falls on the other end of the spectrum, approximately 6000K the space glimmers with vivid daylight. As with McQueen's catwalk shows where audiences came to expect the unexpected, passing from the Romantic Mind gallery into the next, "Romantic Gothic", one exhibit reviewer conveyed, "I felt like I had been transported into an enchanted world akin to a gothic fairytale in crossing the boundary from light into darkness" (Mida, 58, 2015).

Wind machines gust upon the display (Fig. 16) accompanied by a soundscape of howling wolves. The tarnished mirrored wall surfaces create a distorted reflection, exuding an instant stark contrast to the previous gallery. Channeling McQueen's darker side, this room's inspiration comes from Edgar Allen Poe's "Fall of the House of Usher" (Bolton, 2011).

Fig. 16: Romantic Gothic Gallery, *Savage Beauty*, image credit: The Met 2011

Fig. 17: Romantic Gothic Gallery, *Savage Beauty*, image credit: Victoria & Albert 2015

The full figured mannequins, vice modest dress forms seen in the Romantic Mind gallery, have "hair" styled in punk blue-tinged mohawks (Fig. 17). The room's centerpiece casement contains McQueen's posthumous work, which was crafted to resemble a casket (Bolton, 2011). Directly overhead the "casket", a glaring lightbox illuminates the display in an even architectural wash, the high contrast between the dark patina walls and floors emphasized by the vivid light. Given the reflective nature of the glass casing and the mirrored back wall, the diffused overhead lighting was an excellent choice to prevent glare for viewers and simultaneously provided a distinctive "scene" from the rest of the gallery. The highly ornamental aesthetics of gilded glass cabinets evokes palatial grandeur, yet the subtle accent lighting on the case feels more elegant than gaudy.

www.designweek.co.uk/issues/9-5-march-2015/inside-the-vas-alexander-mcqueen-exhibition-savage-beauty/

Fig. 18: Cabinet of Curiosity, *Savage Beauty*, image credit: Victoria & Albert 2015

In a substantial break from the more traditional approaches to fashion exhibition, the third gallery, "Cabinet of Curiosity" (Fig. 18) pays homage to the previously discussed *wunderkammer* of the 18th century. Curator Bolton considers this gallery to be the nucleus of the exhibition, and shows the breadth of inspiration for McQueen's designs

including accessory pieces such as hats, shoes, jewelry. Ten iconic moments from McQueen's fashion shows play on the multiple video screens and embody all of the seven galleries' thematic and contrasting opposites. Black matte paint treatment on the cabinet walls and ceiling allows each item to pop out dimensionally from its niche. Ceiling track lighting accommodates pin-spot lights on each object—each focused precisely so as not to cause specular glare on the high-gloss black floor treatment.

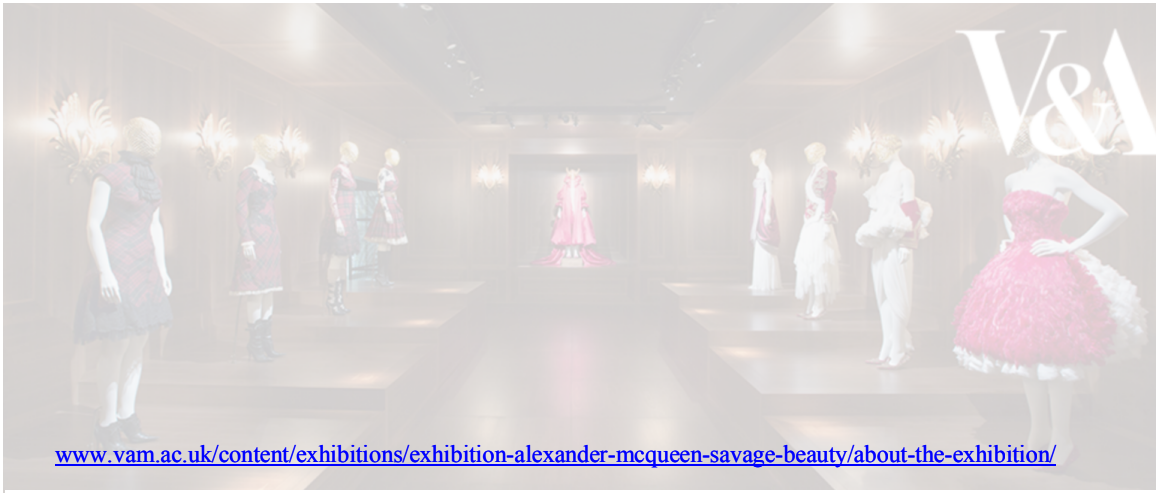


Fig. 19: Romantic Nationalism Gallery, *Savage Beauty*, image credit: Victoria & Albert 2015

"Romantic Nationalism" (Fig. 19) personifies McQueen's Scottish heritage and his great love of British history. Poised in an elegant face-off, these dueling mannequins wear bejeweled masks and are seemingly gathered under the watchful eye of a Queen. The surrounding wall sconces resemble candlelight, accentuating a warm aesthetic on the chestnut colored wooden walls. Recessed track lighting allows a 45 degree angle of light coming from the beam projectors onto the mannequins; this cooler color temperature light on the stark white figures sculpts their dimensionality, as if they emerge from the background. Cast shadows on the back walls help visitors visually create the separation between the mannequins and their background. I observe the connection with stage

lighting here, as if the actor is emerging from a darkened rear stage, stepping into the icy front light, she comes to life.

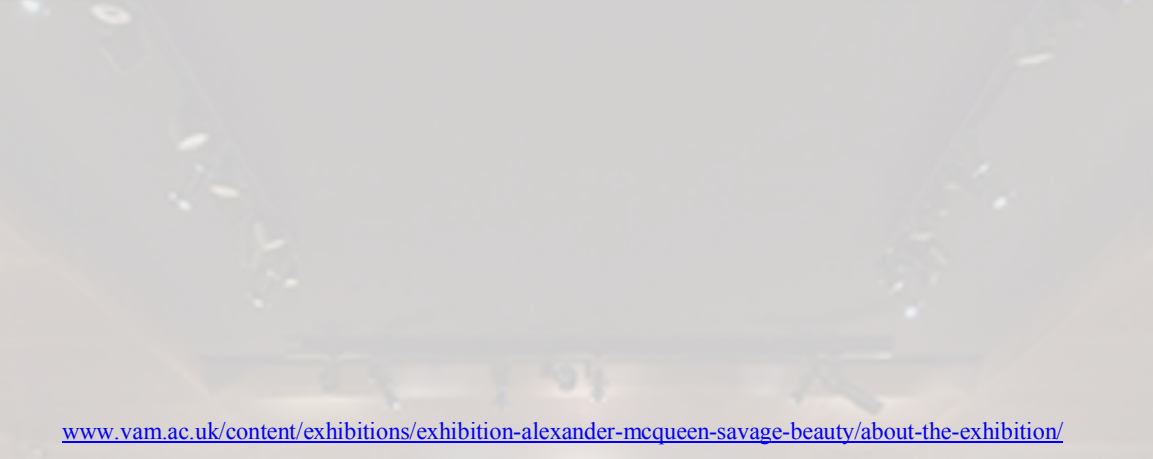


Fig. 20: Close-up lighting track, *Savage Beauty*, image credit: Victoria & Albert 2015

Closer evaluation (Fig. 20) of the track lights reveals the two distinct sets of fixtures: 1) the can lights pointed at nearly a 90 degree angle toward the floor focused on the curator's text, and the 2) elongated beam projector focused on the mannequins. Layering these systems of light produces a cohesive design that successfully separates the displays from their surroundings. Both the tartan and red dresses could have easily been "muddied" against the brown walls. Yet the designer's ability to utilize the bounce light from the wall sconces onto the semi-gloss ceiling to illuminate the gallery proved masterful.

Continuing through the exhibition, viewers find themselves surrounded by rusty metal walls, crashing waves and creaking metal soundscape, and the ultimate sensation of being on a sunken ship for the "Romantic Primitivism" gallery (Fig. 21). Suspended from the ceiling, a large video screen shows a film of ship wreck with women and sea creatures floating in the ocean, the audience radically transported to a new underworld.

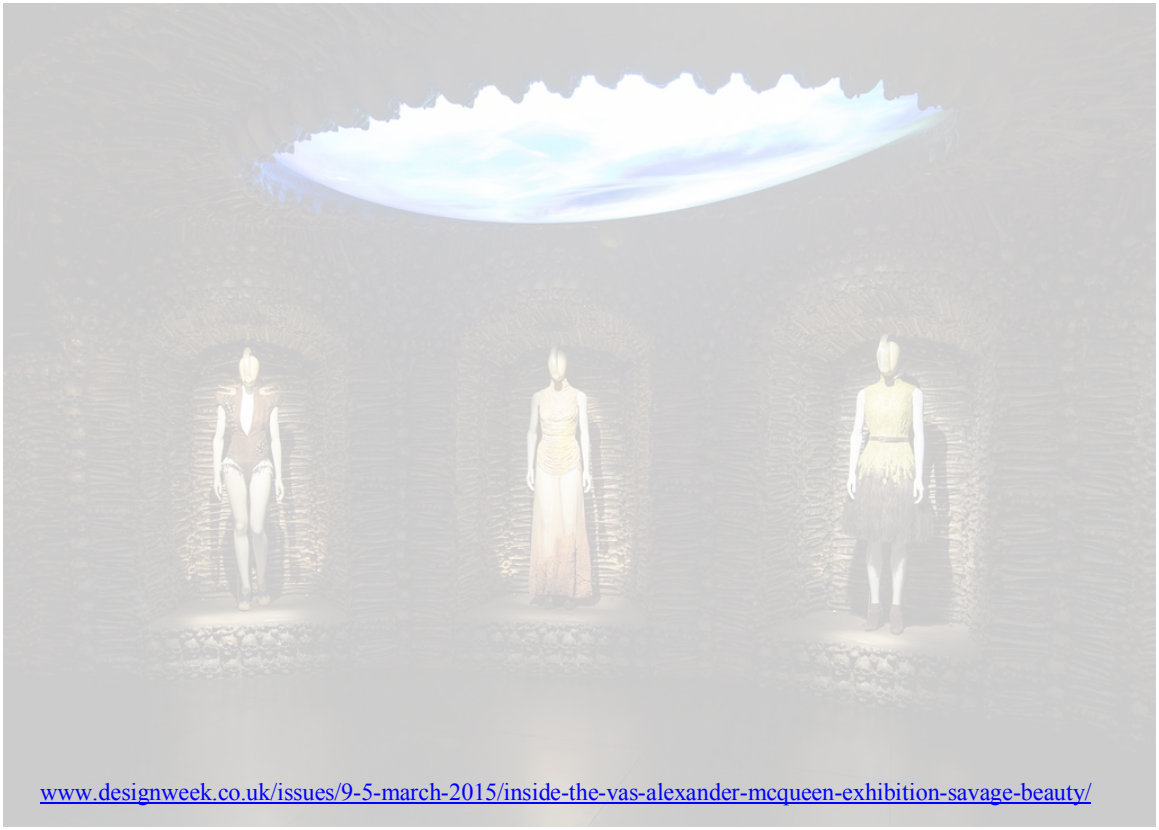


Fig. 21: Romantic Primitivism Gallery, *Savage Beauty*, image credit: Victoria & Albert 2015

Mannequins emerge from their porticos made of skulls and bones. Hidden from view in this room, lighting fixtures create shadows within the portals indicating the mannequins are front-lit. Targeted light spill from the figures' spots features the skulls near their feet, a detail which could easily be overlooked without careful inspection. The room's overall lower light levels create mystery and cryptic wonder…what's lurking around the next corner?

The final gallery, "Romantic Naturalism" (Fig. 22) culminates with a confrontation of McQueen's major themes of contrasting opposites: nature vs. technology and man vs. machine. Acrylic white tiles cover the walls and pedestal, meaning to evoke a laboratory's clinical space (Bolton, 2011). Video projections from McQueen's *Plato Atlantis* show, the last show before his death, provide the visual backdrop and music from

McQueen's longtime collaborator John Gosling reverberates throughout the rooms (Moon, 2012). Silver space-age mannequins with accentuated winged protuberances stand at attention, provoking thoughts about the future. The iconic armadillo boots suggest an elegant crab's claw merged with human form. Lighting in this space feels purposefully inhibited, allowing the glow from the giant video screen to support the room's luminosity. Pin spots on the mannequins effectively accentuate their featureless faces and simultaneously transport us to a scientific runway.

Fig. 22: Romantic Naturalism Gallery, *Savage Beauty*, image credit: Victoria & Albert 2015

Disciplined attention to design and object installation transports audiences to evocative and spectacular destinations throughout *Savage Beauty*. Lighting, soundscapes, and enchanting scenic design facilitate the sense of descending into completely new worlds. V&A's staging of Savage Beauty utilized Bolton's thematic premise and organization, and there were an additional sixty-plus pieces on display. Dress historian and scholar Dr. Ingrid Mida, experienced both McQueen exhibitions (Met and V&A), and reported "the London iteration had bigger gallery spaces, smaller labels, louder music, creating another degree of dislocation and vertigo in the strand other world hyper-reality of this curated space" (Mida, 59, 2015).

CONCLUSION

There may not be codified conventions for applying theatrical lighting design to museum exhibitions, but there is clearly a need and trend to craft environments that are immersive visual narratives and that attract masses. Media scholar Alison Griffiths defined the concept of an immersive exhibition as the "sensation of entering a space that immediately identifies itself as somehow separate from the world giving the sensation or feeling of otherness in which dimensions of time and space are absent" (Mida, 51, 2015). It is the quality of being in another time or place that defines the exhibitions being considered in this thesis.

Once scorned by high-brow institutions as celebrating a lesser craft, fashion exhibitions have grown to be highly attractive additions to museum programming across the globe. But what accounts for this recent obsession with fashion and fashion heritage? Many museums cannot generate the money needed to run a self-sufficient modern museum and therefore require economic support. Blockbuster fashion exhibitions—especially those focusing on contemporary designers—attract the masses and seek corporate sponsorship.

Public opinion has integrated fashion as an artistic cultural object. With creative, thematic, narrative displays, fashion exhibition presents opportunities to create dramaturgical experiences and place the visitor in a position to be an interpreter of events, all with inanimate objects. Light, sound and theatre elements have transformed displays of fashion into immersive exhibitions of spectacle, and yet must adhere to museum practices and preservation standards that limit light exposure.

With challenges in museum funding coupled with the rise of social media, museums compete for their audiences with other forms of entertainment. Successful exhibitions engage and even challenge their audience in novel and intuitive ways. Theatrical lighting has a major role to play in these successes. Creative lighting schemes introduce a variety of intensities and light levels to establish a distinctive rhythm. Museums present special

challenges in the demand for correct illumination of light sensitive artifacts, it being of highest priority to balance time and illumination levels. Lighting technology and design related energy conservation and preservation aspects of artificial and natural light within a museum must be planned prior to dramatic applications to museum exhibitions.

A theatrical lighting framework accentuates a museum exhibition narrative beyond the physical space to create a spectacle. This is especially true with fashion exhibitions that engage non-standard museum goers. Recently, in the Fall of 2019, V&A museum broke Alexander McQueen's *Savage Beauty* attendance records with the dazzling *Christian Dior: Designer of Dreams* exhibition, a blockbuster display of haute couture. And in times when museums attempt to capture much-desired audience and capital, I predict there will be continued expansion of fashion spectacle within museums. While not all regional museums may have the budgets to stage blockbuster fashion exhibitions the caliber of those of the Met or V&A museums, applying stage lighting techniques to exhibitions creates a sense of wonder and awe, transporting visitors to suspend disbelief and accept the new reality created for them. There should be further curatorial discussion that emphasizes the collaborative nature between theatrical lighting designers and museum fashion curators, compelling museum audiences to look at objects in a new way.

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