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The Eye of Light

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This chapter articulates some of the essential aspects of shadow theatre performance and how the root of this ancient performance genre reflects upon the physical and metaphysical properties of light. To do so effectively, it is necessary to blend the languages of the physicist, the Kabbalist, and the artist, since shadow theatre as a performance medium is located at the nexus of scientific, mystical, and aesthetic practices.

Light underpins the very structure of the physical universe. On this both mystics and scientists seem to concur. The biblical account of creation given in Genesis 1:3 cites God’s first utterance as “Let there be Light.” And there it was. The emergence of this Primal Light is described with painterly precision in the Zohar (The Book of Splendor, a key text of Jewish Kabbala written by Moses De Leon in the thirteenth century):

Within the most hidden recess a dark flame issued from the mystery of Eyn Sof [“without end”], the Infinite, like a fog forming in the unformed. … From the innermost center of the flame sprang forth a well out of which colors issued and spread upon everything beneath, hidden in the mysterious hiddenness of Eyn Sof. … It could not be recognized at all until a hidden supernal point shone forth under the impact of the final breaking through.

(cited in Scholem 1949: 27)

Contemporary astrophysicists have conceived of cosmogenesis in surprisingly similar metaphoric language. They describe the moments after the Big Bang, when a fierce, roiling pinpoint of energy sprang into existence and expanded explosively across 10 or 11 dimensions (depending upon who’s counting). In less than a second, the unified forces of space/time/gravity tore apart and unfurled to fill an area the size of the solar system – an unbelievably dense ball of plasma, hotter than the interior of a star. Space itself glowed brilliantly in every direction and from every point so that not a trace of shadow existed from one end of the newborn universe to the
other. Over eons the cosmos cooled and darkened; yet even today, several dozen billion years after the fact, the energy imprint of those first fiery moments of cosmic birth can be detected by our most sensitive radio-telescopic instruments.

Shadow theatre references both of these cosmic narratives. Just as light oscillates between matter and energy states (depending upon how it is observed and measured), the shadow image, spun out of light and its absence, imbued with breath and motion, shifts effortlessly between spiritual realms and the physical plane – an apt model for the human soul/body construct and a perfect performance medium for deep philosophical discourse. How traditional shadow theatre functions as a transmission medium for sacred cultural material is evident in many of the oldest surviving genres of Asian shadow performance – Indian tolu bomalata, Thai nang-yi, and Indonesian wayang kulit. The latter is especially demonstrative of how shadow theatre can delineate a schematic cosmic map: the white screen represents the field of physical action, illuminated by the radiance of the Sun; in the middle of the field stands the kayon, the Tree of Life; and on either side of the dalang (the presiding priest/performer) ranks of shadow figures are arranged according to their relationship to these two polarities of spiritual energy. Likewise, Chinese shadow performance is deeply rooted in both shamanic rituals for communicating with the dead and in Buddhist religious beliefs.

While an affinity for sacred discourse is found across many genres of traditional puppetry, shadow theatre differs fundamentally from other forms of puppet performance because it is not the performing object upon which audience attention is focused but the object’s image as it appears projected onto a translucent screen. The physical object and its projected image pull apart as the puppet figure is moved away from the focal plane.

This is critical in understanding the technical aspects of shadow theatre. The image/object gap can be creatively manipulated with various mechanical devices and

Figure 9.1 Photo montage created by and courtesy of the author
filters – such as lenses. Since glass, like water, refracts the path of light, a precisely curved arc of smooth, polished glass (such as a plano/convex lens used in theatre lighting instruments) will focus a wide beam of light down to a narrow shaft. A series of lenses can focus a sharp image some distance from its source. These coherent beams can be directed to fall onto photosensitive receptors inside a camera, making the image suitable for transmission over even wider spaces.

Technical mediation increases the distance in space and time that these patterns of light and motion can be transmitted. Modern forms of electronic image broadcasting – film, video, and computer-generated media – require enormous corporate and industrial infrastructures to manufacture and operate the imaging and broadcasting equipment, and to create, perform, edit, produce, and market content for its intended public. In contrast, shadow puppetry maintains hands-on, physical contact between performer and object, as well as real-time, unmediated, line-of-sight connections between object, image, and audience.

The elements of shadow performance

The shadow image is the product of light flowing directly through and around the performing object onto a focal plane. This triad of elements is intimately entwined so that it is hard to refer to one without the others. To gain a clear understanding of the craft, however, it is worth teasing the elements apart and observing their individual characteristics closely.

**Light source**

The flow of light impeded in some manner gives birth to the shadow image. Therefore, the precise shape of the illuminating source is of particular importance to the definition of the image. The open flame of the blenchong lamp used in Javanese wayang performance hangs directly above the dalang’s head, about an arm’s length away from the screen. Its light flickers with every passing breeze, imparting a soulful animation to the shadow images. The effect is similar to that described by the French philosopher Gaston Bachelard:

> Space moves in the flame; time is active. Everything trembles when the light trembles. Is not the becoming of fire the most dramatic and the most alive of all becomings? The world moves rapidly if it is imagined on fire. Hence the Philosopher can dream everything – violence and peace – when he dreams of the world before his candle.

*Bachelard 1961 [1988]: 22*

In contrast to the dynamic shadow produced by a living flame, the steady, brilliant illumination of an artificial light creates a harder umbra that exactly fits the profile of the bulb’s filament: a tiny, pinpoint light source (for example, that produced by an LED or a halogen projector bulb) casts a crisp, hard-edged shadow; an elongated light source (e.g., a fluorescent light) creates blurry and diffuse shadows; likewise,
multiple light sources will cast overlapping images. Single-point light sources make possible the amplification of the shadow image to many times the scale of the object producing them. A xenon arc lamp, of the type used by Larry Reed’s ShadowLight Productions (which makes an incredibly brilliant light from a controlled electrical sparking), can project a massive shadow some 30 feet wide from a relatively small object positioned a foot or so away from the lamp. The size of the light source and its distance from the screen affect the depth of field in which the shadow figure can play, while still remaining relatively in focus. How the light is concentrated or reflected will also affect the quality of shadow cast.

Although in traditional shadow theatres the light source is passive, this is not always the case for many contemporary shadow theatres. Herte Schonewolf’s seminal book on modern shadow puppetry technique *Play with Light and Shadow* (Schönewolf 1968) refers explicitly in its title to this change in emphasis. The Italian company Teatro Gioco Vita has developed this idea in performance to the point where the light sources – handheld halogen lamps – are as meticulously animated as the relatively static, cutout shadow figures. The artful choreography of these lights creates images that pan and zoom in and out like a camera.

**Shadow figure**

In its most elemental form, the shadow figure is defined by the contours of its edges and perforations. Light from the lamp, together with the contoured silhouette of the figure, creates a simple binary composition of black and white. To add intermediate shades of gray or color to the image, one must consider the molecular structure of the material composing the shadow figure. The manner by which materials transmit, bend, absorb, or scatter various frequencies of light gives them their particular qualities of transparency, opacity, refraction, and color. The light-transmission characteristics of different materials are what give the shadow designer a wide-ranging palette with which to paint the image. Most solid materials randomly scatter light passing through them, therefore creating opaque shadows. However, materials with extremely regular crystalline or molecular structures (such as glass or certain plastics) can appear virtually transparent.

One of the oldest materials for the manufacture of shadow figures is animal hide. Opaque in its natural form, it becomes translucent by a laborious process of stretching, scraping, and pounding. The resulting parchment makes a marvelously rich and varied shadow image that is tinted warm ochre or russet depending upon the animal from which it came and the skin’s thickness. Its organic irregularity makes it quite different from man-made materials, such as vinyl, acetate, or polycarbonate plastics, products of industrial manufacturing whose utterly uniform molecular structure and surface smoothness results in a sheer, even transparency.

The edges of the shadow figure define the graphic shape of the shadow, so there can be no reliance on the subtlety of three-dimensional modeling of form to assist in revealing the figure’s dramatic character. For this reason, the faces of most traditional figures are designed in profile or in a cubistic, three-quarter view. It is interesting to contrast Chinese or Javanese shadow figures with their 3-D puppet or human counterparts in order to appreciate the way their designers are able to
compress the particulars of theatrical character types into the two-dimensional image plane.

The shadow figure is generally articulated by rods, since this allows the most direct control without the operator’s own shadow interfering with the image. However, a kind of body/shadow figure has become popular for larger-scale shadow theatres in which a shadow mask is mounted on the puppeteer’s head. The resulting shadow image melds together the silhouette of the puppeteer with that mask.

**Focal plane**

The clear, blank surface is the field upon which the shadow image is projected. Traditionally this was a tent wall or a tautly stretched piece of linen or silk. Modern screens include a variety of synthetic rear-projection materials that diffuse the hot spot caused by the light source. The shadow screen defines in formal terms the hierarchy of the theatrical experience, separating the performers from the audience and severing the image from the object and light source creating it. Some traditional Indonesian wayang performances allow select audience members to sit behind the screen and watch the dalang operate the puppets directly – these guests are considered privileged to be able witness the higher reality of the performance praxis and to watch the dalang’s technique.

In most shadow performances the screen tends to be the most passive stage element. However, just as the light source can be brought into play, the screen can also be effectively animated. In the dramatic climax of Julie Taymor’s Lion King, during the showdown between the pack of hyenas and the pride of lions, a 30-foot-long spandex screen snakes about the stage, alternately opening to reveal the live masked dancers, then closing back up to make a dynamic surface for the images of the relatively static shadow figures.

**The architecture of light and shadow**

Without the physical stasis of a material body, a shadow projection has no physical limits in terms of scale other than the brightness of its light source. With lasers or brilliant arc-light projectors, shadow images can be thrown onto the sides of buildings and bridges hundreds of feet tall and wide. With improved lamp and projection technology, the sky is truly the limit.

A stunning example of a practical mega-light and shadow spectacle, “Tribute in Light” was on display directly above the site of the World Trade Center in the autumn of 2001 and thereafter on anniversaries of the September 11 tragedy. It consisted of 88 parallel beams of intense light pointing straight up and arranged around the footprints of the fallen buildings. While relatively simple technically, the installation was an emotionally moving experience and a monumental aesthetic construct, visible over 20 miles away. The twin shafts of light did not move or “perform” in any way, but they were in constant interplay with the landscape and with the atmosphere above the city. During the month that they were activated, I often sat near our Brooklyn studio, across the East River about a mile distant from
Ground Zero, and watched their beams dance across the various layers of scudding clouds. On rainy nights they formed a brilliant, glowing mushroom over the skyscrapers of Lower Manhattan; on clear nights they created a silvery shaft that faded as it arced up towards infinity. It was truly a masterful (and totally minimalist) aesthetic gesture.

Curiously, these pillars of light hearken back to one of the earliest references to shadow puppetry in Chinese literature. According to Han dynasty historical accounts, the Emperor Wu (who ruled from the second to the first century BCE) was consumed by grief at the death of his favorite concubine and could no longer rule effectively. His ministers, fearing political chaos, found an old shaman who claimed he could summon back the soul of the emperor’s beloved. He set up a silk tent in the palace and had the emperor take a seat in front. Inside the tent a flame was lit and from out of its flickering light, the silhouette of the concubine emerged. The emperor conversed with her and was consoled (Chen 2007: 22). Both the contemporary “Tribute in Light” and the Han Dynasty shaman’s illuminated séance illustrate one of the core social functions of the shadow performer: to build a bridge of light and shadow on which the dead and the living, the spirit and human worlds, can communicate effectively with each other.

So what is the utility in our highly secularized, postindustrial culture of an art form that utilizes archaic, analog technology to harness the dynamics of light for building connections between the disembodied realms of spirit and the human world? Can shadow theatre be an effective bridge between ancient and future

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Figure 9.2 Traditional shadow troupe in rehearsal, Northern China (1936), Pauline Benton Collection. Photo courtesy of Chinese Theatre Works
performance models? While these questions have no clear answers, I see no reason why contemporary shadow theatre need lose its connection to the primal forces imbibing its prehistoric roots, nor why it should not simultaneously continue to exploit new technologies as practical media for aesthetic expression.

**Works cited**


