

# Life is Serious; **ART SERENE**

## **Biography**

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# BREAKING WALLS: REINVENTING SPACES THROUGH LIGHTING DESIGN

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## **Abstract**

Does art in academia sometimes feel overly serious? How can the study of lighting be approached in a way that is creative, accessible, and serene? This essay draws on my teaching experience at Bahia Southwest State University (UESB) in Brazil, exploring innovative strategies for engaging students with both natural and artificial lighting. By emphasizing hands-on experiments and small-group collaboration, beyond purely technical approaches, it demonstrates how such practices can deepen students' understanding of dance lighting, transform ordinary spaces, challenge the audience's role, and imbue symbolic meaning in a black-box studio. The discussion will show how an exploratory and interactive approach to lighting can make the study both creatively enriching and educationally engaging.

**Keywords:** lighting, dance, space

## 1. A TERRAIN TO BE SHAKEN IN CURIOSITY

The words ‘academia’ and ‘art’ share some similarities. By definition, ‘academia’ is connected to studying and intellectual inquiry within a subject, typically in universities. In parallel, ‘art’ derives from the Latin and French words, both of which are linked to learning a skill through practice. The connection between academia and art occurs not only when universities provide and stimulate artistic activities, but also in a broader sense—by creating space for creativity and critical thinking to flow, driving scientific research across various disciplines.

Literature has shown that art and science can stimulate each other. American dancer Loie Fuller (1862–1928) was deeply fascinated by science and sought to integrate innovation into her dance pieces. Liz Heinecke notes that Fuller was friends with Marie and Pierre Curie, and she even inquired about the possibility of creating a costume made from radium. On the other hand, contemporary neuroscientists have turned to dance performances to explore brain behavior. Scientists like Foster et al., Jola, and Calmeiro have conducted studies examining how brain regions associated with pleasure are activated when people enjoy watching a performance.

The understanding of dance as an embodied, multi-layered, and complex art form has contributed to the development of new academic degrees, such as Dance Science programs, which focus on biomechanics and integrative health. These programs are significant for advancing interdisciplinary research and highlighting the benefits of dance for both professionals and audiences alike.

In Brazil, dance degrees are primarily offered by state universities, tuition-free, with the goal of preparing future dance teachers and professionals. At UESB, the dance degree offers a curriculum that includes modules in project development, performance creation and critique, and the contextualization of dance through critical thinking. In this setting, dance occurs both inside and outside the classroom, allowing students to test ideas in various venues and engage with diverse audiences, from classmates to passersby.

### 1.1 Some reasons to be serious

Lighting design as a discipline – or an art form as I like to think of it – is relatively young. (Dreyer, 2020, pp. 14)

The UESB, where I work, is 44 years old and introduced the Dance course in 2010 at its Jequié campus, located 367 km from Salvador, the state capital. My teaching covers various modules, including choreography, dance technique, dance pedagogy, and an introduction to fine arts and lighting design, with the latter two being my main areas of focus. Jequié is known as the “City of the Sun” and, alongside Dance, UESB offers seventeen other degree programs, including Biological Sciences (bachelor’s and degree), Nursing, Pharmacy, Physiotherapy, Medicine, Dentistry, Chemistry, Information Systems, Physical Education, Literature, Mathematics with a focus on IT, Pedagogy, Drama, and Chemistry (bachelor’s and degree).

One advantage of UESB is the shared use of some classrooms and conference rooms across different programs. While not simultaneous, this circulation of people in common areas, including the library, facilitates exchange and interaction between students from different fields. Teaching lighting design at such a diverse university can be both challenging and rewarding, depending on the available space and the teaching methodology I choose. These methods, in turn, also help to motivate me as both a lecturer and a practitioner.

Lighting design has intrigued me since childhood. I remember rehearsing on theater stages and struggling to understand my proper position in space. As I grew older, my curiosity deepened. Volunteering at the Movement Theater while pursuing my bachelor’s in dance at the Federal University of Bahia laid the groundwork for my current path in lighting design, which directly informs my teaching practices.

A challenge in teaching lighting design at UESB is the lack of a dedicated space with fixed lighting equipment for experimentation. Currently, the Dance and Drama programs only have two large studios with black walls and wooden floors for practical classes, which include movement-based activities like dance technique and creative processes. As a result, the lighting design module is often taught in a room with chairs and tables, a professor’s desk, a projector, and a whiteboard—far from ideal for hands-on lighting experimentation.

#### 1.1.1 *Seeds from buildings*

Solutions are personal. Asking questions helps. Concealing that you know it all can help. [...] The gentle thought that you want some new wrinkle, and the quiet and persistent “let’s try it” can be an interesting

challenge to the most entrenched. (Rays, 1998, pp. 113).

Working with lighting requires teamwork. The concept of “rays” reflects strategies used by a production crew to overcome challenges. My experience teaching lighting to undergraduate students at UESB is similar to this notion.

At the Jequié campus, UESB does not have a theater or a fully equipped studio for lighting. However, there are some instruments available, such as PARs and PCs. Unfortunately, there isn't a dedicated lighting cabin, so we have to adapt these instruments for use in temporary installations. Teaching lighting in a traditional classroom is useful for theoretical discussions, presenting historical data, and introducing lighting concepts. However, as the semester progresses, the classroom may become too limited for stimulating practical investigation into the subject. To address this, I structure each class with a combination of seminars, text study, discussions, and experiments led by the students, using a variety of formats (live and video) and locations—both indoors and outdoors.

Given the prevalent heat in Jequié, natural light is the starting point and key element for the students' practice. To begin, I often invite them to take a walk around campus to observe the behavior of the sun and how it affects them, passersby, and the appearance of buildings and surrounding environments. As part of this, one of the tasks is to create a performance where the audience views it from a lower perspective.

To encourage students to rethink public spaces, I first ask them to reflect on their relationship with the sun. These reflections are crucial for helping them realize how our moods and preferences - shaped by heat and intense light - can influence our experiences. Students explore both positive aspects, such as the joy of going to the beach, and negative ones, like the challenge of walking outdoors away from shade at midday. Following this, they are asked to walk around campus, analyzing how sunlight affects the buildings and the people passing by, and how these elements can inspire the creation of a small performance. The results, typically completed in about an hour, demonstrate various ways of transforming buildings into performance spaces.



Fig. 1. Lorryne Bomfim and Edna Cardoso

Fig. 1 depicts an experiment where students Bomfim and Cardoso sought to create a dance that emphasizes the interaction between sunlight, the building, the dancers, and the passersby within the given environment. The yellowish color of the building matched the color of one of the dancers' dresses, creating a camouflage effect. In contrast, the dancer on the upper level wore black, which created a visual contrast and provided diverse color and positioning cues for the audience.

One key point for discussion in the experiment is the use of and adaptation to shadows. Bomfim and Cardoso explored the idea of dancing in a shaded area. The sun is partly blocked by the building behind the steps where the performance takes place. This creates an interesting dynamic, with the performance occurring in a space partially masked by shadows, in contrast to the audience, who were exposed to natural lighting.



Fig. 2. Vanessa Braga, Eisa Santos e Emilio Sobrinho

Fig. 2 shows part of the audience for Bomfim and Cardoso's experiment. The audience consists of classmates and illustrates a strategy for dealing with the heat and brightness of daylight: standing in the shadow of a light post. The spectators' positioning at a lower height added spatial tension to the performance, already created by the dancers' placement on two different levels. This configuration emphasized the distance between the dancers and the audience, using light and shadow as performative elements.

As a result, the audience became active participants, compelled by the effort required to look up and feel the sun's rays on their faces. Some viewers raised their hands to block the sunlight. The dynamics of the performance suggested an imminent encounter between the dancers, at times leaving the audience to adopt the role of voyeurs—as though the dancers were meant to connect only with each other. The performance seemed to exist solely within the sunlight, designed to attract and engage a transient public.

## 2. CULTIVATING JOY

In his classic essay *Atmosphere as the Fundamental Concept of a New Aesthetics*, Gernot Böhme asserts that “entering a room, one can feel oneself enveloped by a friendly atmosphere or caught up in a tense atmosphere” (Böhme, 1993, p. 113).

In my work with students experimenting with light, I often engage with Böhme's dualism. While other atmospheres are possible, the core dynamic remains: light can stimulate actions that are perceived as either friendly or tense. Throughout the course, I encourage students to create friendly atmospheres, but they also frequently work with tension, which is essential for providing contrast and stimulating discussions about intention.

## 2.1 Many reasons to be serene

Tim Ingold asserts that people tend to observe objects rather than patterns of light, and that the eyes gradually assimilate reflections of light from surfaces (Ingold, 2000, p. 166). In my teaching routine, I often ask students to reflect on their own work and that of their peers before offering my opinion. This strategy encourages them to think more deeply about their work while being influenced by their classmates' perspectives.

An enriching aspect of teaching for me is observing students as they struggle to overcome challenges and tap into their creativity. To support this process, providing texts on the concept, history, and qualities of light is crucial for expanding their vocabulary and sparking inspiration. Students are often particularly curious about the idea that light is perceived through surfaces. The lessons on reflection, absorption, and refraction—topics that are part of secondary school physics—are revisited and explored through experiments that deepen their understanding of how light interacts with surfaces.

Another important consideration regarding surfaces and light is how they affect the audience's engagement with a performance. Factors such as exposure time, intensity, and the overall environment are discussed alongside experiments in visible and tactile lighting. In particular, experiments in a dark room are essential for exploring symbolism and conducting introspective work.

### 2.1.1 Flourishing of students

Accounts of dances, written by the choreographer, a dancer or critic, and drawings and photographs bring their own problems in being open to (mis)interpretation but therein lies the interest also, in the point of view that accompanies, or is built into the description and interpretation of the dance (Adshead, 1988, pp. 20).

Documenting dance through photos and using them to critique creative processes based on lighting is a challenging task. The angle, direction, and framing of the image are chosen for a specific purpose, which may not always align with the students' own inspirations. However, this reflection is valuable, as it offers one of many possible perspectives. Rather than being a problem, as Adshead might suggest, it serves to exponentially provoke more interpretations of the matter.

A key aspect of my teaching is encouraging students to experiment with alternative lighting techniques.



Fig. 3. Hillary Galvão

By analyzing the photo above (Fig. 3), we can consider strategies for making lighting move in a way that serves the dancer, as opposed to fixed lighting, which operates in the opposite manner. Depending on the group's progress and preferences, students experiment with ways of interacting with different colored LED lights in a dark room.

Color and intensity are often cited as key lighting properties (McCandless, 1932; Shelley, 2012; Chybowski, 2024). Other characteristics, such as angle, distribution, and movement, also play important roles. The literature generally suggests that lighting can be controlled, particularly with consoles equipped with dimmers. However, little has been said about the surface on which light is perceived.

Light interacts with surfaces, affecting their hue, value, and chroma. A lack of attention to the surface when working with lighting may result in color that “ends up drab and dingy, or overly intense in appearance” (Steffy, 2002, p. 51).

In Fig. 3, the properties of the space are acknowledged, but they are not dominant in the experiment. The dancer is the key factor for the lighting. Here, we can explore the idea of light as a partner to the dancer, considering how its brightness and color can influence the dancer's movement and expression.

How can LEDs suggest the notion of a dancer's partner, moving away from the concept of another individual? Following this, another intriguing question is the exploration of the limits of interaction between individuals—such as skin-to-skin contact—versus a more poetic and abstract relationship between the individual and the light, where the dancer's skin is enveloped by light and transformed, yet still in conversation with it. The appearance of LED devices in the space for the audience is also notable, reinforcing the idea of light as a partner. Additionally, it sparks creative insights through the rays of light, which are less noticeable in the air compared to conventional spotlights (such as PCs), but whose color intensity is evident on the dancer's skin.

### 3. CONCLUSIONS

Teaching lighting at UESB combines serious and fun activities, with a prevalence of the latter. By nature and tradition, lighting in Dance degrees is primarily taught in black-box studios equipped with professional lighting. However, this is not the case at my workplace, which allows for more creative freedom. This flexibility enables activities to be showcased to the University community on a regular basis, once a week.

The focus of this essay was student experimentation, which I associate with many of the most rewarding moments in teaching. Discussions on the quality of popular lighting equipment, creating light maps, and writing dance reviews based on lighting effects can be connected to the more serious aspects of the course. For some students, these activities are also perceived as exciting.

By balancing fun and seriousness, my role as a lecturer is to guide students through the module with calmness, encouraging discussions on various topics and investing in practical activities. A common challenge, particularly toward the end of the semester, is the anxiety or fear students experience regarding the workload—especially when tasks are poorly organized or when they struggle with time management. Creating a supportive and stimulating atmosphere is crucial to the success of the learning process, and this often has a positive impact on their further studies after the module ends.

It is also important to acknowledge that Jequié has two well-equipped theaters, which, through partnerships, contribute to the classes. I often take students on guided visits to these theaters, where they have the opportunity to work with local lighting technicians.

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