In this study, my areas of investigation are the art and science of light in a museological context. Light can affect human perceptions and emotions, focus our attention, create a visual mood and may be used to perform an investigative function. It can also be employed as a tool to represent an act, and as a medium. These are the cultures of light that I will investigate in this study. The central question I explore is how do museums operationalize the agency of light? I propose that agents deploy light in such a way that it not only transmits messages that are sometimes narrative, but also, in a somewhat coded way, has a formative function. I will argue that light is being used in innovative ways as a tool by museum staff, artists and other agents to facilitate and guide interpretation. I investigate light as a cultural concept from a cultural-analytic perspective. First extending the wider academic discussion of light from an artistic medium to an exhibitionary tool, then to the more specific uses of light as an investigative tool. I conclude the study with the exhibitionary medium of shadow, or the absence of light.

The two fields of inquiry from which my study and analyses emerge are cultural analysis and museum studies. In addition, the methods I follow are interdisciplinary and are drawn from related fields of practice such as art history, narratology and theatrical lighting theory. I understand the institutional apparatuses and technologies of museums from a post-structuralist perspective of relationships between power and knowledge. That is, I look closely at the discourse of “culture” produced and consumed by a particular subject position, that of the visitor or viewer of museum exhibitions.

Whether the object on display is a painting, sculpture, costume or an installation, decisions must be made on how to illuminate the object(s) that communicate a message to the viewer that he can interpret and from which meaning can be made. I seek to understand how the discursive practices of institutions such as museums deploy light as a powerful tool to aid interpretation. In addition, light can guide and manipulate viewers’ attention and interpretation. This relates to the Foucaultian notion of discipline where the movement and control of bodies is affected by the isolating power of light. Light is a kind of power that coerces the body by regulating and dividing up its movement and the time and space in which it moves. Does light make docile bodies or active participants? My different cases will bear out that both can be the case.
In the first chapter my analysis of contemporary lightworks situates the theoretical concept of light within the framework of the production of art and its relation to art history. I begin my analysis by discussing light as what Bal calls a “semantically empty” medium, which is, however, capable of affecting the perception of the viewer. In this chapter I investigate works by artists such as Dan Flavin’s untitled (to Henri Matisse), Joseph Kosuth’s Neon Electrical Light and James Turrell’s afrum-proto, all of which were constructed in the 1960s. More contemporary lightworks I survey are Seth Riskin’s Blue Light for György Kepes, Ann Veronica Janssens’ Red, Yellow and Blue, Carsten Höller’s Lichtwand, Olafur Eliasson’s 360° Room for All Colours and Mischa Kuball’s Private Light/Public Light, all of which, in one way or another, propose their own variation on the theme of light. I also analyze installations of Yayoi Kusama’s Dots Obsession: New Century and Ilya Kabakov’s The Man Who Flew into Space from his Apartment. Here, in order to understand the way light can affect the viewer, I trace the use of light from an art-historical perspective as an artistic medium from the beginning of the twentieth century until the present day in order to lay a foundation for discussing light as a narrative tool in the subsequent chapter.

I examine the intertwining of narratology and theatrical lighting in the second chapter. This chapter investigates the way the effects of light can augment the narrative of an exhibition. Rather than examining contemporary art, as in chapter one, this chapter takes the illumination of a contemporary exhibition of eighteenth-century costumes, furniture and decorative arts, organized in tableaux vivants, as its primary object of study. The analysis utilizes Bal’s narrative theory in order to uncover the ways in which light plays a role not only in the individual tableau, but also to bring together into a narrative the whole exhibition, which unfolds in a suite of period rooms within the Metropolitan Museum of Art in New York. Understanding how light narrates, or what it says to the viewer, prepares the ground for examining more specific uses of light within the museum environment.

The third chapter investigates the specific use of ultraviolet light as an investigative tool and atmospheric medium of illumination. After first discussing the physical nature of ultraviolet light, this chapter investigates the way three significantly different exhibitions use ultraviolet light to expose various attributes of their displayed objects. The first exhibition, Fluorescent Minerals from the Permanent Collection at the University of Richmond Museums in Virginia, explores the way curators have used an invisible medium as a pedagogical tool to instruct viewers about the scientific principles of mineral fluorescence and, at the same time, expose the hidden aesthetic beauty of the natural world. Next, I study how contemporary artist Regine Schumann deploys ultraviolet light to create a disconcerting “landscape” of colour and light. The
third exhibition I analyze is a didactic display and below-the-surface look at a specific group of Piet Mondriaan’s paintings known as the “Trans-Atlantic group”. Here, I examine the way ultraviolet light is used, non-invasively, to look below the surface of paintings in order to uncover the ways in which this particular group of paintings was changed by the artist from its beginnings in Europe to its eventual formal completion on the North American continent. Finally, in order to articulate an interpretative frame of this use of light I examine the notion of the “boundary object”, as conceived by Susan Star and James Griesemer. I consider the possibility of ultraviolet light as a particular kind of boundary object where, through the active agency of light, a translation of information between different communities of practice within the museum environment takes place.

The final chapter looks beyond the medium of light to illuminate the ways in which shadow is deployed as both an exhibitionary and artistic medium. Here, I investigate not only specific types of shadows which appear as darkened shapes on surfaces, but also the relative darkness that can communicate a suggestion of otherness, or performs a formative function in relation to the artwork. Shadows are considered from the standpoint of how they influence our perception. I first discuss their theorization by classical writers such as Plato and Leonardo da Vinci through the lens of Victor Stoichita and Michael Baxandall. Second, I consider several examples of the use of shadow in an exhibitionary environment. I discuss first the shadow cast by a fully-weighted ALARM missile displayed in the Imperial War Museum North in Manchester. Next, I discuss the way Constantin Brancusi deploys shadow in conjunction with his sculpture *Prometheus*. Thereafter, I return to the work of Janssens to see how shadow frames the viewer. Lastly, I discuss the case of Larry Kagan’s shadow artworks, where shadow is a medium necessary for the completion of the artwork. This chapter demonstrates how the luminous environment of the exhibition space is not only comprised of the effects of light, but that the effects of darkness and shadow also play an important exhibitionary role.

In the conclusion I investigate a contemporary lightwork by artist Helga Griffiths entitled *Identity Analysis*. Griffiths’ installation work reveals some of the most private and hidden information any human being can publicly disclose. She allows us to metaphorically enter her body and view the coded information of her genetic composition. This installation depicts the genetic DNA code of one unique, individual human being, and by extension the entire human race. She accomplishes this by deploying four thousand test tubes and Petri-dishes filled with fluorescein solution. At once, Griffiths engages with the discourses of both medical ethics and exhibitionism. With this lightwork, she confronts head-on the current debate on the privacy of...
personal information and its potential misuse through, for example, identity theft. This exhibit is an exposé exposing herself and the larger body politic, as if to say that the proliferation of personal information and the ensuing potential for identity theft is a scandal that ought to be dealt with in an equally public way.

This form of exhibitionism not only brings to the publicly-accessible surface, kernels of information in a coded way, but it does so by using the tool of light. Light creates semantic as well as physical bridges that connect the various strands of the exhibitionary story to the receptive viewer. Griffiths’ work thus helps me to tie together the four chapters of this study, in which I have demonstrated how the agency of light is operationalized and contributes to museological discourse by engaging the senses of the viewer, which in turn augments the dialogic relationship between the museum and its visitors. The complex and multifaceted operations of light, in a museological sense, transcends the disciplinary boundaries between the dissimilar types of exhibitionary practices analysed in this study. Light is exposed here as both a dynamic tool and a vibrant medium for displays across the exhibitionary spectrum.