

## Abstract

This research sets out to recognise the moment when light broke free and became a medium to dynamically interact with. It then explores how innovations in technology, admittedly mainly positive, have resulted in a loss of the 'live' quality of light. Finally it looks at current works exploring interactive technologies in live performance, and considers if this work can return the 'liveness' to light.

To investigate this question, I have looked in detail at the history of lighting design and technology from the age of the outdoor Greek and Roman amphitheatre, to the present day. I pay particular emphasis on the work of Adolf Appia and Edward Gordon Craig, as innovators in using the medium of light as an artistic medium in its own right. I explore the term liveness, using the debate put forth by Peggy Phealan and Philip Auslander as discussed in Matthew Causey's *Theatre and Performance in Digital Culture*. I then study some examples of live performances that have used interactive systems either as another character in the play, or as a method for altering the space around the performance. The chapter on *Lessness*, questions how interactive elements could be used in a production I have been involved in. Olwen Fouéré very generously gave her time to talk about the motivations behind her choices in this production. This interview also gave me invaluable insight into a performer's relationship with technology and design, and altered my thinking considerably. In the next chapter, I take Olwen's comments and integrate them into questions about what constitutes a live performance, whether the audience needs to be in the same place as the performer, where the performer is found in a world of technology. In conclusion, I discover that to achieve a liveness in lighting design, it is necessary to both embrace the current technology, but also discover new ways for the humans to interact with it in a more rewarding way.