Over the past decade the progress of digital technologies played a fundamental and decisive role in the creation of computer-based artworks. New extensions of cinematic arts have branched out, and digital installations began to be implemented not only on flat surfaces but also in public spaces. Video projection mapping installations involve laying out 3D motion graphics animations expressly designed for the structure intended to be projected onto. The scope of a conventional projection-mapping project is typically based on minimalist structures such as buildings or geometrical patterns. By creating a model of an architectural composition, a structure can be used as a canvas and the impression of a new emerging tri-dimensional world is created.

Our digital interactive installation project, Lifehouse, used the allurement of projection mapping to create a suspension of doubt. Despite the fact that we didn’t rely on high-powered projectors and manageable levels of ambient light, we sought to build up a unique experience of a remarkable and mysterious place, the Edinburgh University’s Anatomical Museum. Through the imaginative use of light and the meticulous culling of appropriate structures and patterns, we aimed to create alternative audio-visual anatomies; thus our technique resonated with this particular place.

For the most part, music and fixed sound effects scores are associated with nearly all projection mapping projects. Sound effects commonly embrace the spirit of most projection-mapping events, trying to convey a futuristic cutting-edge experience. As a result, they end up as being bombastic and overdramatic. Sounds tend to perfectly reflect the capabilities and potential of this innovative technology, resonating with the structures projected onto and mimicking their movement as they collapse, fluctuate, shift, oscillate, go to pieces, or reassemble. Another concept usually employed by projection mappers is making architecture assume the role of an instrument – for example making a building into a giant instrument, which would play an accompanying score.

However, our goal for this project was to create and disintegrate immersive multi-sensory experiences and recollections by imagining a synergy of visuals and sound. We aimed towards achieving a visually rich synaesthesia and aligning cognitive pathways between structure and sound.

For this purpose, the role of sound in Lifehouse expands on the conceptual apparatus developed by Michel Chion and particularly on his synchresis concept. Chion explains synchresis as:

‘the spontaneous and irresistible mental fusion, completely free of any logic, that happens between a sound and a visual when these occur at exactly the same time.” (Chion, 1990, 63)

Chion’s argument is that audiovisual coalescence can be unexpectedly constructed, as there is no inborn or anticipatory compatibility between image and sound:

“Visual and auditory perception are of much more disparate natures than one might think. The reason we are only dimly aware of this is that these two perceptions mutually influence each other in the audiovisual contract, lending each other their respective properties by contamination and projection” (Chion, 1990, 9).

Audiovisual juxtapositions seem to have
a natural and irresistible effect on our perception - but it’s not easy to comprehend that they’re completely misleading.

In applying this analogy to the techniques and languages of Lifehouse, we brought into play dynamic and structural models of audiovisual synchronization to much wider range of aesthetic and artistic outcomes.

For example, asynchrony was a central concept of Lifehouse. Sound-image relations were fragmented and modified in many absorbing ways.

Aiming to conjure up a drive of emotions and senses, the final concept of this artwork was to build a relationship between images, perceptions and space.

For this reason, all the sound work that I created mirrored our central idea – the environment of the Anatomical Museum as living and breathing body. As a result, sound was constantly evolving; all animations had different soundtracks, and they were triggered randomly. In the night of our event, I wanted to further enhance the continual expansion of sound by doing a live mix and diffusion of all the sounds. Therefore, sound was not synchronous all the time – and this created the illusion of an ever-changing soundscape, making the visitors stay for longer.

Moreover, sound accompanied similar animations as Michel Chion refered to as visual microrhythms:

“rapid movement on the image’s surface caused by things such as curls of smoke, rain, snowflakes, undulations of the rippled surface of a lake, dunes ... these phenomena create rapid and fluid rhythmic values, instilling a vibrating, trembling temporality in the image itself” (Chion, 1990, 63)

As all animations had a static flow, sound had a decisive role in influencing the temporality of the visuals. All animations had a microrhythm, understood as a particular inner movement.

Furthermore, by employing a narrator voice, I tried to approach the voice-over in an innovative, semi-fictional way. The voice-over pulled the audience apart from the visuals, but at the same time, it guided them to better comprehend the mood and pace of Lifehouse, acting more as an interior monologue rather than a traditional storyteller voice.

Last, sound married visuals by being composed in a similar way. Just as animations had the existing environment as a starting point, all sound effects were “situated” as well (most of the sounds were recorded in the Anatomical Museum, then processed and played back in the same rooms they were recorded in). This deeply resonated with Chion’s concept of vectorisation:

“sound vectorizes or dramatizes shits, orienting them toward a future, a goal, and creating of a feeling of imminence and expectation” (Chion, 1990, 13)

To conclude, I believe that all soundtracks associated with Lifehouse had more of a cinematic quality, being very different from soundtracks used in conventional projection-mapping projects.

In the future we’d love to explore more of the technology of projection mapping, by associating it with cinematographically-inspired concepts, in order to constantly explore the numerous ways this art form can be evolved.

References