

Live Audio-Visual Performance as a Cinematic Practice

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In live cinema we witness, like in many other recent digital art forms, the development of an artistic practice that uses technology to explore a symbolic and at times non-descriptive intermedia/te space. Elements known from traditional narrative cinema are eliminated and a type of performance is established that has more in common with electronic music and digital arts than with cinema as it has been canonized in the last one hundred years. Narration and its dramaturgical devices as well as naturalist representation are replaced by abstraction and the pure juxtaposition of image and sound.

The Cinema in Live Cinema

The use of the traditional cinema space and perspective establishes a frame of reference in which to experience a live cinema performance. Being able to immerse oneself in a virtual space formed by a rectangular projection screen and a set of loudspeakers, is an invaluable starting point for the enjoyment of most abstract and live cinema. We have been conditioned by Hollywood movies to take for granted that a rectangular framed image with a frontal sound projection presents a complete experience. The supremacy of the cinema as the ultimate entertainment experience has stunted the expectations and recent additions like surround sound and 3D-projection have added little to change that. Going back a few centuries to the *commedia dell' arte* and the origins of the opera, we see a comparable will to saturate the senses with all available technologies, something that also explains the total and irreversible presence of video in contemporary theatre and dance performance.

Live-performed cinema is an abstracted hybrid that fuses the theatrical gesture of opera with the more intimate creative aspects of a painter's or photographer's practice. Live cinema offers an escape from the constraints of the movie theatre, although that aspect isn't explored often enough yet. The use of different spatial dispositions and presentation forms is a trend that emerged only recently. Based on technological achievements developed for military simulators, scientific visualization and video games, live cinema rides the divide between the film studio and the concert hall, between an individual, private arts practice and a stage performance experienced by a multitude of people. The maturing of digital media technology enables a convergence of disciplines in live cinema.

There is no such thing as one unified style in live cinema. The cardinal points in the multiverse of styles are oriented both towards the photographic and narrative gesture through motion images and real-world depiction, and towards synthetic compositional practices that are more related to modernist abstract art and scientific visualization than to design. Unrelated to this, discussions on styles of live cinema often refer to issues such as gender, the 'cool-factor' and the personal backgrounds and histories of individual artists. By its nature the field is being cross-fertilized by contemporary practices in music, design, fine arts, fashion and various subcultures. In a cultural climate where a multitude of tendencies and trends explodes into even more small scenes and subcultures, the practice of live cinema has taken on a distinctive voice of its own. It exists in places like clubs, festivals and non-commercial cinemas where the boundaries between contemporary VJ practice and live cinema are often blurry.

Synaesthesia and Perception in Live Cinema

The ease of deployment of technology and the ubiquity of forms of audio-visual entertainment have brought a multitude of possible situations for live cinema. Nonetheless very few surpass what can be considered the canon of contemporary media use. Synaesthesia, the fact that we can blend two or more sensory experiences, is one of the basic assumptions of multimedia. But this rarely exceeds what has been a standard of immersion since the introduction of sound in cinema: the audiovisual form.

The merging of seeing and hearing in a synaesthetic manner often fails in live cinema. Music is simply added to image, or there is nothing more than a hierarchical and illustrative relationship between the two. Several reasons can account for this failure. One of them is the fundamental difference between the senses.

On a physiological level hearing and seeing do not share the same mechanisms. Comparing the cochlea and the retina makes it obvious that we are dealing with two fundamentally different channels to our physical surroundings. We perceive the pressure wave in air as sound and the light particles or waves falling onto our retina as images. These phenomena occur in different media and oscillate at different orders of magnitude. The filtering by the perception process further differentiates the two. Seeing is acted out by looking, which is a reading process on a single perception point roaming across the scene in front of the viewer. Contrary to that hearing or listening is a massively parallel activity, where several streams of content are perceived at the same time (polyphony) and the acoustic

elements are combined to form the perception of timbre and overall sound.

Truly synaesthetic perception sends the stream of sensory input from one perceptual channel to another one. This happens after the first layer of the physiological apparatus, somewhere along the path to integration of the stimuli into a coherent world-view and our consciousness. This is not something non-synaesthetic perception can regenerate. Multisensory media can therefore only produce a rough approximation of that state.

Every artist working in the audiovisual field has to develop a sensibility for this difference. Every live cinematic expression that deals with abstraction has to find ways and means to establish a relationship between the two senses that will ultimately boost the impact of the combined audiovisual expression. Striking a balance between eye and ear, between the differing perception of temporality and density by the two senses is most crucial. Temporal contrasts, structural change, level of abstraction and density modulation are some of the domains that need to be addressed differently for the eye and the ear. Apart from the purely physical impact of volume or luminosity, the relationship and balance between these intrinsic attributes is what makes a performance fuse for the senses. A sense of coherence can only be achieved by finding elements in one domain that relate to the other sense on a more abstract, maybe even emotional level, and by mixing them in a way that keeps the seeing and hearing in balance.

The perception of the performance differs for performer and audience. Unique to the performer is a consciousness of internal processes and of cognitive control over technical aspects of executing the performance. While 'playing his instrument' the performer also needs to be aware of the overall flow and impact of the presentation. The performer needs to cultivate an inward and an outward perspective of the actions and must be able to adjust according to changes in both domains. The audience might have a similarly two-sided perspective if the focus is set not only on the content but also on the context of the performance. Reading and understanding the content could be strongly influenced by the location in which the work is being presented. Perception might also be twofold if it switches the focus from the exterior phenomena of the presented piece performed to the interior emotion or imagination evoked by it.

Composition and Abstraction in Live Cinema

Live cinema has its origins as much in music as in film and has developed or transferred techniques that deal with composition on a different level from that of film editing. Most of

the time the temporal structure of a live cinema piece will evolve with a musical rhythm and form, its arch of tension resembling a piece of music rather than a film. This is closely related to the fact that abstract content not necessarily has to follow a narrative logic and can therefore obey its internal affordances more freely. The structure might resemble the strict form of a carefully constructed composition or the free flowing association of an improvised piece, depending on the attitude of the author. Open structures in live cinema are often associated with an approach resembling an instrumental relationship with technology whereas planned structures are often thought and executed with techniques that could be called live editing. One might argue about the dividing line between the two, but it is more important to discuss whether purely pre-planned live-edits actually belong to the domain of live cinema.

Abstraction prevails in live cinema. First of all this concerns purely artistic research in the domain of abstract expression – something which music shares with painting. But abstract elements have one other, quite important role to play in live cinema: they defeat the conditioning to interpret audiovisual pieces as narrative or representational. Music, specifically in non-melodic forms, brings to live cinema elements of non-representational and non-narrative, evolving structures that form a frame of reference for abstract time-based audio-visual work. The early abstract cinema pioneers tried to create a cross-sensory experience by visualizing music with simple graphical elements that were composed with a rhythm and spatial disposition that mimicked musical form.

Contemporary abstract cinema is more indebted to the field of generative art and algorithmic composition than to traditional musical structure. The reduction and abstraction of the constituting elements expose attributes of form, color, timbre, and space, and allow a combination of them across the senses in a way that generates a representation-free mental space. This space is less crowded and can intentionally leave blank areas to be filled with the perceiver's imagination.

One of the fundamental processes taking place in a viewer or listener, be it of a piece of music, a film in a cinema, or a painting, is the recognition of something familiar. This can generate a strong emotional feedback. Very few works of art, design or music are so removed from our everyday world experience that there is not any type of recognition or resonance whatsoever. Recognition is a fundamental aspect of the gratification process produced by perception. In an abstract art-form recognition will occur less on an object level and more on a level of resonance and self-reference. A resonance occurs when an abstract

entity is related to a personal experience unique to each viewer or listener and a self-reference occurs when a notion, intuition, emotion or imagination generated by the excitement through the abstract expression is recognized. The stronger the sense of disembodiment and distance to realism is, the more these transference processes will occur, up to a breaking point where alienation and the subsequently generated feeling of unease will occur and pull the audience back to the perception of their body and the physical space it occupies.

Another important aspect in the use of abstraction is the creation of a utopian space. The abstract elements and their primarily surreal appearance tend to generate the notion of a separate space populated by entities that do not obey the laws of physics. These elements often exhibit behaviors that will seem utopian or hallucinatory such as metamorphosis, merging and spawning. These behaviors are reminiscent of biological processes of a microscopic scale, or in the oceanic domain, and of physics as experienced on a cosmic scale. For most of us the mental representation of those spaces is based on images and thus imaginary and purely virtual. It is natural that we would amalgamate abstract audio-visual experiences that produce such a high degree of disembodiment with virtual and utopian spaces. (As a side note I could add that game worlds present one more important point of reference.)

In live audio-visual performance the mode of action shifts from a narrative linear flow to a general attitude of exploration, juxtaposing and referencing a multitude of elements. These elements range from semiotically charged graphical or musical signs to almost completely unknown modes of expression that evoke rather than demonstrate their content. The levels of abstraction obtained are comparable to those in contemporary graphics, modernist painting and earlier abstract cinema. But the dynamic, dramaturgical and temporal structures are more closely related to experiences in popular music culture and to a musical practice covering song form, contemporary classical music or the free flow of improvised music.

Software and Programming in Live Cinema

Whereas traditionally software has the status of a tool to generate a product, in live cinema the aim is to use software as a virtual instrument for realtime expression. Procedural and generative elements derived from for example electro-acoustic composition are integrated with gestural control to build an entity that is being performed with rather than used to produce content. The convergence towards a few generalized software paradigms and the use

of laptops for performance, has spawned a new type of human-computer interaction in which the relationship between performer and software is similar to that between performer and musical instrument. The virtual instrument opens an area more adapted to the exploration of media than the linear workflow of office machines.

The methods and materials used in live cinema cover a wide area. Visual media are mixed by using a variety of compositing techniques derived not only from film but also from typography, photography or graphic design. Processes developed for scientific visualization, simulation or mathematically formalized representations are appropriated for artistic purposes. In the compositional practices of music this process has a much longer history. Algorithmic rules for manipulating sound material have been used long before even twelve tone music. Generally speaking the processes and methods of manipulating image and sound have gained an independent status as an essential element of the creation process. They form an important constituting part of the skill of a live cinema author, and are developed to new levels of virtuosity.

Two trends can be observed. One leads towards the total absence of an author in favor of an autonomous algorithmic system that performs within the playing field set out by the programming of the author. The other trend is towards semi-autonomous processes that are controlled from a higher level and are guided towards the desired result without a completely deterministic attitude of complete control. The exposure to systemic thinking and to advances in the programming of emergent structures has led to an artistic practice more concerned with psychologically poignant expressions, than with the details of control. It leaves the low level details to their own devices and navigates a largely unmapped and non-finite territory of expressive potentials.

Performance in Live Cinema

There is a great diversity in the ways performers interact with their 'instruments'. The majority will always be stuck to the typewriter interface offered by today's computers. But a growing number of practitioners develop the human-computer interface of their instruments in order to have more gestural, intuitive and direct access to whatever layer of interaction they have set up in the software. The trend points in the direction of gestural, multi-modal sensor inputs used in an almost instrumental fashion.

In many contexts a sufficient awareness of the element of live-performance in live audio-visual work is still underdeveloped. It is assumed that a full live cinema experience

consists of no more than a coherent output in both sound and image. But the question is in what respect the experience of live cinema performances differs notably from a normal cinema experience? One key element that defines live cinema is the presence of the author in the performance space. This gives the audience a feeling of immediacy and directness, by seeing the actions of the author. Of course this is a knowledge that needs to be acquired, since there is no inherent unity between a gesture and its result in technological media. But building on their own experience of acting through mediated computer interfaces the audience will try to interpret the body language and gesture actions of a live cinema performer.

There are fundamentally different approaches to performance, and the background of the performers can range from graphic design and classic film to live-electronic and improvised forms of music mixed with media. All these fields come with different attitudes. Designers tend to be less body conscious and try to focus on the execution of their work without considering the visual expression they transmit through their physical presence. Musicians tend to be more stage conscious and might even bring over-emphasized instrumental gestures to their performance. Both influence the way a piece or performance is perceived, either through the lack of presence or through the distractive use of showmanship.

The physical place of the performer in the cinema space is a further element to be taken into consideration. Many performers refuse to appear before an audience, citing the intention to let the work speak for itself. Others place themselves behind their laptops in such a way as to make the screen their focal point of attention and hide the remaining minimal expressive cues that might be read from their body language.

Of course it would be a simplification to say that either of those attitudes fail to produce their effect. It depends greatly on the type, the content and context of the performance. Independent of the placement of the performer a feedback-loop of energy can come to exist between audience and performer, in the exact same way as in all the other performing arts. Ignoring or counteracting this energy means robbing the live cinema experience of one of its strongest, most expressive elements.

Live cinema establishes an experimental space in which generative, digital art and procedural expressions fuse with the instrumental gesture. 'Realtime' can be experienced in the union of the performer's action with the visible and audible result. The role of the artist evolves to become that of a performer whose presence as the author and actor in the cinema space re-polarizes the cinematic moment.

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