

Holography and Its Potential

Subjects: Others

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In *Camera Lucida*, Roland Barthes discusses the capacity of the photographic image to represent “flat death.” Documentation of an event, happening, or time is traditionally reliant on the photographic to determine its ephemeral existence and to secure its legacy within history. The event is date and time stamped by the photographic document, which stands as proof of its taking place. However, this type of document is often unsuitable to capture the real essence and experience of the artwork in situ. The depth and varied nuances of the event go largely unrepresented in this type of record. The two-dimensional photographic document resigns the embodied and three-dimensional experience to a flat death.

The hologram, with its spatial and three-dimensional realization of an image, offers a potential solution to this problem. In providing a view of the dexterity and depth of an inert object or human body, it creates a more comprehensive photographic document as an act of legacy. Although this cannot fully account or attest to the experience (as that can only occur through active and present observation), the three-dimensional representation within the hologram allows for greater understanding of ‘being there’ at the time of its happening. The hologram therefore can be suggested to be a more suitable means of documentation for the active and first-hand art experience. However, there are issues concerning how this type of photographic document functions within an art context. Appropriateness and suitability is as open for debate with the hologram as with its two-dimensional counterpart, concerning how it successfully operates as a document. Attitudes to methods necessary for artistic production and holography’s place within the art process can be responsible for this problem. The seductive qualities of holography may be attributable to any failure that ensues, but if used precisely the process can be effective to create a document within an art context. The failures and successes of the hologram to be reliable as a document of experience are discussed in this article, together with a suggestion of how it might undergo a transformation and reactivation. When situated as an integral component within a new artwork the hologram exists both as a document of the past and an experience in the present, and the article will offer an example of how this can occur.

Keywords: ephemeral ; document ; documentation ; bartram ; hologram ; holography ; artwork

1. The Wonder of Things

The hologram is a thing of wonder. It offers an apparent view of an object made three-dimensional on a flat surface. The image glistens when enlivened by light touching the object held, as if in suspension, at its centre. Moving one’s position around the surface of the image, whether by turning the hologram between the fingers if small enough, or by shifting the eye from one side to the other, the object within is momentarily revealed before it disappears. Out of view the surface appears dull and lacklustre. The image is visible and ‘exposed’ only in certain viewing positions. Seeing these light-enhanced objects within the hologram widens the eyes as it brings a type of observational delight. This animated snapshot accounts for some of its wonder, because it appears to emerge out of the depths of the holographic surface, somewhat like an apparition. From the dark and un-descriptive surface to the light saturated object suffused with depth, it opens up a challenging and questioning regard for its very existence. How can this be, and what made it? Produced by lasers and reliant on technology it is beyond most of our frames of reference, comprehension and experience. This, together with its light possessing and yielding properties, informs the onlooker about how it is perceived triggering a sense of preciousness and magic. The holographic process is a systematic re-articulation of the relationship between the object and its fixity through photographic means. Holding the moment of capture of the object in stasis, its three-dimensionality allows the historic and contemporary to exist simultaneously. They are present concurrently. This is beyond photography, a two-dimensional means by which to hold captive a moment that cannot be revisited. Time stops when the shutter closes with photography. Holography, through its ability to capture convincing three-dimensionality, therefore imbues a sense of being active. One can see different angles and perspectives of the object in the hologram that gives a sense of being present and ‘there.’ Turning the three-dimensional subject into a two-dimensional photographic image, the hologram

presents a perceptible alternation between lens documentation of a time and place and its active proposition in the here and now. A document that is not a document; the past and the present; a representation of life that is in fact dead. Ephemeral, spooky, unreal, un 'there'.

If we are to regard the eerie in image making, Roland Barthes and his critical consideration of the resonance of the photograph seems relevant. Although Barthes discussion in *Camera Lucida* mainly concerns his specific reflections on photography, such as the history and constructed essence of the image, it also highlights deliberations of resonance, melancholy and death. The photographic image represents a death of a specific time, and reflects posthumously on a particular moment. Barthes observed that with, “.the photograph we enter into flat death,”^[1] yet with the hologram there is a representation of death (in terms of documenting a time past for Barthes) given renewed life through situating the subject spatially. However, its mutability does not allow for physical and conceptual stabilization in the sense of Barthes observations, or for a precise response to its current state. In a hologram the three-dimensionality of the image of the subject, which is different from its flat photographic counterpart, does not present a fully flat death, but a more spatial representation. This adds critical complexity to the process of holography and the hologram (which increases its sense of wonder), forging a relational adventure between the perceived and actual understanding of the image and its subject. Establishing a constructed criticality from 'perceived' to 'actual' knowledge of the artwork in this way removes it from the conventions that determine the three-dimensional, the site-specific and the embodied. It is not static as an object might be perceived, not a work that is ever finished. This defiance ensures that the aspects of criticality are both engaged and of enduring interest; a relaxation and distance from perceptions of its intended analytical framework occurs, as one that is taut and flexed enters consideration. It does not stop still to allow meaning to settle and for distance to be born of acquired knowledge, but asks that an individual and independent experience determines how the image/object appears at a particular time. This requires a confrontation and immediacy with the hologram dependent on the conditions in which it is sited or installed.

Imbued with defying spatiality in its' two-dimensional flatness and three-dimensional portrayal of an image, the hologram is both an active representation and reflective, factual document of the past. Documentation of an event, happening, or time is traditionally reliant on the photographic to determine its ephemeral existence and to secure its legacy within history. Essentially, the photographic document proves it occurred. However, if we are to follow Barthes idea that the photograph is a potent and responsive emblem of death then its appropriateness for referring to the ephemeral is questionable. The event is represented, but the experience is lost and cannot be re-visited. Here, the photograph acts as a memorial to, and of, the event. Its flatness does not allow for an evocation of embodiment in depth, as the depth of the actual experience is unrepresented. The hologram with its three-dimensional references is a memorial with depth, and as such it makes the experience appear a little more present. Holograms bring the event closer to the now, and this is of value for representation of the active or temporal within the document.

Holography proposes and demonstrates tensions between time past and the present, within a document that both evidences and uses itself historically and contemporarily. Through the spatial and temporal distance between the image's photographic capture to its transformation to hologram, the document and its three-dimensional reanimation coexist. This not only sets the agenda for past and present, but also for the flat and the spatial. Holography, therefore, is a unique demonstration of how the critical tensions engaged in two- and three-dimensional image making can exist in synchrony, as each occupies the same territory of the plane of representation for the image. This unyielding tension sees possibilities for photographically capturing the ephemeral object beyond the resignation of being purely archival.

2. Preservation of the Ephemeral - Performative and Live Art

Ephemeral artworks uncomfortably transform into an archival document through still or video photography, and this evidences their existence, but denies their transient intentions. They seek an active and present audience, witnesses connected by both event and experience, but they also need to be preserved in some way. A paradoxical situation: how can ephemerality and transience be preserved for artworks that rely on this conceptual premise when photographic documentation is the antithesis of such an activity? A solution may lie in responses to the active and present tense of the artwork itself and how this can accommodate fluidity. The fields of performance and live art have long tussled with the question of correct and appropriate methods to document their experience. The spectral conceptual and visual spectrum within holography may offer a solution. A hologram's light infused three-dimensional portrayal of perspectives allow a viewer to 'see' the 'body' or corpus of the image through access to multiple viewpoints and angles. Such a process is not unlike being present in the space of a performance. The movement necessary for access to the depth and nuances of the holographic spatial image is responsible for the enlivenment of the object held within it, and the shifts in a viewer's position affect how they accesses its visual references. In effect it is responsible for how they 'see'. As a simultaneous document

(as an image captured of a time and place) and *non*-document (as a re-represented three-dimensional version of that time and place that is seen only by movement of the onlooker's eyes and body) the hologram accepts and refutes the conventional, which can add value as a response to ephemeral art.

3. Holography as a Possible Creative Process

So holography and holograms appear to be an impressive addition to the potential of the document to be enlivened and reactive to the present. This quality, coupled with the delight of witnessing the image when exposed by light within the surface, sees the hologram become of interest to artists and those working beyond the field of holography. But is it the 'oohs and 'ahs' responses to witnessing a hologram's light suffused surface that really makes it attractive to artists, and is it really viable as an alternative? Beyond the technologically productive capabilities of holography, artists acknowledge its capacity to produce an artefact in its own right (sculpting or drawing with light. How successful this is in creating a coherent and succinct visual narrative however, is debatable. Bruce Nauman, an artist making holograms in the late 1960s, explored the medium for its capacity to articulate and document the moving body. This activity is also present within the practice of performance artists such as Carolee Schneeman, which the theorist Amelia Jones refers to when discussing her artwork in *Presence' in Absentia: Experiencing Performance as Documentation*. Ephemeral art and the photographic document and documentation for Jones are mutually useful as the "event needs the photograph to confirm its having happened; the photograph needs the [body] art event as an ontological anchor of it's indexicality." [2] The remains or evidences of Schneeman's live performances in the 1970s specifically, as discussed with Jones in *Perform, Repeat, Record: Live Art in History*, are available as still images, and these, as the artist states "become the work and a substantiation of it." [3] For Schneeman, the document is akin to being an "archeological discovery" of the once live and alive, whilst also performing as a distancing from its original criticality. [3]

Taking this view on photography, holography, then, seems a more viable and useful means by which to attest to an event, particularly as it adds greater three-dimensional depth to better reflect the spatial experience. Contorting his body and face to make two series of holograms, *Making Faces*, 1968 and *Hologram H*, 1969, Nauman tested the medium's critical malleability in response to documentary conventions. In these series, Nauman performed directly to the camera setting the experience of the live within a relational discourse of body to lens. So, his performance within the holographic studio, which used a pulsed laser and complex optics to freeze a nanosecond of time and space, offered Nauman the opportunity to make a portrayal the (his) body as active and performing. These are successful to a certain degree and develop an intriguing response, particularly as they were made at the end of the 60's when holography was not widely accessible beyond the science and engineering laboratories in which it was being developed. Certainly it was not used by many artists at that time, who perhaps could not afford such experiments (maybe this is the preserve of the wealthy and successful, but that is for another essay). Yet still, Nauman used the holograms in *Making Faces* as the source for silkscreen prints in 1970, hereby making a translation of the three-dimensional image to a static representation of a different type. Did Nauman believe the hologram was not enough, or was he seeking to extend the process into a multi – relational, -faceted and –composed documentary only to be disappointed? Perhaps the more traditional means of making artwork seemed more suitable, more viable to the artist and the artwork, in a time when wonder should perhaps be limited to small and discreet outings and experiential opportunities. Or the hands on process of 'making' was necessary to fulfill the visual existence of the idea for the artwork for Nauman, to ground it as artwork.

4. Containing the Space - Aspects of Loss

Bruce Nauman was concerned with the body, the moving, the dexterous, the animate, which brings an engaging critical consideration for the hologram in this context. Whatever the failings or unfulfilled effects of the process for the idea to satisfy the demands of the artwork visually (if any exist), there is an engaging and exploratory process brought into the critical framework of making by using holography to capture the moving body. It's suspension within the pictorial two-dimensional plane seals the image of the body into a box, and one that is given greater emphasis through the three-dimensional perspective afforded by the hologram. In some ways it holds the body as if in a cage or cell, a captive body held in stasis and suspended animation by the frame and depth of the hologram. Cells, and spaces of containment are intriguing in regard to issues of isolation and confinement, and perhaps this is where the hologram is of use. This act of physical and illusionary containment suggests the object within its surface is of interest and value. In some ways what it offers best is the spectacularisation of the object. It makes it important to see, by giving the object priority within the image plane.

There are nuances and subtleties created by the surrender of the performing body to the stasis of the hologram, an inertia is created that goes beyond the standard form of documentation. It 'sort of' works in a way that a conventional still two-dimensional photograph of an event cannot, which is further enhanced by its need for activation by light and movement of

the eye. A doubly embodied gesture activated by viewing. A reasonable vehicle for documenting the live body in the right conditions, but what of those who engage with holography to capture the presence of a sculpture? Louise Bourgeois makes sculptural 'cells', spaces of occupation and containment that suggest a holding and presence of the body, even if that is not in situ. Physical and materially driven her sculptures are referential of the body absent and (suggestive of post) mortal. In certain circumstances it appears as if a previously occupying body, or bodies, have recently left. Indeed, when details resembling the physicality of a human are included in her sculptures, they are dismembered and isolated, heralding images of torture and death and the body past. Somewhat reminiscent (for me certainly) of the sexual explicit, multi-body psychoanalytically informed narratives by Georges Bataille in his novel of 1928 the *Story of the Eye* ^[4] illustrated by the artist Hans Bellmer, they speak of narrations of past acts of disembodiment and violence. Limbs are plaster (for example) rather than flesh, made rather than once living body part. When constructed to include these details, such as in the artwork *Leg* ^[5] of 2002, the sculptures embody the essence of the living and corporeal represented as dead and immaterial. This effect is demonstrated in the holograms made by Bourgeois that were exhibited in *New Order: Art and Technology in the Twenty-First Century*, at MoMA, New York in 2019. ^[6] The sculptures of Bourgeois evoke the eerie and macabre through their use of cast and fabricated objects. The holograms at MoMA are in keeping with this intent, but with the addition of the sense of movement that a hologram imbues through its interaction with the observer and exhibition site. In her Guardian newspaper review of the MoMA exhibition, Frani O'Toole suggest the holograms create "their own medical moving images." ^[7] The holograms contain images of the objects common to the sculptures of Bourgeois: cells, iron beds, cages, and dismembered human limbs made in plaster. They appear as if snapshots of a particular viewpoint of a sculpture's exhibition installation, bathed in light. In some ways the holograms create a deeper connection of intimacy with the observer than the sculptures seen in situ, as they are drawn into observation at close range. Scanning the surface of the hologram to reveal the image, rather than stepping back in order to 'see' the full detail of an exhibited sculpture, the observer is drawn in close to intimately engage with the macabre worlds represented by the artist. An intimate 'seeing' - torture and dismemberment are seen in their after effect at close and intrusive range.

Barthes stated in response to Sartre that there is a "poverty of the image" that comes to fruition when denied of full narrative, as one would find in an illustrated novel or text. ^[8] There is certainly a poverty created by the history that is held within a photograph, one that can incite mourning for the lost. A yearning is created for time experienced, but gone, or simply not encountered. Peggy Phelan states the, "centrality of the single perception (the "perfect" viewpoint) is fortified through the experience of its loss, just as the endless process of establishing psychic identity is punctuated by its loss" and any eventual mourning is part of the process. ^[9] I propose that mourning is inevitable for visible and experiential loss (whether through having seen and not be able to revisit as with conventional gallery works, accessing the document and documentation after missing the event, or seeing nothing and hearing secondhand) and part of the necessary posthumous and affective aftermath. At the very least there is a disaffection and sense of experiential *lack*, which initiates a process of dispossessed and distanced critical mourning. This distancing and separation from the density in criticality of the original encounter dilutes affective potency for the artwork, leaving the recipient deflated and experientially short-changed. Although Phelan's notion of invisibility giving legacy maintains a truth to the original (and it is an approach that I attest too as imagination, as an embodied response, pertains more to the experiential, and of being more than a document), it still carries the weight of loss. One suffers the effects of lack of inclusion in the dexterous and complex breadth of the artistic act when not experienced through embodied response in the same space of its happening.

5. Not Witnessing

The lack of full reference and testimony to an enhanced experience is where any failings of holography reside. This is due to a 'not witnessing'. The loss of the actual and 'within the present time' experience is a felt when viewing the hologram – although it may represent the embodied and three-dimensional reality of an event more than the two-dimensional photograph, it cannot replace 'being there.' Instead it acts as a substitute or replacement for the actual experience. For although a more active document than the traditional, it still did not satisfy the necessary testimony of the performing body for Nauman, who sought to make screen prints to satisfy his claims for the legacy of the artwork. The representation by Bourgeois of her sculptures in holograms could in no way account for being there and seeing them as the artist originally intended. So the act is a loss, and sets up a mourning. A loss to criticality is the consequence of a lack of first-hand experience of specific details, colors and vibrancies. The artwork here sets its own agenda in acknowledgement of loss and grief, to combust when conditions dictate, and the artist predetermines this to intent. The artist may feel the loss himself or herself, but they know it will expire, as that is the ephemeral artwork's intention. The viewer however has no way of managing their grief. and are unlikely to even acknowledge this state, as they have no say in its life, either in the moment or thereafter, making the document and documentation of ephemeral artwork troublesome. This highlights affective mourning of the neglect of experience when perceived second hand.

An answer may lie with precision and construction. The hologram requires the same level of criticality to be an artwork as a performance or sculpture, and to be treated as a medium of making as any other. A requirement for this may be, but is not absolute as with the right agenda the hologram could flourish as an artwork in its own right, for it to become a component part within an artwork. Strategically, with certain conditions in place to position it integrally, the hologram can fulfill the critical demands of an artwork to see it transcend the legacy of the document. When integrally positioned with other components to create a dialogue through relational value, the hologram is held in a taut limbo between life and death, of living and loss. In this situation it is in tension between document and documentary through a systematic re-articulation of the situated art experience and its photographically fixed representation. Here the historic (representation within the hologram) and the contemporary (of its place within a new situation) are simultaneously represented within a constructed assemblage. Invariably this may include a confrontation of low and hi-fidelity values, as the objects to which it relates draw the hologram into a critical discussion of complexity within spatial making. The hologram relies on hi-fidelity to exist, and those lasers and skills do not come cheap. The more conventional art object or installation might take skill and training to make, but the artist's hand alone set to work in their studio is often the low-tech agency responsible for their critical dexterity. Combining hi- and low- elements is where it gets interesting for the hologram within the context of the artwork.

6. Conclusion

How might an artist negate the effect of loss when making artwork as a hologram if this creates a void in representation of intent? Indeed, can the sense of mourning for the experience of the art object represented within the hologram ever be surpassed if its reality can never be visited in real again? The wonder of the hologram itself can take over, seducing the artist to use it experimentally without possibly realising its capabilities do not fulfil the remit and intent of the artwork. This is perhaps what led Nauman to make screen prints of the original holograms in *Making Faces*, to continue the trajectory and story of the artwork as if to engage it in a two-step process of evolution. Bourgeois acts are somewhat defeated for the original sculpture itself, already immobile and secure in their physicality in situ, but resigned to a deathly blow by their new representation and translation into a holographic image. With the right conditions and circumstances however, the hologram can exist as a vitally engaging contemporary artwork, but there is a need to consider how it performs in its contemporary existence. In contrast to the work of Bourgeois and Nauman the difference lies within its being drawn into the here and now by a re-configuration of its value beyond the magic of its making. The 'oohs' and 'ahs' need to be ignored to get to the core of the hologram's possibilities and potential. It can be contemporary, but it needs to be treated as a process like any other, and one that is only included in the making of an artwork if it is necessary to create knowledge and understanding of its intent. The science needs to embrace the art and not vice versa – then we might get somewhere in its progression within the language of art.

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