

Materiality, Embodiment and Affordance in Paul Grahams *a shimmer of possibility*

Hans Dieter Huber

Abstract

First, the question of what a material picture is and what is meant by an image is discussed. We do not clearly distinguish whether we mean a physical object, a pictorial representation or a mental image that arises in our brain. The pictorial surface of a material carrier is the interface between the physical picture and the mental image. In contrast, our way of speaking of a pictorial representation works quite differently. Material picture and pictorial representation are structurally coupled. The representation cannot exist without a material carrier. The material picture *embodies* the pictorial representation like the actor embodies the role. The pictorial representation is only partially determined. It contains spots of indeterminacy that are filled up by the viewer's imagination. Gibson invented the word *affordance* as a replacement for the concept of value. Affordances are what things offer a living being, what they 'provide' or 'allow' it to do. The fundamental problem with his theory lies in the attempt to construct a 'direct' and 'unmediated' approach to reality. The objectivism implicit in his theory oversees that affordances are neither 'given' nor 'direct' 'properties of objects. Affordances are the result of active attribution and evaluation by a scientific observer. The photographic series of Paul Graham's *a shimmer of possibility* exists in different materialities, namely as various photobooks and sequences of photographic colour prints on the wall, which provide different affordances. The photobooks and the photographic sequences are embedded into a space of potentiality out of which they are brought to actuality through a concrete process of aesthetic experience.

Introduction

My text is divided into four parts. Firstly the question is discussed what a material image is and what is meant by a pictorial representation. In the second part I will discuss Gibson's theory of affordances and propose a critical reinterpretation. I will argue that the concept of a material affordance is not suitable to describe what takes place inside an observer when he looks at pictures. We need to extend the limited theoretical basis to include visual, mental and aesthetic affordances. In the third part I will use Paul Graham's photo project *a shimmer of possibility* as an example of interpretation. In the fourth part, I will discuss the question of the various material appearances of the project and to what extent the photographs can be said to afford something to the viewer's aesthetic experience. My conclusion will be that the physical photographic object exists within a space of possibilities. Only if a viewer actually perceives and apprehends it, it is taken out of that space of potentiality and becomes a specific actuality as an aesthetic object. From this constituted aesthetic object different affordances can then retrospectively be re-attributed to the physical object as its 'properties.'

Different Ways of Talking About Pictures

Most of the time our talk of pictures is ambiguous. We do not distinguish whether we mean the picture as a physical object, a pictorial representation or a mental image that is created in our brain. I will use the term 'picture' for the physical object that exists in the world like any other everyday object. I will use the term 'pictorial representation' for a colour structured surface on the front of a picture. I reserve the term 'image' for the mental result of the perceptions, fantasies, attitudes, expectations, memories, prejudices and stereotypes of an observer. Colloquially, the difference between the two terms can be summed up with the phrase "You can hang a picture, but not an image."¹ Images in this last sense are always mental and exist in a completely different material domain, namely in the neurobiological, cognitive domain of the observer. I deliberately allude to the relationship between the terms image and imagination, since imagination plays a central role in the construction and synthesis of images in the cognitive domain.² The pictorial representation is embodied in the picture. It is at the same time a boundary between the front side of the material picture and the surrounding medium.

The pictorial representation on the outer surface of a pictorial carrier is the interface between picture and image. Whether this colour-structured surface is physical or mental depends on the side from which the boundary is observed - the material embodiment of the surface on the pictorial carrier or the colour-structured ambient light reflected from the surface and transmitted to the point of observation occupied by a person.³

The picture as a physical object is complete, three-dimensional and determined from all sides.⁴ It has a front, four sides and a back. One can take the material picture in one's hand, turn it over, upside down, put it on the table, pack it or transport it. It can be perceived with all senses at the same time. The material picture is subject to the same physical, biological and chemical laws as all other things in the world. It ages and degrades depending on the specific environmental conditions to which it is exposed.

In contrast, our way of talking about a pictorial representation works completely different. A pictorial representation is a form that has two very different sides.⁵ On the one hand, it is a materially produced surface, which as such can be physically damaged or destroyed. It exists only in the mode of potentiality. Material picture and pictorial representation are structurally coupled.⁶ The pictorial representation cannot exist without its material carrier. The material picture embodies the pictorial representation like the actor embodies the role. When the material picture as a physical object decays or dissolves, the pictorial representation also dissolves. Material picture and pictorial representation therefore change in co-evolutionary drift.⁷ On the other hand, it is already part of the perceptual apparatus of the observer. Pictorial representations in that second sense are colour-structured surfaces, which are only perceptible by sight and by no other sense. Without seeing there are no pictorial representations at all. The pictorial representation is the interface between the material picture and the mental image.⁸

James J. Gibsons Theory of Affordances

Gibson invented the artificial word affordance as a substitute for the concept of value, which for him was a philosophical legacy. As early as 1966 the term appeared in his book *The Senses Considered as Perceptual Systems*.⁹ For several decades Gibson worked on a satisfactory definition of affordance, changing it over and over again because he was not satisfied with it to the end.¹⁰ In the eighth chapter of his third and last book, *The Ecological Approach to Visual Perception* from 1979, James J. Gibson formulated his theory of affordance in detail.¹¹ But he is still not sure about his argument. 'Perhaps,' he writes, perhaps the surrounding optical arrangement and the layout of the surfaces of things constitute the affordance that an object offers an observer, is his thesis. Affordances are what things offer to the living being, what they 'supply' or 'allow' him. Affordances cut across the traditional dichotomy of subject and object. Environment and living being are complementary to each other.¹²

Gibson's theory of perception at the time was radical and innovative in several respects. His methodological approach was fundamentally different from the perceptual psychological methods and experiments known to date. Firstly, he assumed that observers see with two eyes and not with a single eye, and that the eyes are located in two eye sockets in which they can move back and forth in a complex way using the outer and inner eye muscles and focus on different objects in the immediate surroundings. The head, in turn, sits on a complicated neck joint made of atlas and rotator, which enables a complex movement of the eye-head system in three directions. This eye-head-neck system in turn sits on a movable upper body with two arms and a lower body with two legs, which actively moves around in its environment. The experimental psychology of perception before Gibson, on the other hand, usually assumed a monocular perception in a laboratory situation in which eye, head and body were fixed in order to eliminate them as intervening variables as far as possible. These extremely artificial laboratory conditions did not correspond at all to everyday perception situations and their experience. To my knowledge, Gibson was one of the first to make an observer actively moving around in space the basis of his theory of perception, thus defining the process of perception as a form of active action, as some philosophers and psychologists such as Alva Noë or Kevin O'Regan only understood it much later.¹³

Attempt of a Criticism

His concept of affordances cannot remain unchallenged. As radical, deviant, novel and forward-looking as his last book was, I am just as critical of his implicit ontology. With all his strength he wanted to hold on to the objectivity of the 'given' or defend it against the upcoming cognitive turn that made it clear that perception is mediated and filtered to the highest degree.¹⁴ Like Johannes Kepler, he faded out all higher, emotional, cognitive or memory functions from his theory.¹⁵ He does not deal with the question of how the visual construct that is constituted in the human visual system is further processed, connected to language and linked to expectations, memories or experiences in the higher regions of the brain.

This also applies to his theory of affordances. It is precisely this theory that has risen to new topicality in connection with the discussion triggered by Bruno Latour about the agency of things. The new developments in media ecology also make him visible as one of the possible pioneers of an ecological optic. Nevertheless, in my opinion there can be no question of the environment being perceived 'directly.' What we see are not the things themselves, but the medium that lies between the things and us.¹⁶

The fundamental problem of Gibson's theory of affordances lies in the attempt to construct a 'direct' and 'unmediated' access to reality. The objectivism implied by this concept forgets that affordances are neither 'given'¹⁷ nor 'properties' of objects, but can only be attributed to an object in a concrete use situation with an observer-actor. Affordances are the result of active attribution and appraisal, not 'objective' properties of objects that can be observed 'directly'.

Indeterminacies in the Pictorial Representation

For the transformation of material pictures into the neurobiological dynamics of an observer, the concept of blank spots (*Leerstellen*) or spots of indeterminacy (*Unbestimmtheitsstellen*) is of central importance. The Polish philosopher Roman Ingarden first invented it for the interpretation of literary texts,¹⁸ but later applied it also to music, painting, architecture and film. His argument is that, unlike a real object, in a pictorial representation not everything is completely determined. For example, in a literary text, the hairstyle or the eye colour of a person may remain unnamed in the description. In a photograph of a person from behind, the face is not recognisable. It can only be imagined.

These spots of indeterminacy can therefore only be supplemented in the imagination of the viewer. In contrast to a real person or object, which can be perceived from all sides, the unrepresented aspects of a pictorial representation remain undefined. According to Ingarden, pictorial representations are schematically constructed objects that exhibit spots of indeterminacy, which can only be concretised, supplemented and filled in during the aesthetic process.¹⁹ The blank spots in images are the crucial joints for the synthesis of perception. The observer fills the places of indeterminacy that he/she has detected with his/her own imaginations, habits, prejudices or stereotypes. In doing so, he/she goes far beyond what is visible in the pictorial representation.

Strictly speaking, this argument is the ultimate end of any belief that pictures can 'afford' or 'offer' anything to the viewer. For both the talk of pictures/images and the talk of affordances are too vague. Certainly, the optical layout of a pictorial representation is the condition of the possibility of its aesthetic experience. However, for the cognitive system of a concrete observer, the optical layout is only a cause or a trigger for perturbation and irritation. The perturbations triggered by a pictorial representation move within a framework that defines the possible space of neuronal activities and cognitive stimuli. What exactly is processed and synthesised in the visual system or later in the brain can neither be controlled nor predicted by the material picture, despite retinotopia.²⁰ On the other hand, the perturbations cannot be processed completely arbitrarily, although there is enough freedom of perceptual interpretation. The pictorial representation embodied in the image carrier is the condition that defines the range of possibilities within which the subsequent concretisations and image syntheses of the observers can operate.

If one ties these considerations back to Gibson's theory of affordances, it becomes clear that images do not 'offer' anything by themselves, and that talking of what a picture can 'afford' is a shortened, elliptical way of speaking. A material image 'offers' only that which an acting actor or observer can understand as an 'offer.' A material picture that is not perceived as an affordance by an observer remains in a shimmering space of potentiality from which it can only be concretized through a specific act of perception. Affordances are therefore not objective properties of physical things, as Gibson believed. They are relative to a particular situation in which an observer likes to perceive a particular object as an *affordance*.

Paul Graham's *a shimmer of possibility*

In the years 2004-2006, the English photographer Paul Graham, who moved to New York in 2002, travels through the United States of America. In the summer of 2004, 2005 and for most of 2006 he photographs different sites in the country without a systematic approach, rather intuitively strolling, meandering and walking around. The result is twelve photo sequences of varying size, ranging from 27 photos to one single shot, most of which are titled after the place and the respective federal state. The whole work exists in various material forms, in several photobooks, the different photo sequences and various images on the Internet.

The materiality of an image is the condition of the possibility of its aesthetic experience. In what material form is a *shimmer of possibility* present to a viewer? For most people it will be in the form of the photobook.²¹ It plays a central role in Paul Grahams work. He first develops order, arrangement and size of his photographs in his photobooks and then transfers this assembly to the photographic prints on the wall. But here too we have to ask: Which photobook are we actually talking about? There are three different editions, and therefore the physical access to the work can be very different, depending on which book you get your hands on.

The first edition, published in 2007, comprises twelve different hardback volumes bound in coloured linen in the format 24,6 x 32,2cm, which were produced and delivered in a limited edition of 1000 pieces in a white, printed cardboard box by the publishing house SteidlMACK, Göttingen (fig. 1).²² The photographer decided to divide his work into twelve different, narrow volumes. They contain neither title pages nor page numbers. The last page contains only a colophon. The title *a shimmer of possibility* is printed on the front of the linen cover in white colour and in embossed print.



Figure 1: Paul Graham, *a shimmer of possibility*, first hardcover edition, Steidl/MACK 2007.
Photo © Hans Dieter Huber 2020

In May 2009 *a shimmer of possibility* was published once again in a softcover paperback edition in a minimally smaller format of 24.2 x 31.8 cm and with 367 pages as a whole book (fig. 2). In contrast to the first edition, the photographs in this edition are overprinted with a light clear varnish to make the colours appear deeper and more saturated. The paper is thinner and glossier.²³ In 2018 the publishing house MACK Books London decided to reprint the twelve volumes. In the reprint edition, all volumes are bound in the same light blue-violet linen (fig. 3). The title is printed in the colours of the first edition. These are the three primary, material manifestations of *a shimmer of possibility*. Quantitatively speaking, most people will only have access to the paperback edition and no access to the 12 hardback volumes either of the first or the third edition or the original photographs.

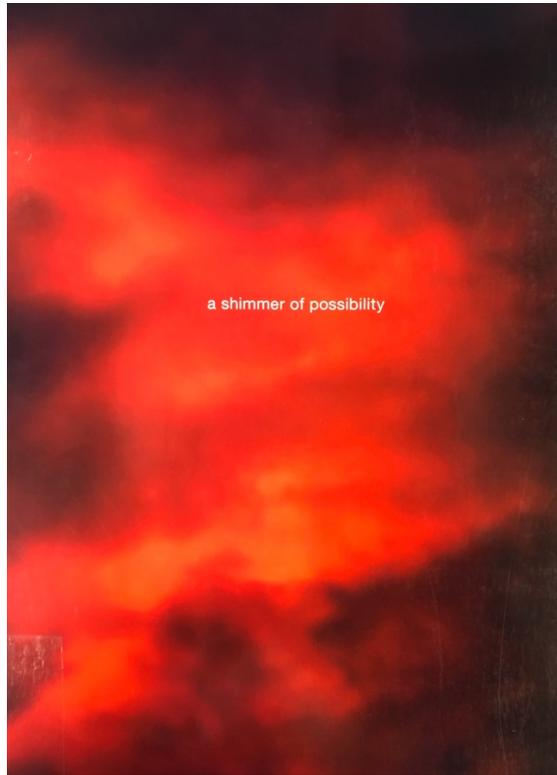


Figure 2: Paul Graham, *a shimmer of possibility*, softcover edition, SteidlMACK, 2009. Photo © Hans Dieter Huber 2020



Figure 3: Paul Graham, *a shimmer of possibility*, reprint 2018. Courtesy of MACK Books, London.

The Affordance of a Photobook

What form of aesthetic experience do the photobooks 'afford' the user? In the first edition there is no definitive order of the individual volumes. The viewer can take out any one of the volumes, open a random page and from there turn either forward or backward. Which of the differently coloured volumes a particular viewer will pick up first cannot be predicted from the design of the respective photobook. Therefore, it cannot be said which affordances such a hardcover volume will provide. The photobooks are apprehended highly selective. The constitution of the aesthetic object through perception is fragmentary, random and, - seen from the photobook 'itself'-, unpredictable. Nevertheless, the books offer the viewer something to see. But what this is can only be recognised through the process of seeing itself and through no other sense.²⁴

If an observer takes a certain volume of the first edition into his hands, the entire photographic project enters a space of possibilities that allows a different temporal sequencing of the aesthetic experience and thus produces a genuine constitution of the aesthetic object. The aesthetic experience of the photobook of a *shimmer of possibility* is embedded into a sequence of temporal horizons in which memory and expectations continuously merge.²⁵

In the softcover paperback edition, however, this order has been established once and for all. The viewer who leafs through this book is fixed in the order of his aesthetic experience. It is imposed on him by the dictatorship of binding, which establishes a clear and irreversible order of the twelve photographic sequences. However, if he uses the reprint edition of 2018 (fig. 3), all twelve volumes of the edition look the same for the time being. Even the linen cover signals that all sequences are equally important and significant, that there is no beginning, no end and no specific order of the aesthetic experience. A specific aesthetic experience of an observer and hence the affordance of the book is only realised through the actual, successive aesthetic action of leafing and looking.

Due to the fact that there are three different material manifestations of the photobook, one can conclude that a *shimmer of possibility* offers its viewers not just one, but at least three different spaces of possibilities for their aesthetic experiences, which can never be fully exhausted.²⁶ An actual aesthetic experience is always the concrete and specific realisation of an affordance that becomes actual within a chosen space of possibilities.

The Materiality of the Photographs

But there is another, more significant manifestation of this work, namely the presentation of framed photo sequences in an exhibition. Which materialities and affordances does a viewer encounter when confronted with such a framed, enlarged, glazed and mounted version of the sequence on the wall?

The ten panels consist of so called *colour coupler prints*, also known as C-prints.²⁷ They are framed flush with an angular white frame and with a spacer strip at a distance of about 1 centimetre (fig. 4). The framing was carried out by the company John Jones, London on 5 September 2007 using "museum-standard framing," in which the glass is low-reflective and filtering the ultraviolet light. The back of the frame is fitted with a diagonal, bevelled, four-sided hanging strip, which is connected to the white frame strip. In addition, the joint was sealed dust- and airtight with a brown, 12 mm wide, water-soluble adhesive tape. Four spacers made of transparent plastic as well as two hanging loops, which are attached to the sides, complete the back of the frame (fig. 5).



Figure 4: Paul Graham, *a shimmer of possibility* (Austin, Texas 2006) detail of frame. Photo © Hans Dieter Huber 2020



Figure 5: Paul Graham, *a shimmer of possibility* (Austin, Texas 2006)
detail of backside of plate 5
Photo © Hans Dieter Huber 2020

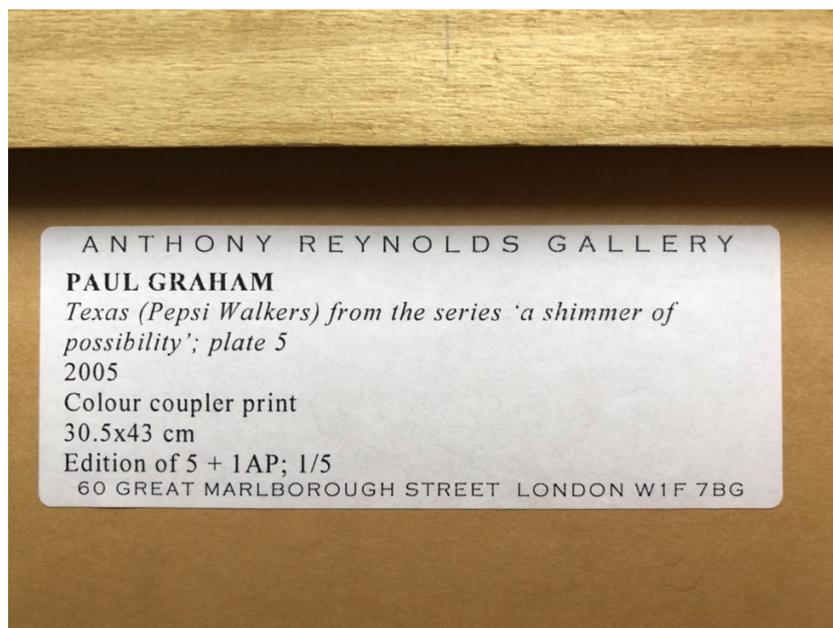


Figure 6: Sticker of Anthony Reynolds Gallery, London, 2007.
Photo © Hans Dieter Huber 2020



Figure 7 and 8: Sticker of Sotheby's, London, 2017.
Photo © Hans Dieter Huber 2020

Furthermore, it contains four stickers with valuable information. The most important is from Anthony Reynolds Gallery, 60 Great Marlborough Street, London. It contains the artist's name, the title of the work *Texas Pepsi Walkers* from the series *a shimmer of possibility; plate 5"*, which in this case differs significantly from the title and the year in the photobooks (fig. 6). It dates the sequence back to the year 2005, although the photobook indicates 2006 as the year of creation. Furthermore, the sticker contains information about the size of the photograph, the number of the plate, the size of the edition (Edition of 5 + 1 artist print) and the number of the edition (1/5). Then there are two stickers from Sotheby's London, where the work was auctioned in 2017, containing the lot number 216, the number of sold pieces (pcs 10) (fig. 7) and the name of the photographer, Shot-Donald (fig. 8).

Photographic Sequences in Exhibitions

The American documentary photographer Allan Sekula in an interview with Fritz Gierstberg in 1998 made a remarkable distinction between a series and a sequence.²⁸ With a series, you can see how the whole functions after only 2-3 examples. You can leave out single objects without the character of the series suffering or being destroyed. With a photographic sequence, however, this is different. It needs special markings of the beginning and the end. A sequence is always a whole. The complete work of a *shimmer of possibility* consists in a series of twelve different photographic sequences. The complete series never needs to be shown in its entirety. However, the individual photographic sequence must always be shown in full.

The affordances an artwork offers can be quite different depending on the situation of the encounter.²⁹ When a viewer enters a public exhibition space, the aspect of aesthetic education is the focus of interest. But when a viewer enters a private gallery, the situation is different. Here it is a matter of purchase. The question of how expensive such a photographic sequence is and whether it is still available for purchase at all is standing in the room. *A shimmer of possibility* was first exhibited at Anthony Reynolds Gallery, London from September 13 to October 14, 2007. Austin, Texas 2006 was installed over a corner (fig. 9). The first five photographs were hanging on the left wall and the second five photographs on the right wall. The hanging was done by the artist himself.



Figure 9: Installation view of Paul Graham Austin, Texas 2006 from a *shimmer of possibility* at Anthony Reynolds Gallery, London 2007. Photo: Courtesy of the artist and Anthony Reynolds Gallery, London.

One and the same photographic sequence affords something completely different in a public exhibition space than in a private gallery. In a museum, viewing the work educates the viewer aesthetically. In 2012, the photographic sequence Austin, Texas was shown at The Douglas Hyde Gallery, Dublin (fig. 10). The arrangement of the photographs is slightly different. The pictures are hanging on a single wall and the viewer can approach them orthogonally. Once again, the hanging was done by the artist himself.



Figure 10: Installation view of Paul Graham, Austin, Texas 2006 at The Douglas Hyde Gallery, Dublin 2012.
Photo: Courtesy of the artist and Anthony Reynolds Gallery, London.

In a gallery or auction house, the artwork affords a price at which it can be purchased. A gallery or auction house is acting like a broker or agent who offers a work of art he or she has suggested as relevant for an audience. However, demand must be added to supply. The gallery cannot force this. One edition of the photographic sequence of Austin, Texas 2006 was sold at Sothebys, London on October 6, 2017. The pictures hung in two rows, an assembly which Graham often uses, also for other sequences of a *shimmer of possibility* (fig. 11).



Figure 11: Installation view of Paul Graham Austin, Texas 2006 at Sothebys, London 2017.
Photo © Sotheby's 2017.

If the photographic work is already in a private collection, on the other hand, the situation is quite different. The work is located in an everyday environment. In contrast to the museum's presentation, which still refers to the ideal of the white cube,³⁰ it is integrated into the daily life of the collector's family. The work 'lives' with the collector. Shelves, cupboards, tables, chairs, lamps, vases, objects are assembled in the house, i.e. things that, according to the ideology of the white cube, only disturb and irritate the purely aesthetic experience.

Size and Affordance

When we talk about the photographic sequence *Austin, Texas 2006*, something must also be said about the different sizes of the photographs. Size is a component of the material body of the photograph in contrast to the scale of the pictorial representation, which is mainly defined by the camera setting. The photo sequence *Austin, Texas 2006* has four different sizes. The photographs number 1, number 5, number 7 and number 10 have the smallest size of 30.5 × 43 cm. Numbers 2, 4, 6 and 9 are slightly larger, namely 35.5 × 49.5 cm. Both sizes appear four times in the sequence. A third picture, measuring 53.5 × 56 cm, is number 3, which shows a black woman and a black man waiting at a waste bin. The largest picture is photograph number 8, 63.5 × 89 cm, which shows two children playing in a garden.

Small pictures can be controlled more strongly by the viewer's gaze than large pictures, which have a slightly immersive effect and draw the observer deeper into the depicted space. While small pictures tend to have an abstracting and distancing effect, the opposite is true for larger pictures. They seem more emotional and engaging. The size of a picture therefore always defines the way it addresses the viewer in the dimensions of distance and closeness.³¹

The size of a photograph functions as a condition of the possibility of its aesthetic experience. The viewer places himself in relation to the physical objects on the wall by means of his own body and its own bodily size. He usually approaches smaller pictures at a closer distance than larger ones. Large pictures cannot be seen all in once at a close distance from the picture surface. The temporary arrangement of the photographic sequences rhythms the aesthetic experience not only in a horizontal and vertical choreography but also with regard to a change in the distance of the viewer from the individual picture. The different sizes of the pictures allow a rhythmic distancing and approaching.³²

The Pictorial Narration

Four factors determine the visual narrative.

Firstly. Theoretically spoken, all ten photographs could have the same size. But they do not. The fact that the ten photographs set by their order is transformed into a rhythm by the different size. The rhythm corresponds to a different temporal extension in aesthetic perception.

Secondly. In theory, all ten photographs could have been hung at the same eye level. But Paul Graham determined this differently. The ten photographs are hung at different heights on the wall. This interplay with the viewer's eye point gives the rhythm an additional melody. The higher hanging pictures seem lighter and higher in tone than the lower hanging ones, which sound darker and more bassy. In between, with the two large single pictures two 'solos' are inserted, interrupting the melody and rhythm of the sequence and extending it into a secondary narrative.³³

Thirdly. The optimal viewing distance for an observer resulting from the need to adopt an optimal viewing angle changes from photograph to photograph. This creates an additional third dimension to the horizontal left to right sequencing and its vertical variation. It results in a dynamic perceptual action in distancing and approaching from the wall. Paul Graham thus brings the viewer into an active, physical four dimensional dynamic of movement through the variation of size, eye point and distance.

Fourthly. The attitude with which the photographer photographs the two protagonists and the edit play a central role in the pictorial narration. In the first picture it is a long shot. In the second picture the photographer moves closer to his protagonists and photographs them in a so called american shot.³⁴ Then follows the first solo picture with a central composition that suggests calm and duration. This is followed by a head and shoulder close-up shot taken from a very close distance behind the couple, which almost represents an infringement of their intimate space. The woman's left shoulder is cut by the frame. The photographic view is concentrated on the man, his left arm and the two packs of 12 Pepsi cans. (no. 4).

Then follows the centre of the photographic sequence with photographs 5 and 6, where it becomes clear that the photographer is increasingly concentrating on the man and looking at him more closely than before. In photograph 5 the view widens again towards a medium shot with normal focal length. The couple is photographed from a slightly elevated camera position at the height of the woman's hairline, so that parts of the lawn and pavement become visible. In photograph number 6 the man is then isolated from his female companion and placed in relation to his surroundings, a cemetery. The woman has completely disappeared from the picture. The man is slightly out of focus. Instead, the camera

focuses on the graves of the cemetery. The man is again shot in a mid shot. But this time he is photographed from a greater distance, i.e. with a smaller focal length. Probably Graham used a zoom lens. But this time the eye point is lower than in the photography before. Graham must have held the camera a little lower when taking the shot. Already in the act of photographing Paul Graham varies his camera shots through different focal lengths, eye points and depth of field. In photography number 7, there is suddenly a great distance between the viewer and the protagonist. The photographer stays behind the couple. He takes the picture of the people now walking on a left boardwalk from a distance of about 10 metres.

The largest picture of the series shows a yard with two playing children. If you look closely you can see that the colour of the children's clothes echoes the clothes of the white couple. The boy wears a red t-shirt with white sleeves and a black jeans, while the girl wears a white blouse and a turquoise skirt. The penultimate photograph shows the couple crossing a street in a residential area without any boardwalk. In the last photograph they disappear on the horizon. The photographer stays behind and does not follow them any further.

The Affordances of the Pictorial Narration

What a photographic sequence affords a viewer for his aesthetic experience is determined on the one hand by the depicted scene, its size and scale and the spatial arrangement of the single photograph within the sequence. On the other hand, these affordances frame a space of possibilities which is only transferred to actuality when it is translated by an active viewer into a coherent emotional-cognitive narrative. If one looks at the blank spots that exist in and between these images, it becomes clear that these spots of indeterminacy are the decisive interfaces of the whole photographic sequence, which transform the affordances provided by the physical object into a specific emotional-cognitive dynamic of the viewer.

What can be described as the affordance of a photographic sequence can in no way be an objective or absolute property of the physical pictures. What a photograph offers is relative both to an observer and to place, time and social milieu in which the encounter takes place. The question of affordances is thus of double ontological relativity. From the point of view of the respective object, therefore, only a range of possibilities can be determined, within which a possible affordance only functions if it is accepted by an observer or actor.

Summary

The analysis of Paul Graham's *a shimmer of possibility* has produced several findings. Firstly: Our talk of pictures and images is ambiguous. With the term *picture* I mean a physical, material object that is determined on all sides. The pictorial representation on the surface of a material carrier, on the other hand, is only partially determined. It is a schematic structure that can only be apprehended with the sense of sight. Secondly: The material picture embodies the pictorial representation and is the condition of the possibility of its aesthetic experience. Thirdly: The photographic series of Paul Graham's *a shimmer of possibility* exists in different materialities, namely as photobooks and as photographic colour prints on the wall. It spans a space of aesthetic potentiality, which is only actualised through the specific concretisations of the viewer. Fourthly: Due to the numerous spots of indeterminacy, the viewer goes far beyond what is visibly represented in a way that cannot be verified or controlled from the material pictorial object. The observer completes these blank spots of representation with his own imagination. Fifthly: The fragmentary nature of a pictorial representation is transformed into a complete, coherent pictorial narrative by the viewer's cognitive system. The spatial, temporal and social discontinuities that exist between the individual pictorial representations are translated into a spatially, temporally and socially continuous and full pictorial narrative. It is the autonomous, auto poetic activity of the actor that constructs a visual narration in his mind that, seen from the environment, cannot be foreseen, controlled or forced. Sixthly: The theory of affordances, as developed by James J. Gibson, must necessarily be supplemented by a theory of actual genesis and synthesis of perception. Only the two together describe the dialectical achievement of understanding images.

Author Biography

Hans-Dieter Huber, artist, filmmaker, scientist. 1997 to 1999 professor HGB Leipzig; 1999-2019 Professor of Contemporary Art History, Aesthetics and Art Theory at the State Academy of Fine Arts Stuttgart. 2006-2011 Head of the International Master Program "Conservation of New Media and Digital Information" at the State Academy of Fine Arts Stuttgart. 2007 Senior Fellow at the International Research Center for Cultural Studies in Vienna. 2006-2009 Professor at the Post Graduate Program "Image, Body, Medium" at HfG Karlsruhe. Since 2013 Member of the Scientific Advisory Board of the International Institute for Subjective Experience and Research (ISER) at the MSH Medical School Hamburg. Since 2015 member of the scientific board of Society for Interdisciplinary Image Science (GIB). Since 2016 Deputy Chairman of the Württembergischer Kunstverein Stuttgart. From 2017-2020 Member of the Board of Trustees of the Adolf Hölzel Foundation, Stuttgart.
Email: hdhuber@me.com

My thanks go to Dr. Bettina Lockemann, Cologne, for a critical reading and discussion of the first version of this text and her references to further literature on the photobook.

Notes

¹ For a discussion of the image/picture difference see Mitchell 2009, 323-324.

² Huber 2010.

³ Gibson 1979, 65-92, esp. 69.

⁴ Ingarden, 139-143.

⁵ "We take as given the idea of distinction and the idea of indication, and that we cannot make an indication without drawing a distinction. We take, therefore, the form of distinction for the form. [...] That is to say, a distinction is drawn by arranging a boundary with separate sides [...]. Once a distinction is drawn, the spaces, states, or contents on each side of the boundary, being distinct, can be indicated. There can be no distinction without motive, and there can be no motive unless contents are seen to differ in value." Spencer-Brown 1979, 1.

⁶ On the concept of drift and its evolutionary function, see Maturana 1988, 833: "The dynamic structural relations of a unit with its medium, through which this unit maintains its identity (...) I call *>structural coupling<* (or *>structural adaptation<*). This coupling becomes visible through the everyday practice of the observer. For the existence of any unit, the preservation of its identity and the preservation of its adaptation are thus constitutive conditions. As constitutive conditions for the existence of a unit the preservation of identity and the preservation of adaptation are interdependent conditions, so that with the loss of one condition the other condition is also always lost and the unit no longer exists. When this happens, a complex unity dissolves while a simple unity disappears." [own translation]

⁷ Maturana 1990, 73.

⁸ Husserl 1984, 437: "The painting is only a picture for a picture-constituting consciousness, which, through its imaginative apperception (here, therefore, founded in perception), gives a primary and perceptually appearing object the 'validity' or 'meaning' of a picture. [own translation]."

⁹ Gibson 1966, 285: „When the constant properties of constant objects are perceived (the shape, size, color, texture, composition, motion, animation, and position relative to other objects), the observer can go on to detect their affordances. I have coined this word as a substitute for values, a term which carries an old burden of philosophical meaning. I mean simply what things furnish, for good or ill. What they afford the observer, after all, depends on the properties.“

¹⁰ See inter alia Reed/Jones 1982, ch.4.9, esp. 404; Reed 1988, 54f., 293f.

¹¹ Gibson 1979, 127: "I have described the environment as the surfaces that separate substances from the medium in which the animals live. But I have also described what the environment *affords* animals, mentioning the terrain, shelters, water, fire, objects, tools, other animals, and human displays. How do we go from surfaces to affordances? [...] Perhaps the composition and layout of surfaces *constitute* what they afford. If so, to perceive them is to perceive what they afford. This is a radical hypothesis, for it implies that the 'values' and 'meanings' of things in the environment can be directly perceived".

¹² Gibson 1979, 127.

¹³ Noë/O'Regan 2002.

¹⁴ Neisser 1967, Posner 1974.

¹⁵ Kepler-van Dyck/Caspar 1937, Vol.2, 151. For a more detailed discussion see Huber 2007, 185.

¹⁶ Aristoteles-ed. Barnes, 1984, Vol. 1, 667 (419a12-21) and 691 (434b 25-29): "The following makes the necessity of a medium clear. If what has colour is placed in immediate contact with the eye, it cannot be seen. Colour sets in movement what is transparent, e. g. the air, and that, extending continuously from the object of the organ, sets the latter in movement. (...) Seeing is due to an affection or change of what has the perceptive faculty, and it cannot be affected by the seen colour itself; it remains that it must be affected by what comes between. Hence it is indispensable that there be something in between - if there were nothing, so far from seeing with greater distinctness, we should see nothing at all. [...] if they are to survive, they must perceive not only by immediate contact but also at a distance from the object. This will be possible if they can perceive through a medium, the medium being affected and moved by the perceptible object, and the animal by the medium. "For a broader discussion see Huber 2007, 125. See also Spencer-Brown 1979, xxv: "... the work of Einstein, Schrödinger, and others seems to have led to the realization of an ultimate boundary of physical knowledge in the form of the media through which we perceive it."

¹⁷ Sellars 1963.

¹⁸ Ingarden 1973, 249, 251f.

¹⁹ The extent of this autonomous neuronal activity in relation to the perceptual perturbation can be made clear by a comparison. The output of a single ganglion cell in the retina can cause the activity of far more than thousand cortical neurons in the occipital, parietal and temporal lobes of the brain. This cortical activity, which is a thousand times greater than that of retinal irritation, leads to a complete and uniform perception of the visual environment in a way that is as yet unexplained. See Bear/Connors/Paradiso 2017, 331-367.

²⁰ Bear/Connors/Paradiso 2017, 342-343.

²¹ Meanwhile there exists a vast literature on the photobook which I follow only in parts and with reservations. See among others Parr/Badger 2004-2014, Di Bello/Zamir 2012, Photography at Valand Academy, University of Gothenburg/ Hasselblad Foundation/Art and Theory 2013, Graf 2013, Siegel 2016, Siegel 2019.

²² It was out of print within 10 weeks of its publication and is today considered a paradigmatic milestone of the photobook, redefining what a photobook can achieve.

²³ This second edition is also completely out of print and can only be purchased antiquarian at a much more expensive price. In November 2011 the book received the Paris Photo-Aperture Foundation Photo Book Award in Paris for the most important photobook of the last 15 years.

²⁴ Huber 2004, 163-167.

²⁵ Husserl 1980, 399: "If we now relate the talk about perception to the differences in the circumstances in which time objects appear, then the opposite of perception is the primary memory and primary expectation (retention and protection) that occur here, whereby perception and non-perception continually merge into one another. "[own translation]

²⁶ Sartre 1994, 11-13.

²⁷ Later editions of the series were executed in ink-jet printing. (communicated by Nadine Lockyer from Anthony Reynolds Gallery in an eMail to the author dated 17.12.2020: "The entire series of shimmer was not printed in one go and Paul moved to printing pigment ink prints around this time which is why the very first prints are colour coupler but then pigment ink about a year or so later."

²⁸ "The photographic sequence is an alternative to the dominant institutional model for organizing photograph in re-sortable groups: the curatorial and bureaucratic model of the archive and the series. Sequences can in fact contain series, can even be organized from the interweaving of serial elements, but the opposite is not the case. Series introduce a metronomic regularity to the parade of photographs, allowing individual images to be bought and sold with no compunction about loss of complexity of meaning. This is in fact one pleasure of the serious. Sequential organization, and the parallel construction of textual elements, allow a photographic work to function as a novel or film might with a higher more complex level of formal unity. However, the openness of the sequential ensemble constitutes a crucial difference with cinema. There is no unilinear dictatorship of the projector. Thus it is easy to mistake the sequence for a series; for example, beginnings and endings require special marking if a sequence is to be recognized as such." Gierstberg 1998, 5f.

²⁹ For a more elaborated view on the role of situations for aesthetic experiences see Huber 2019.

³⁰ O'Doherty 1986.

³¹ In the late 19th century, Hermann von Helmholtz already referred to seeing with two eyes and the resulting differences between the perception of small and large paintings in his text *Optisches über Malerei*: "Large paintings therefore give a less disturbed view of their subject than small ones, while the impression on the single resting, unmoving eye of a small, close painting could be exactly the same as that of a large, distant one. Only in the case of the near one, the reality that it is a flat surface constantly imposes itself on our perception much more powerfully and clearly." Helmholtz 1884, 102. [own translation]

With small pictures and from a close distance, it is easier to see the pictorial surface and the medium and it is more difficult to obtain a spatial imagination of the represented scene. With large pictures it is the other way round. Here it is easier to perceive the image space and more difficult to observe the pictorial surface and the medium. Paul Graham plays with this distinction in a very conscious way. He lets the viewer's eyes jump back and forth between the picture surface and the image space. For an extended theoretical and historical discussion about the differences between the perception of small and big pictures see Huber 2004, ch. 7.

³² In the Renaissance, in connection with the edge distortions of perspective depiction, there was a broad discussion about the maximum angle of vision at which an image should be seen. This angle was determined between 45° and 60°. For the role of life size in pictures and an optimum viewing angle of 60°, see a more detailed discussion in Huber 2005, 229.

³³ Badger has also recognised the usefulness of musical metaphors for the interpretation of photobooks or photographic sequences: "In other words, when putting together a photographic sequence it is useful to think of musical qualities like point and counterpoint, harmony and contrast, exposition and repeat. There should be an ebb and flow to a photobook narrative, it should get 'softer' here, 'louder' there, 'quicken up' in visual terms, or slow down, and it should build naturally, if not to a climax, at least to a resolution. When he was referring to Paul Graham's photographic 'short stories,' or 'filmic haikus' in his book *a shimmer of possibility*, John Gossage emphasized just how necessary it was to have 'stopper' pictures, like climactic notes or deliberate discords. 'Stoppers' make us pause, they are subtle devices to hook us, alluring images that make us pause and ponder. And, as Gossage says, they are vital in making 'the book more complex, not just a group of sequences.'" Badger 2013, 19.

³⁴ For the american shot see Hickethier 2012.

Bibliography

- Aristoteles. *The Complete Works of Aristotle*. The Revised Oxford Translation. Ed. by Jonathan Barnes. Vol. 1–2. Princeton 1984.
- Badger, Gerry. "It's All Fiction. Narrative and the Photobook." In: Photography at Valand Academy, University of Gothenburg/ Hasselblad Foundation/Art and Theory (eds.): *Imprint. Visual Narratives in Books and Beyond*. Stockholm: 2013, 15-47.
- Bear, Mark F. Connors, Barry W., Paradiso, Michael A., *Neuroscience - Exploring the Brain*. 4th edition. Philadelphia [e.a.]: Wolters Kluwer 2016.
- DiBello, Patrizia/Zamir, Shamoon (eds.). *The Photobook. From Talbot to Ruscha and Beyond*. New York, London: I.B. Tauris 2012.
- Gibson, James J. *The Perception of the Visual World*. Boston: Houghton Mifflin Company 1950.
- . *The Senses Considered as Perceptual Systems*. Westport, Connecticut: Greenwood Press 1966.
- . *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin Company 1979.
- Gierstberg, Frits. "Dismal Science. An Interview with Allan Sekula." In: Sekula, Allan, *Dead Letter Office*. Ext. cat. Palais des Beaux-Arts/ Palais voor Schone Kunsten Brussels 31 October 1998 - 3 January 1999, 1-9.
- Graf, Catharina. *Der fotografische Essay. Ein Hybrid aus Bild, Text und Film*, München: Wilhelm Fink 2013.
- Hickethier, Knut. *Film- und Fernsehanalyse*. 5., aktualisierte und erweiterte Auflage. Stuttgart [u.a.]: Metzler 2012.
- Huber, Hans Dieter. *Bild Beobachter Milieu. Entwurf einer allgemeinen Bildwissenschaft*. Ostfildern-Ruit: Hatje Cantz Verlag 2004.
- . *Paolo Veronese. Kunst als soziales System*. München: Wilhelm Fink Verlag 2005.
- . *Kunst als soziale Konstruktion*. München: Wilhelm Fink Verlag 2007.
- . "Phantasie als Schnittstelle zwischen Bild und Sprache". In: Michael Ganß / Peter Sinapius / Peer de Smit (Hg.): *Ich seh dich so gern sprechen. Sprache im Bezugfeld von Praxis und Dokumentation künstlerischer Therapien*. (= Wissenschaftliche Grundlagen der Kunsttherapie; Vol. 2). Frankfurt am Main: Peter Lang Verlag 2008, 61–70.
- . "Schnittstelle Imagination." In: Gabriele Lieber (edg.), *Lehren und Lernen mit Bildern. Ein Handbuch zur Bilddidaktik*. Baltmannsweiler: Schneider Verlag Hohengehren GmbH 2008, 54–59.
- . *Die Phantasie als Schnittstelle*. Berlin: epubli 2010.
- . "Towards a Theory of the Aesthetic Situation." In: *Art Style, Art & Culture International Magazine*, Vol. 3, Issue 3, September 2019, 27-36.
- Husserl, Edmund. *Vorlesungen zur Phänomenologie des inneren Zeitbewußtseins*. Ed. By Martin Heidegger. 2nd edition. Tübingen: Max Niemeyer Verlag 1980.
- . *Logische Untersuchungen*. 2. Band, 1. Teil: *Untersuchungen zur Phänomenologie und Theorie der Erkenntnis*. Hg. von Ursula Panzer. (= Husserliana, Bd. XIX/1) Den Haag: Nijhoff 1984.
- Roman Ingarden. *The Literary Work of Art: an Investigation on the Borderlines of Ontology, Logic, and Theory of Literature*. Translated by G. G. Grabowicz. Evanston: Northwestern University Press, 1973.

- . *Ontology of the Work of Art: The Musical Work, The Picture, The Architectural Work, The Film*. Translation by Raymond Meyer and John T. Goldthwait. Ohio: Ohio University Press 1989.
- Kepler, Johannes, *Gesammelte Werke*. 18 Bände. ed. by Walther van Dyck and Max Caspar. München 1937ff. Bd. 2: *Ad vitellionem paralipomena, quibus astronomiae pars optica traditur* [1604], ed. Franz Hammer.
- Maturana, Humberto R. *Elemente einer Ontologie des Beobachtens*. In: Hans Ulrich Gumbrecht / K. Ludwig Pfeiffer (Hg.): *Materialität der Kommunikation*. Frankfurt am Main 1988, 830 – 845
- . *The Biological Foundations of Self Consciousness and the Physical Domain of Existence*. In: Luhmann, Niklas / Maturana, Umberto / Namiki, Mikio / Redder, Volker / Varela, Francisco: *Beobachter. Konvergenz der Erkenntnistheorien?* München 1990, 47 – 117.
- Mitchell, W. J. T. "Vier Grundbegriffe der Bildwissenschaft." In: Sachs-Hombach, Klaus (ed.), *Bildtheorien. Anthropologische und kulturelle Grundlagen des Visualistic Turn*. Frankfurt am Main: Suhrkamp 2009, 319-327.
- Neisser, Ulric, *Cognitive Psychology*. New York: Meredith Publishing Company 1967.
- . *Cognition and Reality. Principles and Implications of cognitive Psychology*. San Francisco: W.H. Freeman and Company 1976.
- Noë, Alva / O'Regan, Kevin. "On the Brain-Basis of Visual Consciousness: A Sensorimotor Account." In: Noë, Alva / Thompson, Evan (ed.), *Vision and Mind. Selected Readings in the Philosophy of Perception*. Cambridge, Mass., London: MIT Press 2002, 567–598.
- O'Doherty, Brian. *Inside the White Cube. The Ideology of the Gallery Space*. Santa Monica, San Francisco: The Lapis Press 1986.
- Parr, Martin/Badger, Gerry (eds.). *The Photobook. A History*, Vol. 1-3, London e.a.: Phaidon 2004-2014.
- Photography at Valand Academy, University of Gothenburg/ Hasselblad Foundation/Art and Theory (eds.): *Imprint. Visual Narratives in Books and Beyond*. Stockholm: 2013.
- Posner, Michel I., *Cognition. An Introduction*. Glenview, Illinois: Scott, Foresman and Company 1974.
- Reed, Edward/Jones, Rebecca (eds.). *Reasons For Realism. Selected Essays of James J. Gibson*. Hillsdale, New Jersey: Lawrence Erlbaum Associates 1982.
- Reed, Edward. *James J. Gibson and the Psychology of Perception*. New Haven, London: Yale University Press 1988.
- Sartre, Jean-Paul. *Das Sein und das Nichts. Versuch einer phänomenologischen Ontologie*. Gesammelte Werke. Philosophische Schriften I. Reinbek: Rowohlt 1994.
- Sellars, Wilfrid. "Empiricism and the Philosophy of Mind." In: Sellars, Wilfried: *Science, Perception and Reality*. London: Routledge & Kegan Paul 1963, 127–195.
- Siegel, Steffen. "Drucksachen. Vorbemerkungen zu einer künftigen Fotobuch-Forschung." In: Dogramaci, Burcu e.a. (eds.): *Gedruckt und erblättert. Das Fotobuch als Medium ästhetischer Artikulation seit den 1940er Jahren*. Köln: Verlag der Buchhandlung Walther König 2016, 22-33.
- . *Fotogeschichte aus dem Geist des Fotobuches*. Göttingen: Wallstein Verlag 2019.
- Spencer-Brown, George. *Laws of Form*. New York. E.P. Dutton 1979.