Horizontal Against Vertical

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Photographs, as Vilém Flusser argued repeatedly, are the outcome of pre-programmed apparatuses: camera designs, industrial complexes and the economies which drive them. Flusser's elaborate view is contrasted by Aïm Deüelle-Lüski's hand-made multi-pinhole cameras and particularly his 'horizontal' cameras, wherein the negative (and later negatives) are placed horizontally within the camera. Deüelle Lüski's oeuvre is thus a unique problematisation of all other forms of photography that are revealed as solutions for only a single problem: how to produce referential pictures.

If we consider an unembellished history of photography, then we gather that cameras have been invented in order to function automatically and independently of human involvement. In that sense, the camera may be the first true apparatus. And if this is the intention with which they have been created, then it has been hugely successful. While the human components of photography are progressively being side-lined, the programs of the photographic apparatuses, whether seen as combination games or not, are becoming increasingly rich in desirable elements. They go far beyond our human ability to control them or even understand what they do, let alone how. It is precisely their tendency to conceal themselves automatically, to become opaque while their artefacts seem to become ever more transparent, that needs to be criticized. What is essential is that programs always become autonomous. Vilém Flusser's philosophy uses photography to argue that apparatuses, whatever they are, function independently of their programmer's intentions and increasingly more so. This is why Flusser, wherever he looked, could only see apparatuses whose initial purpose 'recedes farther beyond the horizon' (2011, 208).

Many human cultures can be defined by their methods of elaboration and preservation of information. Nevertheless, most procedures for elaborating and preserving information have many tedious aspects. This is arguably one simple reason why apparatuses have been invented: to process information faster and to preserve it more efficiently than humans can. This is also why creativity today rarely depends on the ability to actually fabricate physical objects. This may also mean, however, that creativity can no longer be measured exclusively in terms of the ability to fashion cultural objects intentionally. Instead, it should be understood as the ability to program apparatuses, to direct them to culturally desired models and then to end their independence when these models have been produced.

1. The Photographic Apparatus

Vilém Flusser's philosophy of photography is comprised of four key terms: image, apparatus, program and information. These enable the following definition of a photograph: 'an image created and distributed by photographic apparatus according to a program, an image whose ostensible function is to inform' (Flusser 2000, 76). Importantly, Flusser's definition of image can be understood as corresponding with Walter Benjamin's famous 'Work of Art' essay (Benjamin, 2008) and his definition of information can be understood as drawing according to Claude E. Shannon's (1948) mathematical theory of communication. I will not delve into these two terms here. I will instead focus on Flusser's definitions of apparatus and program and utilize these in presenting Aïm Deüelle Lüski's concept of horizontal photography.
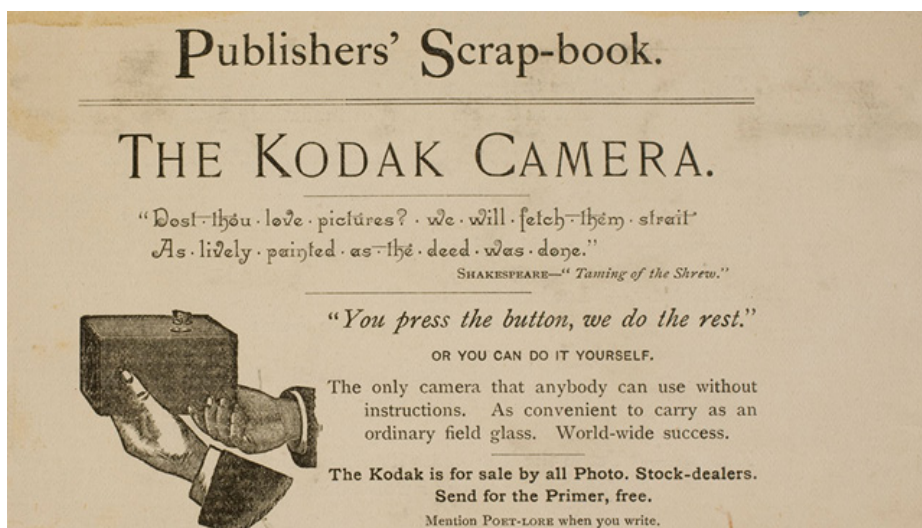
The photographic apparatus, although based upon scientific principles and technical complexities, is easy to handle, argues Flusser remarkably.

It is, nonetheless, not an apparatus on which you merely click a button, as Kodak's nineteenth-century pitch would have us believe ('You Press the Button, We Do the Rest' was Kodak's advertising slogan, coined by George Eastman in 1888) (fig. 1). Rather, photography in Flusser's construal is functionally simple yet structurally complex.[1,2] Instead of accepting Kodak's 'fire-and-forget' description, Flusser suggests a concept of dynamic interaction between the apparatus and its user. Pondering the meaning of the term apparatus through the Latin verb apparare (to prepare), he conceives a photography that is far more than a technological tool that naturally, mechanically or automatically produces an image. Rather, it is a complex system that must be prepared in order for an image to be made. But what does 'prepare' mean in this context? Contrary to Joel Snyder (1975) and Neil Walsh Allen's (1980) advocacy of the photographer's artful preparation of the image – his or her choice of exposure variables, lens, film stock (or colour profile) etc., for Flusser the photographic image is prepared by the apparatus, and not the photographer. It is always already prepared, and the photographer's choices, in fact his or her liberty, are limited to engagement with that which has been pre-prepared.

1. In this regard, it is the opposite of the game of chess, which is structurally simple and functionally complex (that is, even though its structure and rules are relatively simple, every game embodies infinite possibilities). (Flusser 2013, 132).

2. A similar and intriguing distinction is made by Andy Clark when he refers to "transparent" and "opaque" technologies. (Clark 2009).

Fig. 1. Eastman Kodak Advertisement, c.1889.

Flusser then argues that an apparatus is a machine that calculates probabilities in order to elaborate information: 'humans used to do the same thing, and they called it "creation". They used to elaborate improbable situations empirically, and they used to call their empiricism by noble terms such as "intuition". Apparatus do this better because they use information theories […]. However, if apparatus can create information in the place of humankind, what about human commitment? What about values?' (Flusser, 1980, 330). Put differently, photography, in Flusser's philosophy, is designated as the prototype for all technical apparatuses taken together.

Conceivably, most apparatuses are hard objects. A camera is usually constructed of metal, glass, plastic, etc., but it is not its hardness that makes it capable of elaborating information (similarly, it is not the cardboard of a

chessboard or the wood of the individual chess-pieces that make a chess game possible). Rather, it is the rules of the game that allow play, interaction and consequently elaboration of information: 'What one pays for when buying a camera is not so much the metal or the plastic but the program that makes the camera capable of creating images in the first place [...]' (Flusser 2000, 30).

The term program should be first understood on a basic technological level, as the sum of all the operations that an apparatus can be set to perform – that which the apparatus is prepared to do. In the case of photography, however, the program is an expanded concept that also extends to the photographer's multiple decisions while making a photograph. All those are also conditioned by the programmatic possibilities built into the apparatus. The apparatus may therefore be understood as also 'programming' its human user. This concept extends our previous technological definitions well into the broad cultural context of present-day post-industrial society. The news photograph, for instance, ought to be understood as 'programmed' or 'pre-programmed' by the entire structure of the newspaper, the press or the media industry, where it not only illustrates reportage but also incorporates and evokes many pre-existing cultural codes and contexts.[3]

At first glance, it may seem somewhat counterintuitive to describe photography with a concept so intimately associated with the computer; but this is a point Flusser insists on: 'Computers are apparatuses that process information according to a program. This is the case for all apparatuses anyway, even simple ones, such as the camera [...]' (1998, 259). This insistence does not weaken Flusser's point. Rather, it raises the suspicion that photography should have never been theorized and philosophized athwart the (analogue) medium of painting. Rather, it would have been better articulated as what Friedrich A. Kittler (2006, 49) described as a 'super-medium': the (digital) computer.

Unlike manual labourers surrounded by tools and industrial workers standing by machines, photographers must be inside their apparatus, so to speak, as they are bound up with it. Therefore, unlike a chess player, the human photographer cannot defeat the photographic program. The apparatus automatically assimilates these attempts at liberation and enriches its programs with them. The photographer's involvement, as set by the inner contradictions of an automatic apparatus, is therefore confusing. In fact, looking at a photographer with his camera and comparing his or her movements with the movements of a fully automatic camera, as in a traffic light camera for example, it may be tempting to overestimate human involvement. For it looks as though the fully automatic camera is always tripped by chance, whereas the photographer only presses the release when he or she approaches a situation in the world that corresponds to his or her intention, his or her worldview, or desired form of information.

3. This aspect of Flusser's philosophy of photography indeed resonates with some familiar postmodernist strands of thought.

If we look more closely, however, we can confirm that the photographer's demeanour somehow carries out the apparatus's inner instructions and only them. This happens despite any attempt to deviate from the program: 'The photographer can only photograph what is contained as a virtuality in the camera program' (Flusser 1986, 330). If we accept this programmed world image, it follows that apparatuses and photographers are bound together, and this inherent contradiction always remains in place:

> The apparatus does as the photographer desires, but the photographer can only desire what the apparatus can do. Any image produced by a photographer must be within the program of the apparatus and will be, in keeping with the considerations outlined earlier, a predictable, uninformative image. That is to say, then, that not only the gesture but also the intention of the photographer is a function of the apparatus (Flusser 2011a, 20).

Moreover, when we consider the photographic apparatus in aggregate, we may notice that within it there are several interwoven and contradictory programs: one for 'capturing', another for 'controlling' and possibly a 'transmitting' program as well. Beyond these, there must be many more – those of the photographic industry that programmed the camera; those of the industrial complex that programmed the photographic industry; those of the socio-economic system that programmed the industrial complex... ad infinitum. In fact, since every program requires a meta-program by which it is programmed, we may conclude that there is no program to rule all apparatuses. The hierarchy of programs is open-ended.[4]

And if the photographic apparatus incorporates photographers, their viewers and the various programs that program the apparatus, the question who owns the apparatus becomes moot. Who then holds the power of decision? Flusser argues that it is now the toolmakers, or information programmers (in contemporary parlance) who hold the power.[5] What does this mean for photography? For art? What form of criticism can adequately portray these phenomena?

Today's vigilante critics claim that society is split into a class of programmers and a class of those being programmed. But even this may be optimistic. 'The programmers', whoever they are, must themselves be subordinate to a meta-program:

> The society of the future without things will be classless, a society of programmers who are programmed. This, then, is the freedom of decision made available to us by the emancipation from work. Programmed totalitarianism [...]. Mind you, an extremely satisfying totalitarianism [...]. Hence I get the impression that I am making completely free decisions. The totalitarianism doing the programming, once it has realized itself, will no longer be identifiable by those participating in it: it will be invisible to them (Flusser 1999, 93-94).

4. "Every program functions as a function of a metaprogram and the programmers of a program are functionaries of this metaprogram" (Flusser 2000, 29).

5. "As cultural objects became increasingly cheaper, and machines and tools increasingly more expensive, one tended to believe that those who owned the machines and the tools held the power of decision. This belief is one of the roots of Marxism. But as it became evident that 'shape' and 'value' are synonymous, that it is the toolmakers who shape the future of society, this belief shifted. It is now the toolmakers ('information programmers') who are believed to hold the power of decision. (Flusser 1986, 329).

2. The Distributed Apparatus

In the case of photography, however, the question of programming is often elusive, for two main reasons. The first is perhaps easier to explain: a photographic apparatus, construed in the strictest sense possible, most often contains components that are not located within a single space. Rather, it is always a whole composed of many different components that can be spatially clustered, but most often are not. Even the simplest photographic apparatus is composed of a physical body, usually with a lens, a controller or processor, which need not be physically attached to the body, and some other necessary 'protocol'. The latter includes the environment where the photographs can be produced. Previously this used to be called a 'darkroom';[6] nowadays it is called a computer screen. Thus, the various components of a photographic apparatus are often spatially dispersed, as well as temporally distributed. This means that whatever programming comes into play, it is not generally run by the photographer himself. Rather, it is outsourced and run elsewhere. As argued above, it is often run by programmers. Of those, some design the camera's architecture, others construct its hardware features and some, more recently, write its firmware and software.

In other words, the popular image of the photographer as a 'lone wolf' is mostly myth. This narrative probably originates from popular twentieth-century histories of photography. The best known of these, Beaumont Newhall's, is a carefully constructed work of fiction devised with the aid of Hollywood screenwriter Ferdinand Reyner (Hill and Cooper 2002, 407-408). Such emphasis on the unique sensibility of the photographer-as-protagonist has been consecrated by other twentieth-century histories of the medium. Consequently, to this day, it is individual photographic images that are routinely celebrated as markers of a photographer's unique genius. This renders the human photographer, most often the artist-photographer, the almost exclusive prism through which history views the broad sweep of photography, completely ignoring the apparatuses and programs that bring both photographs and photographers into being. Rather, I argue, photographs, at least since the late nineteenth century, are never the result of a one-man show, but always the result of significant external programming.

3. The Horizontal Photographer

To highlight this point let me discuss the work of one of the only photographers that, to my understanding, critically engages with these questions. Since 1977, Aïm Deüelle Lüski has been using pinhole cameras – familiar photographic apparatuses still popular amongst artists and educators. These cameras do not contain an aperture accommodating the human eye, and consequently photographers using them are unable to 'frame' their 'shot' accurately. Pinhole cameras also do without proper optical lenses and so the images they generate are never formed tracelessly. Instead, they

6. In that regard, Adobe's decision to name their powerful photo-editing tool LightRoom cannot be understood as anything but a reference to or a joke at the expense of the history of photography.

7. Information collected from conversations and personal correspondence (Deüelle Lüski 2009–2015).

maintain an intrusive presence reminiscent of the shape, edges and overall materiality of the pinhole.

Beyond such usage over a forty-year career being rare in itself, Deüelle Lüski's cameras are unique in that they are hand-made and custom-built from start to finish, meaning that he uses sculptural techniques to construct the 'body' of the camera and dental drills to open 'lens' apertures in the body. Furthermore, these cameras may contain not one but multiple pinhole openings, all designed to admit light at the moment of exposure.[7] This generates decentred, blurred, abstract images with many focal points.

Conceivably, Deüelle Lüski's project is characterized by a certain indifference towards the classic products of photography, namely photographs. He is not indifferent to his products but rather to the ability much celebrated by 'professional photographers' to plan what will be inscribed in their photographs and to control it in the commonplace way in which a pre-existing, mostly commercially available camera becomes the means to capture an image. For Deüelle Lüski, photographs are little more than a side effect of a one-off device he manually constructs in response to a philosophical problem.

What's more, Deüelle Lüski insists on devising such a new camera for every shoot. This means that he spends weeks or months, or even longer, designing and building a camera that will then be used for no more than a day. Such a work process is, from the standpoint of most photographers, ridiculous. It is, we could say, as outrageous as building a new hammer for every nail. But it is this Sisyphean task that Deüelle Lüski is interested in. He explains this as an attempt to address a philosophical issue: 'It all began the moment I realized one cannot turn the same device at the world in different situations, cannot go on using the familiar device used by all photographers as if it has no essence of its own' (quoted in Azoulay 2013, 26).

Clearly, this statement echoes Flusser's statement that:

> "A philosophy of photography is necessary for raising photographic practice to the level of consciousness, and this is again because this practice gives rise to a model of freedom in the post-industrial context in general. A philosophy of photography must reveal the fact that there is no place for human freedom within the area of automated, programmed and programming apparatuses [...]. The task of a philosophy of photography is to reflect upon this possibility of freedom [...] in a world dominated by apparatuses [...]" (Flusser 2000, 81-82).

In 1998, Deüelle Lüski went on to build a 'horizontal camera'. This ended up providing the entire project with its raison d'être – systematic criticism of the vertical in photography (figs. 2-5). By 'vertical', Deüelle Lüski refers to the practice, prevalent since the invention of perspective, of having the image form on a vertical plain opposite the lens opening – whether a wall, a sheet of film or a digital sensor. In contrast, the main characteristic of Deüelle Lüski's practice is the horizontal placement of the negative, or often

negatives, within the camera. This causes the image to be exposed to more light on the edge abutting the aperture, and to receive significantly less light on the farther side. The resulting images are not only non-perspectival but also usually obscurantist. Nevertheless, this does mean that the vertical position selected in the past has always been but one possibility. Deüelle Lüski's horizontal photography can thus be understood as problematizing all other forms of photography in that it shows that its components are possible solutions to a single problem: how to produce referential pictures.

Fig. 2. Aïm Deüelle Lüski, Horizontal Camera, 1998.

Fig. 3. Aïm Deüelle Lüski, The Hasan-Bek Mosque, Jaffa, 1998 (with Horizontal I camera).
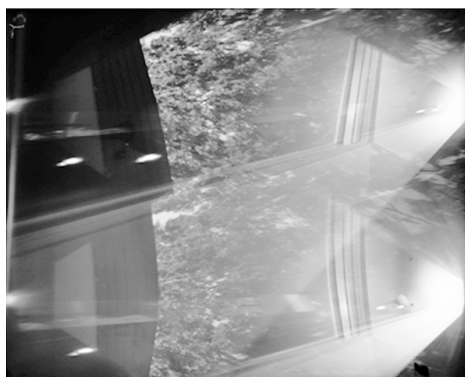

Fig. 4. Aïm Deüelle Lüski, Horizontal II Camera, 2011.

As unique as this process is, it is nevertheless not free of external programming. Deüelle Lüski has always used commercial film and photo-paper. Either way, his work is, as I have implied, the exception that proves the rule. All other photographers are committed to greater degrees of pre-programming. It is this condition, I argue, that defines photography as well as post-photography.

One all-too-logical conclusion from the above narrative may unfortunately be this: if the program always subsumes the human photographer's intentionality (or, as it is elsewhere called, 'subjectivity') it follows that his or her presence may not always be necessary. The increasing role of automatic production and distribution in photography gives this question a sense of urgency it has not always had. It has rightly been argued that 'since automation removes decision making from the photographer it has also resulted in situations that render the agency of the photographer more or less obsolete' (Palmer 2013, 50). Should we then abandon the myth of 'artistic authorship' with respect to photographic information? Most camera operators will undoubtedly settle for the term 'photographer', which, to reiterate, is not all that different from being 'a computer'. However, artists not satisfied with the title 'photographer' must aspire to become 'photo-programmers', 'photographic makers' or, as Flusser calls them, 'envisioners'. They cannot but seek to reinvent the parameters, the program and the prospects of their apparatus.

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