Digital photography has eclipsed its analog form, yet films cameras such as the Single Lens Reflex camera remain in use. This essay interrogates the status of the SLR camera in contemporary culture through a phenomenological lens to interrogate how, as a tool, it alters the user's relationship to the world. It then situates the SLR camera in the broader historical narrative of photographic technology and explores the contemporary relationship of the SLR camera to digital infrastructure. The essay proposes the notion of the “equipment-context” to refer to the broader cultural and institutional infrastructure that sustains SLR technology in the present environment. It contends that present interest in SLR cameras arises in context with an interest in film photography as a marginalized technology and aesthetic fetishization of the limited flexibility of older photographic cameras, and that the resuscitation of the SLR camera in contemporary culture brings it into dialogue with digital devices resulting in a hybrid of analog and digital.

**Keywords:** Single lens reflex camera, phenomenology, digital photography, digital infrastructure
draws out the cultural significance of contemporary use of SLR cameras in the context of surrounding digital infrastructure. Rather than conceiving of contemporary interest in analog technology as a rejection of digital, the paper argues for their mutual coexistence in a hybrid environment.

**Phenomenology of the Single Lens Reflex (SLR) Camera**

In *Being and Time*, Martin Heidegger conceives of the concept of “phenomenon” as that which “shows itself in itself” and phenomenology as the method for carrying out ontology, the investigation into the meaning of being. In ordinary affairs, Heidegger argues, phenomena show up within a horizon of intelligibility that is pre-theoretical, or implicit. In this implicit, average understanding, the human being encounters entities primarily as equipment in the service of some task (Heidegger 1927). I will adopt this orientation toward understanding the relationship of the human subject to the single-reflex camera. I will also employ Edmund Husserl’s concept of the phenomenological reduction, which involves bracketing our normal sense of the world of entities as having an existence separate from our own, and directing our awareness instead to the manner in which they appear (Husserl 1911). These orientations will bring to the fore those qualities of the SLR camera that are constitutive of its possibilities of interface with the human subject.

As conceived by Husserl, phenomenology purports to be a descriptive account of the first-person experience or structures of consciousness. Husserl argued that in order to carry out this task we must adopt what he called the “phenomenological attitude,” a suspension of the natural attitude that we adopt toward our experience in our everyday lives (Husserl 1911). In the natural attitude we posit a world of things as having an existence apart from our experiences. Husserl demanded that we “bracket” or suspend our belief in this world of entities and turn our introspective eye toward the experience itself, that is, to the activity of consciousness in order to foreground its structures (Husserl 1911).

Heidegger’s phenomenology, in contrast to Husserl’s, does not divorce experience from the meaning-laden activity in which it is constituted. Instead, Heidegger takes procedural engagement as a paradigm of the most primordial way human beings are anchored in the world (Wheeler 2015). In this respect, Heidegger prioritizes the act of coping with the world over the epistemological grounding of the subject as knower of objects. The subject’s absorption in some activity circumscribes the horizon of intelligibility through which objects enter into awareness. In the subject’s procedural involvement with a task at hand, objects enter the purview of intelligibility as tools. Heidegger distinguishes two modes through which subjects encounter tools: readiness-to-hand and presence-at-hand (Heidegger 2008). The former refers to the encounter of entities as equipment at the service of some task at hand, whereas the latter refers to the encounter of entities under some mode of theoretical thematization. As ready-to-hand, tools blend with the subject’s unconscious absorption in a specific task. As present-at-hand, tools become foregrounded as entities with properties. For example, systematic descriptions of the world as carried out by science become intelligible under a characterization of entities as present-at-hand.
Viewing the camera as equipment brings into focus the manner in which the photographer’s experience is shaped by the camera’s in-built technological possibilities and constraints. The photographer with the SLR camera as equipment has for her object the framing of a still image, which is later developed in a dark room from a film negative into a photograph. The process of taking the photograph is inextricably tied with the process of film development in the sense that the photographer shapes her choices of film speed and light exposure according to a set of preferred manipulation techniques available in the developing room. For example, a photographer looking for a grainy effect on a printed image might choose fast film (film of high light sensitivity) and magnify a relatively small portion of the image in order to create the desired textured effect. Here, the photographer shifts some of the burden of control from the capturing process to the film developing process. In the context of designating the camera as equipment, we see that the end goal of photograph creation shapes the way that the equipment at the user’s disposal is deployed. However, the photographer may still encounter unintended effects on the way, or discover new ones in the manner of trial-and-error.

However, Husserl’s phenomenological dictum “to the things themselves” presents another investigative tool for understanding how the in-built constraints of the SLR camera shape the subject’s experience. By this dictum, Husserl means the observation of structures of experience as they appear from a first person point of view. By orienting the mind’s eye towards experience itself, the minutia of the subject’s interaction with the SLR camera can be made explicit. For instance, the human subject must manually operate the processes that the human eye carries out more or less automatically, such as focusing or controlling light exposure. The act of operating the camera thus introduces discontinuations within the subject’s interface with the world. The SLR camera acts as a mediating apparatus by imposing an array of new cognitive demands on the human subject. Looking through the viewfinder immediately presents obvious optic restrictions. The subject must look with one eye, while keeping the other closed, through a rectangular frame that severely attenuates the normal field of vision. The objective of capturing a still image, moreover, imposes relevance conditions on the subject, who must make a number of procedural choices. Relevance conditions refer to the set of possibilities that become salient under some objective.

Imagine on the one hand, a fashion photographer taking quick shots at a continuously moving model, and on the other, a portrait photographer slowly and painstakingly giving directions to her subject while adjusting her focus and aperture. The fashion photographer snaps impulsively while standing still or intuitively shifting positions in order to get several good shots out of dozens. The portrait photographer seeks to draw out a specific expression or emotion from her subject, changing her mind frequently about what she wants while withholding to press the shutter release. The fashion photographer’s relationship to the camera is more physical, and her experience of the world more kinetic. Her movements are directed by the cues of the model, and more broadly by the purpose of the camera. The dance that she performs would not be possible in that way outside of the context of the camera. Meanwhile, the portrait photographer’s relationship is slower and more explicitly technical.
These separate scenarios demonstrate the phenomenological range of experiences that the camera shapes.

To flesh out this relationship, let us pursue the analogy that the camera models the mechanics of the human eye. Both the eye and the camera consist of a light-tight frame, a lens system that brings things in and out of focus, a diaphragm that regulates exposure, and a light sensitive surface that creates the image (Swedlund 1974). In the eye, the iris performs the function of regulating light admission by changing the diameter of the pupil. The pupil constitutes the hole that allows light to encounter the retina, which, in turn, constitutes the light sensitive tissue. The camera simulates the functional apparatus of the eye in the following way: the diaphragm emulates the iris, the aperture the pupil, and the film the retina.

However, the camera also departs from the human eye in several crucial senses. The human eye does not create one imprint, but integrates a compound of images into a unified visual experience, which is tied to other cognitive functions via the thalamus, namely higher order processing in the prefrontal cortex that interpret visual experience (Swedlund 1974). To do this, the eye moves constantly between different points. The camera, meanwhile, focuses on a single point and records a wide range of visual information into a single image (Swedlund 1974). This alters the subject’s relationship to her visual experience by foregrounding details that the mediating apparatus of the camera brings into focus. The camera’s mediating constraints perform a de facto phenomenological reduction. Through the camera the world ceases to be a forum for action, but reduces to a set of explicit visual relationships. In the absence of a mediating apparatus, visual experience coordinates with auditory and tactile inputs to facilitate the subject’s navigation of a given environment. Through the prism of the camera, this kind of primordial interaction with the environment becomes secondary. Instead, appearances are foregrounded and intensified at the expense of other perceptual inputs. Following Heidegger, entities no longer show themselves as tactile objects, but show up as appearances by capitulating to the readiness-to-hand of the camera. The camera’s readiness-to-hand entails the presence-at-hand of visual phenomena. But the presence-at-hand of visual phenomena through the viewfinder is not one of theoretical thematization. Instead, the overlay of signification, as embedded in the categorization scheme of language, falls away into the background, and allows visual relationships to stand forth. For Heidegger, signification refers to the purposive context that renders entities in the world intelligible. The camera changes one’s relationship to these entities by shifting their register from tools to visual phenomena divorced from their context of use.

The phenomenological properties of engagement with the SLR camera bring into focus its entire equipment-context. Equipment-context here refers to the entire spectrum of auxiliary tools and processes that are relevant to the tasks of SLR photography. Thus, the experience of handling the Canon AE-1 model is shaped by the weight of the model, by the plastic and metal frame, by the sound of the shutter release, by the tactile experience of pulling the film-advance lever. The mind of the SLR user is cluttered with anticipation of film development as she coordinates the choices that she makes.
in real time with choices that she will make in the near future in the dark room. The fingers of the SLR user frequently adjust the focus and the shutter speed dial, rotate the aperture ring, and switch lenses. These tactile, auditory, and bodily experiences form part of a continuous field of experience that is visually motivated. What sets apart the SLR camera from other models is the totality of its embodied physical constraints. Film rolls are finite, and the darkroom institutes a sense of finality to the developed image, which itself is a tangible object with the texture of the chosen paper and the indexicality marked by a batch of photons captured in a specific spatio-temporal moment.

**Continuities between Analog and Digital**

The phenomenology of the SLR camera is bound up in its contemporary status as an ostensibly obsolete technology. The SLR camera’s discontinuity with the prevalent digital culture colours the phenomenon of its usage. The phenomenology of the SRL camera would thus not be complete without taking into account its quasi-anachronistic presence in contemporary culture. To understand the SLR camera’s contemporary role, its technological constraints must be compared with those of today’s digital models.

Over the span of the photographic camera’s history, camera models have coordinated convenience with adjustability. Glass plate cameras, for example, yielded higher quality images than early film cameras, introduced as a cheaper and more convenient alternative (Swedlund 1974). As film technology improved, convenience caught up with quality and plate technology slowly faded from the market (Pritchard 2014). Variables of convenience and adjustability were then directed at the lens and exposure systems. The 1880s box camera, for example, while light, portable, and easily operated by the public, contained a fixed-focus lens and one shutter speed, making it suitable only for brightly lit environments (Pritchard 2014). Similarly, single-reflex cameras were built for large-film formats initially, but as 35mm film superseded others in popularity, they were produced mainly for 35mm film format (Swedlund 1974). The Canon AE-1, specifically, was aimed at the amateur market, and was the first SLR equipped with a microprocessor for priority auto exposure. The AE-1 attempted to balance convenience and adjustability by introducing a compact body as well as electronic automation (Canon AE-1 2015). It kept the body lightweight and introduced automatic features that appealed to a wider public.

The shift to digital imaging follows a similar trajectory of integrating a new technology into an existing model. Just as roll film replaced glass plates, image sensors replaced film. However, digital technology signals a qualitative break in this trajectory. While the shift from glass plates to film involved incremental improvements within the paradigm of creating an image through a chemical reaction (the exposure of light to light sensitive chemicals), digital imaging sensors introduce a fundamentally different way of ‘capturing’ an image. Whereas film cameras create the image through an uninterrupted causal sequence of analogue transformations, making the negative the literal imprint of the collection of photons admitted on the light sensitive sheet, digital cameras convert the light signal into a matrix of numbers (Pritchard 2014). The atomic constituents of the image are a series of numbers algorithmically
represented as colour and brightness values. Digital technology thus introduces a qualitative divergence from the history of photography so far. The captured image no longer constitutes the index of directed light particles on a light-sensitive sheet, but rather a mathematical simulation of that information. This raises the question of whether the forfeited indexicality signals an entirely new medium, distinct from photography as hitherto understood.

Rubenstein and Sluis argue that the digital image should be understood as a simulation of analog photography because the algorithmic computations it entails are inherently flexible (Rubenstein & Sluis 2013). Numerically represented data can also be algorithmically reproduced as texts, sounds, and videos. What they share in common is a system of representation, which simulates effects created initially through analog processes. This has wide ranging implications for both the photographic process and the photographic image. The digital image can be realized in different computational systems and its numerical constitution entails endless possibilities of manipulation. While the production of the film image ends in the dark room, for digital images the process of manipulation stays open ended. In a sense, the image never achieves a final form as different reading software can vary the expression of its values (Rubenstein & Sluis 2013). Moreover, image editing software replaces the dark room as the technical environment in which further manipulation takes place.

The digital camera also reformulates the relationship between user and machine. The complex software embedded in digital cameras, on the one hand, enacts an epistemological estrangement between the human subject and the camera. While once the user was able to learn with ease the internal mechanisms involved in photographic technology, with digital technologies this is increasingly less the case. The algorithmic complexities that go into producing a polished digital image elude the average user and most professionals. On the other hand, digital cameras radically widen the possibilities of adjustability. Where film technology admits up to 3200 ISO, ISO referring to the international standard for measuring film speed, digital cameras admit exponentially higher speeds (Pritchard 2014). This is also the case with shutter speed and aperture. Where the Canon AE-1 SLR admits a range of two seconds to a thousand’s of a second in shutter speed, modern DSLR cameras can admit between thirty seconds and eight thousand’s of a second (Pritchard 2014). Besides widening existing spectra, digital cameras introduce new capacities such as live preview, continuous shooting, infinitely larger storage, and inbuilt editing tools.

The axes of convenience and adjustability remain relevant in the digital paradigm. Most digital cameras can perform a minimum range of functions whether they are point-and-shoot or single reflex cameras. However, what point-and-shoot cameras gain in convenience through reduced size, they lose in adjustability with regard to optics and manual adjustment of variables. Similarly, what DSLR cameras gain in adjustability such as highly specialized lenses, number of pixels and other digital tools, they lose in convenience through increased size.

These contrasts notwithstanding, there are grounds for construing the shift from SLRs to DSLRs as continuous. The constitutive features of SLR cameras were in their heyday a combination of state
of the art technology with variables of mass appeal and convenience, a case in point being the inbuilt microprocessor and the auto exposure option. The automatic features characteristic of DLSRs and other digital cameras conform to this narrative of incremental change. In this sense, the replacement of film by electronic image sensors is no different from the replacement of manually controlled shutter speed and aperture with electronically controlled ones. The newly-animated mythic status of the SLR camera has more to do with the image of the past in the contemporary mind (Mosco 2004). The banality of what was once state of the art is reanimated as sublime in its newly instituted status as obsolete.

**Old Technology, New Infrastructure**

I have discussed some of the differences between film-equipped cameras such as SLRs and digital cameras such as DSLRs and attempted to answer the question of whether the displacement of the former by the latter changes the meaning of photography. I have suggested that this shift, while introducing a qualitative rupture with the past, can also be construed as continuous on the grounds that the morphology of camera models throughout history has always juggled variables of convenience and adjustability relative to the then state of technology. I have also suggested that the claim of a purported rupture is motivated by a nostalgic reconstruction of the value and image of past technologies. I will now attempt to articulate the relationship of present interest in the SLR camera with its surrounding digital infrastructure. I will argue that the anachronistic presence of SLR cameras in a technological environment that deems them obsolete motivates interest in their revival. I will also argue that the narrative of the DSLR succeeding the SLR in a linear progression might be erroneous and that our current cultural milieu is best characterised by a synchronous proliferation of photographic technologies. This entails an integration of SLR technology into surrounding digital infrastructure. A discussion of the contemporary role of the SRL camera thus necessitates a discussion of the infrastructural context in which it is embedded.

Infrastructure refers to the background cultural equipment that ensures the continued functioning of a specific tool or institution (Bowker 2010). I distinguish here between two types of infrastructural contexts: local and global. Local infrastructure refers to the most immediate equipment-context SLR cameras, such as tripods, film rolls, repair shops, film developing equipment, darkrooms, and the market where this equipment is available for purchase. Global infrastructure, meanwhile, refers to larger entities that enable the production and sustenance of a technology and its equipment, such as corporations, factories, factory protocols, innovation labs, and legal parameters. Both global and local infrastructure are in flux as markets, technologies, legal boundaries, and cultural tastes change over time.

The advent of digital cameras has greatly eroded the infrastructure that enabled SLR cameras to occupy a central role in the photography market. While shops once carried large varieties of photographic film, processing equipment, and other adhesives, today SLR cameras occupy only a small
niche market (De Stefani 2015). The global SLR infrastructure, moreover, has all but disappeared, as film cameras are no longer produced en masse. SLR enthusiasts can find them in pawnshops, online stores such as eBay, and niche interest shops. Photographic film and darkrooms are no longer widespread, though film continues to be produced by companies such as Kodak in the United States, Fujifilm in Japan, and Adox in Germany. The future of SLR cameras depends in large part on these attenuated local and global infrastructures. The survival of these infrastructures, in turn, hinges on the cultural demand for SLR models and photographic film. Understanding how this demand arises and is sustained requires an understanding of the cultural value of photography and its relation to the past.

The contemporary ubiquity of digital cameras reformulates the relationship of users to past technologies. Nina Lager Vestberg discusses a view of photography in contemporary consciousness as residual in the sense that even though digital technology has radically redefined the medium, the image of photography in popular consciousness continues to be emblematized by earlier permutations of the technology such as photographic film (Vestberg 2013). Because such impressions have sunk into popular consciousness, they fade at a slower pace than the technology itself. This is evident in the depiction of photography in films and literature, which continue to propagate the image of film photography. Examples include the Thai film Shutter (2004) and the American film One Hour Photo (2002) in which the dark room settings serve the psychological thriller plots. The representation of polaroid photography in films such as Memento (2002) at a time when polaroids had faded from the market further supports Vestberg’s notion of the residual as “the flexible territory where the past overlaps with the present” (2013, p. 126). While popular culture gradually assimilates digital technology into its consciousness, the residual image of photographic film continues to exert cultural influence.

Interest in SLR cameras today arises in context with an interest to preserve and engage with photographic film. According to Di Stefani, “a younger demographic is attracted by the retro-vintage look film cameras sport and by the lengthy shooting and developing process” (2015). Because digital cameras automate many of the manual functions intrinsic to analog ones, return to the processes of film development entails the recovery of the user agency lost in digital camera paradigm. Moreover, some argue that analog photography generates qualities of image depth and graininess that cannot be replicated by digital technologies (Beck & Burg 2013). These qualities appeal to film aficionados in conjunction with the constraints of adjustability embedded in the SLR camera. These constraints, at the same time, generate appeal in virtue of the arbitrary limitations that obsolete or fading technologies entail. While the flexibility inherent in digital cameras allows for wider effects, the limitations of film cameras constrain the possibilities of outcome. A parallel may be drawn here to the rule-based art of early and later twentieth century, such as Oulipo in poetry and Minimalism in visual arts, in which a set of agreed upon formal rules serve to generate a work of art (James 2009). Oulipo poets construed rules such as “a poem in which each line is a single word, and each successive word is one letter longer” (James 2009, p. 34), whereas the Minimalists adhered strictly to geometric abstraction and formal reduction (Belli 2006). The selection of the rules varied from arbitrary to aesthetically-oriented ones. In many
ways such formal constraints delineated a set of arbitrary parameters in which creative expression could be cushioned. Similarly, contemporary users of SLR cameras return to an earlier technology to engage with a set of arbitrary constraints, but also to resuscitate the kind of human-machine relationship that analogue photography entails.

The reanimation of the SLR camera in contemporary culture can also be attributed to the proliferation of photographic forms. Rather than viewing the evolution of camera models as linear in the sense of new models replacing old ones, we can view them as consisting of overlap and accumulation. The SLR camera forms part of an increasingly wider palette of photographic technologies available. This is underscored by the occurrence of similar revivals such as Lomography, an art movement started by Viennese students in the 1990s that privileges instant film cameras, which grew into a commercial enterprise (Albers & Nowak 1999). The movement advocated the production of quick analog snapshots in different situations and positions resulting in unpredictable and often colourful photographs (Albers & Nowak 1999). Albers and Nowak (1999) argue that Lomography “responds to fundamental questions about the status that photographs have in the age of digital image processing... at a moment where it is losing its role as the leading visual medium” (1999, p. 101).

These revivals cannot be extricated from their contemporary contexts because they do not merely reiterate past technologies, but rather appropriate aspects of those technologies for the contemporary market. While Lomography attempts to preserve snapshot photography in light of digital predominance, it also exploits nostalgic demand for point-and-shoot cameras by endowing their commercial models with built-in color effects. Lomography today represents a niche market of instant film cameras that both reproduce and heighten photographic film visual effects by incorporating features such as fisheye and color effects that imitate aged film photographs (Blenford 2007). Both the Lomography movement and present interest in SLR cameras expand the spectrum of photographic media by offering alternatives to digital photography that curtail their powers of manipulation. It would be erroneous, therefore, to wholly consign peripheral technologies like SLR cameras to the past. Even though SLR cameras have been pushed to the periphery of photographic culture, they also exist together with the digital paradigm.

So far I have explored the status of SLR cameras as existing uneasily in the digital paradigm. However, the continued presence of film photography and persistent interest in SLR cameras also yields a hybridization of old technologies with new infrastructure. With few exceptions, digital pervades contemporary media technologies from video cameras to computers, phones, printers, and scanners. When the processes of film photography take place in this digital environment, the result is a hybridization of analog and digital forms. The eroded equipment-context of SLRs facilitates its extension into digital contexts. Digital infrastructure thus becomes part of the wider sustaining equipment-context of SLRs. For example, the practice of scanning negatives combines the analog technologies of film with the digital technologies of scanning. Digitization of analog photographs through scanning prepares them for further digital manipulation. The indexical information embedded in the image is preserved in the process of conversion. However, once converted into a digital image,
the information of the analog event becomes subject to manipulation in its new constitution as a matrix of pixels. Proprietary photo editing software such as Photoshop and free software such as GIMP can be used to edit the image in innumerable ways. This hearkens back to Rubinstein and Sluis’s (2013) insight that the algorithmic image “never achieves a state of finitude,” but operates in a constant state of deferral (2013, p. 29). By becoming subsumed in the simulative processes of binary code and supervening software, the analog image loses its integrity as a “cultural unit” and becomes a component of the wider cultural space of networks, social media platforms, databases, video, aggregations of data, and the unregulated assemblage of human agencies.

**Conclusion**

The phenomenology of human engagement with the SLR camera extends beyond the affectual experience of the SLR camera-human interface. It dwells in the network of relationships of dominant technologies with peripheral ones and in the wider infrastructural context that accommodates the use of such technologies. The human subject’s mode of encounter of the SLR camera as ready-to-hand thus resides in a horizon of significance that encapsulates the peripheral status of the SLR camera in contemporary culture on the one hand, and its absorption into the digital paradigm on the other. That is to say, the SLR user resuscitates an older technology in order to effectuate an engagement with a set of technological constraints, namely film photography, but this resuscitation, in turn, interweaves with the dominant paradigm. The point where film technology ends, namely upon film development, and where digital processes such as scanning take over forms the node of convergence of these paradigms. The equipmentality of the SLR camera thus, in its designation as a means of engagement with the world, resides both in its tension with the surrounding culture and its inevitable synthesis with it.

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