One of the problems with using studio practice as research is that unlike established research methods, we are obliged, to some extent, to firstly define the nature of that practice. It is for this reason that we promote terms such as 'experiential knowledge' as constituting the unique kind of knowledge we produce through our research practices (Barrett, 2007). However, while this is essentially a productive outcome in the legitimisation of art practice as research, it does still tend toward the language of traditional research methods and away from that normally associated with art practice. The purpose of this paper is to demonstrate that the theoretical discourses of specific creative practices can be useful in establishing a rigorous yet unique and relevant research identity for those practices. In particular I am focussing on photography as it has both a solid and unique theoretical discourse associated with it and it has also become increasingly prominent in qualitative research practices in the second half of the 20th Century.

The are however some very early examples of photography being used for research. In 1874, for example, two British astronomers, James Carpenter and James Nasmyth, published a book called The Moon: Considered as a Planet, a World, and a Satellite, which featured photographs (Woodburytypes) of the surface of the moon. The images were, in actual fact, photographs of plaster models that were modelled on drawings taken from observations through telescopes. The images were therefore four times removed from the original, the moon itself. As Carol Armstrong (1998) points out, in her book Screens in a Library: Reading the Photograph in the Book, that despite this fourfold removal from the original the very fact that the images were photographs was in itself enough to perform the task of scientific verification. As the half tone printing press was still at least ten years away, photographs were tipped in to books after printing which, as Armstrong says, emphasised their distinct materiality and as such appeared to bring with them something more valuable than the conventionally printed picture or word: 'photographs, unlike woodcuts, are something different and extraneous [to the page], hors texte, coming from outside, "from nature," to verify what is internal to the text.' (Armstrong, 1998, p.37-38). She later expands this to address more directly the comparative appropriateness to the page of both the engraving and the photograph: 'It is as if the engraving is explained by the textual world it inhabits so easily, whereas the photograph, which is still exiled from the page and its sorts of explanations, explains

itself naturally, not textually.' (Armstrong, 1998, p.105). Armstrong identifies the crucial characteristic of the photograph as 'still exiled from the page' in comparison to the easily assimilated, if not page-native, engraving. Here the photograph is understood as an object produced by nature itself. Carpenter and Nasmyth made no secret of the fact that their images were of plaster models, but their material difference to the other conventionally printed images in the book was so pronounced that their perceived naturalness seemed to supersede their obviously constructed subject matter.

It is no coincidence then that the relationship of photography to nature occurs in the title of another of the books that Armstrong studies, William Henry Fox Talbot's Pencil of Nature. Of particular interest is Talbot's image entitled A Scene in a Library, a photograph of two shelves of books in what appears to be a neat 19th Century library. However the scene is not actually in a library but a specially constructed shelf in the courtyard of Talbot's English residence, Lacock Abbey (Bate, 2009, p.18). This image was therefore obviously an important one for Talbot to create as he did not simply give up on the project after realising that the image would not be possible in the actual library due to the lack of light. He went to the trouble of fabricating a shelf in an area where there was enough light to make the exposure, suggesting that this is an image that Talbot was determined to create, that its content was something that he truly wished to express. This constructed scene therefore exhibits a number of the theoretical conundrums that the medium of photography has presented to its theorists over the course of its existence: the conflict of the photograph's capacity as a medium of documentary evidence and its simultaneous capacity as an expressive artistic medium; the relationship between photography and other media such as printmaking; and even writing, but also photography's historical role in the production of knowledge.

Carpenter and Nasmyth's book and other examples that Armstrong studies in *Scenes in a Library*, including Charles Darwin's *The Expression of Emotion in Man and Animals* are scientific publications in which photography is employed to prove aspects of what is written in the books. Photographs, regardless of their content were able to act as scientific verification through the perceived intimacy of their relationship to nature, the very thing being studied. To contemporary audiences the fallibility of such methods is obvious, however, while attitudes toward photography may have evolved, there remain

those that are still based on the same basic assumptions evident in Armstrong's examples. Assumptions as to medium's the inherent 'photographicness' being not only a clearly identifiable characteristic but also something that is identifiably more authentic and true than other forms of representation, visual or otherwise. The implications of such assumptions are not simply theoretical, and reach far beyond those familiar arguments related to photographic truth, evidence and manipulation that are becoming increasingly tedious anyway. Where these assumptions can be most problematic is, just as in the 19th Century examples, when they are associated with the production of knowledge, where claims to truth and evidence carry so much weight.

Photography is obviously no stranger to academic research, in fact it could be argued that it began as a result of it and has been a part of it ever since. However, while it is not uncommon to find it *contributing* to research, it is less common to find it as the main research methodology, the primary activity through which information will be gathered or the actual site of knowledge production. Practice-led research has opened up the possibility for photography, like other studio practices to be recognised as research practices in their own right. However outside of specific examples these practices are not usually discussed in terms of their actual merits as research methodologies. Photography is a peculiar case precisely because it already has a number of established roles within research practices that will be discussed shortly. However the purpose of this paper is to discuss photography's relevance to research practices through reference to some of the more complex theoretical arguments that have challenged long-held assumptions about the medium. In particular I will show that the theory of photography is absolutely crucial in understanding how photography can operate as a research method in a practice-led research project.

At the 2011 ACUADS conference I argued that, as a result of the fact that art theory and art practice are seen as mutually exclusive entities, many of the arguments around art practice as research generally ignore traditional art theory despite sharing the art object as their central focus. The result of this, I argued, was that some theoretical discussions of practice-led research were actually echoing outdated theories of art, such as formalism and could thus be subject to the same criticisms, demonstrating the necessity of uniting the two previously distinct fields. (Whamond, 2011). Rather than ignore art

theory in favour of scientific analogies, a more productive approach is to use art theoretical tropes to make sense of the more complex issues of art practice as research for the simple reason that it has already addressed a number of them. All of the key arguments have already been had, and if they have not, there is at least an existing discourse native to the subject providing the tools for us to conduct new ones without having to import imperfect analogies from other disciplines.

The case is the same with photography in that the key theoretical arguments have already been had with the more persistent points continuing to emerge from time to time but not however in the context of practice-led research. This is because the discussions of practice-led research have been general in nature, arguing for art practice as a whole to validate it in a research context. However photography is one medium around which a theoretical discourse has developed with its own unique points of emphasis and specific language. The terms punctum and index, for example, have specific currency in the discourse of photography as philosophical attempts to understand and explain this uniqueness. Both of these terms take up the majority of the discussion in James Elkins' (2007) book Photography Theory from the Art Seminar series. That a book could be published on this topic alone with contributions from 37 writers is testament to the unique and complex philosophical issues that this medium has given rise to in its relatively short history. With such an intellectual investment in the medium, its theoretical discourse can clearly not be overlooked when discussing photography in the context of practice-led research. If it is indeed photography that is leading the research project then the manner in which that occurs needs to do so with respect to the key photo-theoretical issues in conjunction with those facing practice-led research more generally.

Photography's position in the context of academic research is multi-layered. Firstly and most obviously it has entered the domain of research simply as a result of its general ubiquity. That is, just as it has been taken up by many disparate social, cultural and industrial practices, so it has been taken up by academic research. This has mainly occurred in the social sciences in fields such as anthropology and ethnography. Contemporary practitioners using photography in this context are more or less aware of the main theoretical debates surrounding the medium, at least enough that their research projects are able retain an acceptable level of rigour. In the best cases these

complexities have in fact been incorporated into the project. Dona Schwarz (1989) has published an account of a research project undertaken in rural farm town in the USA where both taking photographs and looking at them formed the basis of the project. Importantly, the purpose of the article is to provide 'a theoretical foundation for using photography in qualitative research' (Schwarz, 1989, p.119) This approach has allowed Schwarz to think critically about her medium, recognizing that photographs are 'inherently ambiguous, their specifiable meanings emergent in the viewing process. This ambiguity is not a disadvantage or limitation; rather, the multiple meanings negotiated by viewers can be mined for the rich data they yield.' (Schwarz, 1989, p.122) This is a considered approach and does not make any assumptions as to the fixity of photographic meaning or pretentions as to the relationship of the process to 'nature'.

In the worst cases however, these assumptions about photography's perceived mechanical objectivity are redeployed as a convenient validation for the medium's use as a research methodology, as can be observed in the following example:

You may not agree with his/her (subjective) evaluation, but thanks to the objective nature of photographs you cannot deny its truthfulness; "photographic images do not seem to be statements about the world so much as pieces of it" (Sontag). In this sense, these pieces serve as pieces of evidence. Evidence, of course, is what every one is looking for. (Nordeman, 2007)

However there are more considered approaches coming from otherwise rigorous disciplines and research practices that still fall victim to the same assumptions. In a promisingly titled paper, "Poetry and Photography: An Exploration into Expressive/Creative Qualitative Research" Furman, Szto and Langer (2005) attempt to explore the possibilities for the creative practices of poetry and photography to function as research practices. In a transcribed conversation Furman asks Szto to explain why photography is research, Szto (2005, p.140) states:

By its very nature it is research, it is writing with light. Whether you are writing with words or with light, you are writing. You are presenting an illustration of the

world. Photography documents more accurately than statistics, it is a direct representation of reality.

In both examples there is an appeal to the "nature of photography" which is "objective" in the first instance and "writing with light" in the second. It is the later with which this paper is concerned as it trades on the familiar yet flawed theory that photography is an example of an indexical sign, that is, a sign caused by what it represents.

The concept that photography is a form of "writing with light", is essentially a metaphor derived from the Greek origins of the name of the medium - a common site of excavation when one seeks the essence or nature of photography. Obviously however, names are arbitrary and subject to any number of influences and preferences exercised by the person doing the naming. In the case of photography it was the scientist John Herschel whose name for Talbot's invention, a hybrid of the Greek phos for light and graphie for drawing or writing, was a clever yet logical extension of Talbot's concept of the Pencil of Nature, relying on the assumption that there was in fact some kind of writing or drawing going on in the photographic process. This association with writing has given rise to a high volume of figurative language based on the metaphor of inscription, to the point where it is seen less as a metaphor and more as a natural fact of the photographic process. A brief scan of a few of photography's key theoretical texts quickly turns up words such as 'footprint', 'fingerprint', 'palm print', 'Shroud of Turin', 'stencil', 'imprint', 'transfer', 'trace' and of course 'writing' and 'inscription' from writers as diverse as Susan Sontag, Roland Barthes, Rosalind Krauss, Andre Bazin, Christian Metz, William Mitchell and others. Where this figurative language ultimately points is to the pervasiveness of the inscription metaphor and its most popular manifestation, the index. It is not surprising then that it permeates through to the research practices that use photography.

Indexicality is seen to provide a link to the natural world, its latent objectivity equating its images with observational note taking (Collier and Collier, 1986, p 9; Szto, 2005, p.140). Marcus Banks' (2001) book *Visual Methods on Social Research* is considerate of contemporary theories of photography including the discussions around photographic truth (through Allan Sekula) and power relations (through Michel Foucault and John

Tagg), however, like many others, takes the idea of indexicality as a *fait accompli* of the photographic process:

The object and its representation are linked indexically in a photograph; light reflected from the object causes chemical changes on the surface of the film, subsequent manipulation in the dark room notwithstanding. (Banks, 2001, p.50)

While this is a relatively minor point in the context of the book it does formulate some of the basis for Banks' ideas about the general usefulness of photography for social research. Similarly, in John and Malcolm Collier's (1986) book *Visual Anthropology*, the exact term is not used but indexicality can nevertheless be identified as a guiding principle in their key concepts. While it is dated, *Visual Anthropology* remains one of the key foundational texts on the subject. It does deal with some of the pitfalls of subjective influence and selectivity in framing and image selection, however some of the key theoretical problems are overlooked in their general reasoning for the medium's appropriateness for research. The Colliers (1986, p.8) repeatedly praise the camera's 'impartial vision' resulting from its 'nature' as 'an optical process, not an art process.' They add that, 'its images were made by real light, as natural as a shadow cast by a hand, rubbings taken from stones, or animal tracks on the trail' (Collier and Collier, 1986, p.8) echoing almost to the letter the figurative language of photography's theorists. Rosalind Krauss (1981, p.26), one of the staunchest supporters of the photographic index describes it as follows, using no less than seven different metaphors:

For photography is an imprint or transfer off the real; it is a photochemically processed trace causally connected to that thing in the world to which it refers in a manner parallel to that of fingerprints or footprints or the rings of water that cold glasses leave on tables. The photograph is thus generically distinct from painting or sculpture or drawing. On the family tree of images it is closer to palm prints, death masks, the Shroud of Turin, or the tracks of gulls on beaches. For technically and semiologically speaking, drawings and paintings are icons, while photographs are indexes.

The metaphorical similarity shows that what Krauss and the Colliers value about photography is the idea that the metaphor permits a connection to the natural world and therefore a uniqueness that distinguishes it from 'art'. However what it also shows is that when photography's nature is called upon to prove a theoretical point or justify its capacity for research, the same essential assumption that photography *naturally* involves some kind of inscription process, or that it is inherently indexical, emerges.

For this reason, when we look at the criticisms of the indexical theory of photography we will also uncover the weaknesses in the arguments for its appropriateness as a research methodology. This is not to say that photography itself is not appropriate as research, simply that the justifications for it are problematic. Joel Snyder and Neil Walsh Allen (1975) provided some early criticisms of the indexical theory of photography that they characterised as the 'mechanical model' of understanding the nature of photography. This model, they argue, is not an adequate way of understanding photography because of the optical, chemical, mechanical, environmental, not to mention emotional, cultural, political elements that factor into the production of the photograph (Snyder and Allen) They reject the idea that the photograph is a *passive recording* of some pre-existing image because the idea of physical trace cannot account for complex and *active* processes that *produce* a photographic image. This key distinction that photographs are productions rather than recordings not only problematises the theory of indexicality but also its traditional justification as a research methodology.

If we are then to consider photography's role as the primary research methodology as in a practice-led research project the need for a unique and prominent theoretical identity is made more clear. In discarding indexicality as a guiding principle on Snyder and Allen's (1975, p.159) basis that 'the way in which the picture is made has little to do with the way we normally interpret it', our focus shifts from the production of the image to the experience of viewing. This shift suits our purpose because, as has been shown by Estelle Barrett (2010, p.4) among others, the site of knowledge production in the creative arts research context is the work of art. In this case it is the photograph and as we have already established, it is experiential knowledge that we will gain from it through our physical engagement with it. These terms, 'experiential knowledge' and 'knowledge production', however, originate from the traditional research context and are possibly too

general to communicate the exact nature of what it is we are experiencing when looking at a photograph. If we look to the literature on research for an answer we may find some useful terms and phrases coming from qualitative research, however these will still be unrelated to the specifics of photographic meaning. Instead the theory of photography offers a number of insights into this very issue. The most obvious would be Roland Barthes' (1981) idea of the *punctum*.

Barthes' emotive narrative in *Camera Lucida* offers this and some other unique linguistic characterisations for aspects of the photographic experience that may otherwise be inexpressible. This makes Barthes' work important for both the justification of photography as research but also in articulating the kind of knowledge we are likely to gain from the experience of it. Developed in an attempt to differentiate between the variety of responses Barthes himself had to different photographs, the *punctum* refers to that aspect of the photographic image that is difficult to locate and articulate but nevertheless is powerfully present for the viewer, experienced physically (Barthes, 1981, p.51). Barthes (1981, p.26–27) describes the *punctum* as 'this element which rises from the scene, shoots out of it like an arrow, and pierces me... A photograph's *punctum* is that accident which pricks me (but also bruises me, is poignant to me)'

Is this not the very reason we use visual means in the kind of research we do, Precisely because there are aspects to our experience of the world that cannot be communicated with words or numbers, which by their nature remain in the world of experience? Photography's ability to evoke a *punctal* response in its viewer is the most convincing reason for its justification as a research methodology. Barthes' ideas may initially seem overly emotive and unwieldy in a research context, however such criticisms were once levelled at qualitative research for their focus on these same things.

Photography has the capacity to evoke powerful responses in viewers and communicate a specific kind of knowledge. In terms of justifying this in a research context, there would be little gained in an argument for photography's intimate relationship to nature or its own 'nature' as the site of the inscribed trace of light, but plenty in being able to articulate precisely *how* photographs produce knowledge. There is a clear justification here for a closer relationship between practices and their theories in the context of practice-led

research. This logical unity performs the task rendering restrictive analogies from other disciplines useless and strengthening the theoretical foundation of creative research practices by enabling the critical identification of embedded assumptions that may be present.

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