Metadata_Photography and the construction of meaning

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For my family

I owe an immense debt to the generosity, patience and inspiration of the individuals who afforded this research to develop. I am profoundly grateful to my supervisors, Ann Shelton, Dr. Martin Patrick and Wayne Barrar without whose support I would have not been able to complete this thesis.

Thank you.

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Abstract

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Photographic technology is increasingly respondent to a desire for the production and consumption of information. The current age of photography not only possesses the ability to capture the image, but also to capture photographic metadata as supplemental information. Engaging in the premise that the photographic image exists as an incomplete medium to the transfer of information, this research identifies the acquisition of data as a means to resolve interpretation and quantify the photographic image. Inhabiting a complex territory within this structure, the photographic image manifests multiplicity and operates as source, production, and capture of information. This work challenges the perceptions of how to engage with the dialogues created between the photographic image, and the externally appended metadata.

Keywords: photography, metadata, discourse, archive, supplementation, data

Foreword

The built environment is often considered to be a public domain, forming the borders and perimeters of modern society, which such boundaries both enclose and contain. The urban environment limits, encloses and contains. Constructed to gentrify and tame the unknown wilderness, architecture and urban environments are subsequently viewed as locations of familiarity; safe, known and quantifiable. However, actual construction sites and the processes they entail are in fact hidden, or incommunicable to the urban public. Thus, framed in this manner, construction sites operate as locations of uncertainty.

I have created this project *"Excavations"* through my photographic documentation and analysis on the construction site of New Zealand's largest communications and data-network provider. My initial presence on the construction site alerted me to the fact that a significant amount of documentation would be required to build a structure, corporations must adhere to law under national, local, and district jurisdictions, as well as following the resource management act, the building code, the health and safety act, and so on. In addition to these requirements, this site has voluntarily registered for an environmental sustainability program, under which, the entire energy and material consumption of the building will be recorded, vetted and finally allocated a performance value. All these forms of data need to be formalised, categorised, authorised and granted by regional authorities before any work on the site begins.

Finished buildings differ from the construction process itself, in all their minute permutations and transformations, many of which disappear into hidden territory through the processes of construction. Similarly, in photographic practice, the very act of exposing a photographic image is haunted by the act of creating metadata. In this case, the photographic image too, both conceals and encloses its inner processes, appending generally unseen digital metadata to the photographic image. My current project is an attempt to resurrect and make visible some of this hidden information embedded within the built environment, by closely investigating the notion of metadata.

Introduction

The process of capturing a scene or subject through photography has served to coerce, convey, and inform many sectors of society. The use of photographic image is widely embraced, and the technologies of the medium allow the photographic image to be easily and endlessly reproduced. Thoroughly permeated via the channels of the mass media, society increasingly relies on the use of photographic image. However contemporary photographic theory comments upon the fact that the photographic image is highly ambiguous. This ambiguity or obscurity produces a condition of unfulfilled expectation.

One such unfulfilled expectation manifests itself as an unyielding appetite for the production and consumption of information. This research asserts that photographic technology responds increasingly to this desire. Within photography this production of information takes the form of an entity called “metadata”. Currently photographic metadata exists as an appended file or supplementary store of information. It is captured and recorded at the same moment as the exposure of the photographic image. Invisibly linked to the photographic image, it becomes available only through the assistance of computer or camera. Described as the “data about data”, metadata facilitates and instills from “within” and “without” the photographic image, appending an additional store of information. This act counters both the ambiguity of the photograph, and supports society’s desire to quantify this ambiguity through the increased acquisition of information.

This research engages in the premise that the photographic image is an altogether uncertain communicator of information. While it is in fact a powerful tool to reproduce visual events, photography is an incomplete form of communication, as any image is dependent upon external factors for increased readability (Sekula, 1982: Sontag, 1978). Therefore could metadata be considered as an external mechanism? If so, is there a point at which I could re-conceptualise the use of metadata as a library or archive like source of information? Could this metadata also operate as a means to add complexity, clarity, and meaning as an appendage to the photographic image?

Chapter One:
Society and the construction of meaning

Photographic discourses

The historical discourse of the photograph considers the modes of interpretation that affect the ways society views and addresses the photographic image. Akin to any other form of discourse, the multiple dialogues presented within photographic images are subject to culturally specific definitions. Photography can be considered as the production of an artefact to communicate information within a given context. However, the moment any image is removed from its original context (the location of its recording), readings of the image may begin to shift. This shift transforms reading of the image, perpetually inviting reinterpretations at a later date. As John Berger states, "the ambiguity of a photograph does not reside within the instant of the event photographed" (Berger, 1982, 88). The photographic image can be seen to offer a form of irrefutable proof, however, it also offers indeterminacy and a certain open-ended quality. Richard Bolton remarks "photography's greatest asset is perhaps its adaptability" (Bolton, 1985, xi). Despite any photographer's initial intentions, photography will always be continually reinterpreted as society's desire for that piece of photography changes in turn. Allan Sekula identifies this discourse as the "notion of exchange" (Sekula, 1982), an exchange that is hindered by disruptions caused by dislocation of the photographic image from its original context.

> This general definition implied, of course, that a photograph is an utterance of some sort, that is carries, or is, a message. However, the definition also implies that the photograph is an 'incomplete' utterance, a message that depends on some external matrix of conditions and presuppositions for its readability. (Sekula, 85, 1985)

This exact trait, however, affords the photographic image a highly mutable relation to that which is typically perceived as reality. Complication arises from the temporal gap between the moment the static image was created, and the ever-shifting present from which the image will be viewed. Despite this "contaminating" level of ambiguity of the messages offered through the use of photography, the photographic image has continued to exist as a widely dispersed and frequently trusted form of communication. The mechanical nature of the photographic process generates an impression of accuracy, and presents the photograph as a mechanism to represent "reality". The supposed attributes of transparency and objectivity are used to promote this reading of reality.

However, while the act of photography may manifest meaning or implication for the photographer capturing the image, the photograph as an entity itself is simply a surface with an imprinted image. The photographic image can be seen to have a value only when the viewer is able to make connections or engage with content displayed within the image. Rather than an authoritative system for the imparting of knowledge, this lack of connection, or value, ultimately reminds us that photographic communication exists as an inference of dialogue. A dialogue that is however, more often tainted by learned conceptions of viewing, Sontag relates, rather than the photograph acting as an invitation to engage in this dialogue. However, unlike textual or verbal forms of communication, photographic dialogue is initiated by one passive participant; the photograph. “Photographs, which cannot themselves explain anything, are inexhaustible invitations to deduction, speculation and fantasy” (Sontag, 23, 1978).

Precisely because photographic dialogue contains (at least) one passive participant, without an in ability to engage in rebuttal, or redefinition in a subsequent passage, the photographic image relies on indistinct interpretations of ephemeral “deduction” or “speculation”. The interpretation of the photographic image places the viewing participant into an active position. Victor Burgin attests to the ambiguity of the photographic image, citing that all photographs are obscure, or vague instruments that require effort in order to extract meaning from the photographic image.

> Meaning is not instantaneous. Meaning is discovered in what connects, and cannot exist without development. Without a story, without and unfolding, there is no meaning. Facts, information, do not in themselves constitute meaning (Victor Burgin, 91, 1982).

Burgin’s interpretation of the image incites a form of “self appending” of meaning onto an image. The photograph is not only to be gauged against the experiences of the viewer, but it also calls for a calculation to take place, the photograph asks to be actively quantified, judged against the collective experiences of the viewing participant. While the photograph requires and demands a borrowing of these collective experiences, these further complicate and obscure the reading of the photographic image. These mental operations place the image firmly within the territory of interpretive ambiguity. The widely accepted fact that no two humans can share exactly

the same experiences, constructs within the photograph an entirely new meaning every time the image is viewed, shared, or transmitted.

Current theory thus investigates methods by which to alleviate this condition of ambiguity within the photographic image. Nonetheless, one must also ask the question: why does society seek confirmation or communication that the photographic image cannot offer? If interpretation of photographic images is a cultural experience, it would then be an opportune position to investigate initially why, and how the photograph has become such an esteemed artefact within society.

Consumption and the photographic image

In the broadest interpretation, capitalist society is based upon the production and trade of the consumable objects. Currently information has been identified as a valuable commodity of exchange, exemplified by the mass media industry, which has grown exponentially during the past two decades. Feeding into this, the mass media operates as an interface presenting an endlessly flowing source of information to the public. Noam Chomsky states that the presentation of information is intrinsically bound into our greater cultural structure, “Mass media is a capitalist institution” (Chomsky, 1977). This mass production and mass consumption of media ultimately affects society’s interaction with information.

We can also see these fundamental changes in art as identified by Walter Benjamin, who notes a transformation within the production and perception of art as early as the 1930's. “Mechanical reproduction of art changes the reaction of the masses toward art” (Benjamin, 1936). Art and the fabrication of aesthetic objects has a considerable legacy as a tradable commodity within capitalist society, as noted by Chomsky “to be bought within a market - indicates the basic interlocking of a system of economic production and consumption i.e. ‘capitalism’ and the highly valued objects deemed ‘art’ ” (Chomsky, 1977).

Compatible with the bureaucracy of exchange, the photographic image provides society a perceived realistic view of the world, furthermore combined with an ability to transform information into an object or artefact

suitable to mass production. Sontag cites consumer society as based on the use of the photographic image, both as a means to capture and to collate, ultimately feeding the perpetual motion of production and consumption. “The final reason for the need to photograph everything lies in the very logic of consumption itself. To consume means to burn, to use up – and, therefore, to need to be replenished” (Sontag, 1977, 179).

Owing to the fact that information is endlessly produced and presented, contemporary society seeks qualification of the photographic image in the form of supplemental information, as society is no longer satisfied with the presentation of a single static image alone. Driven forward by the capitalist market, the current age of photography meets these expectations to record “metadata”, a form of supplementary information, which is externally appended to the photographic image. This includes camera controls: aperture, shutter speed, lens, file type, GPS location, year, day, and time down to the exact second. Each of which is now appended to each image's metadata. Data itself now also exists as a commodity.

I propose photography could potentially gain increased legitimacy through the combined presentation of image and a form of data as a response to the significant demand for the production and consumption of data in the present age. This research aims to devise a mechanism or structure to analyse the relationship between the photographic image and the notion of supplemental data. Specifically by looking towards producing a concept of “photographic metadata” that may bestow upon the photograph another layer of information or data.

Notions of Metadata

Meta is said to have derived from the Greek μετά = "after", "beyond" or "adjacent", in this reading meta speaks of an abstraction, an element that is derived from or denotes a connection to separate entity. Given this account, meta and therefore metadata stems from a referral. Metadata is always designated by some other or external phenomena. At the same time, metadata does not exist by its own volition; metadata must always occupy a supplementary role.

In a response to the obscurity found within the photographic image remarked by Sontag, Sekula, Burgin, et al. perhaps the notion of metadata creates new possibilities to add new dimensions to photographic dialogue. When metadata sits solely as secondary information, it operates within a symbiotic relationship to the photographic image. Metadata is defined as "that which provides information about other data", the information directly related to, and supplement to, the photographic image. Using this mechanism, the photographic image is, theoretically operating as a type of data itself. Geoffrey Batchen identifies this relationship between the photograph and the transformation of matter into information, "digitised for the purpose of making predictive judgements that fix them in space and time" (Batchen, 305, 1999).

It is possible to identify two distinct modes within: as supplement and allocation. These two modes obliquely imply a notion of hierarchy. As what the image is supplemented with, or where metadata is allocated to, ultimately provides a means to collate or construct a set of images guided by a descriptive key. Structured by the appended hierarchy of metadata, the image is instantly categorisable against a specific set of scales or values offered by metadata. In this sense metadata exists as both an additional form of content or an entity, but also as a means to process, or to calculate. Ian Walker discusses a position that engages in a wider observation of photographic discourse, in which he argues that the methods and means of photography may be invigorated through an appending of multiple images, text or other informational content.

> The over insistence on the authority of the single image has been one of the major problems in the development of photography, either as an art form in its own right, or as a reliable means of recording reality (Walker, 128, 1999).

The passive photographic dialogue does not set out to identify specifically which content sits within the category of metadata. The presentation of information within society and what is considered communication is constructed through the active participation of the viewer's gaze upon the photographic surface. Photography currently waivers within this contemporary paradox: while the photographic image is visually descriptive, it is, however, circumstantially and communicatively ambiguous. Society has theorised the photograph as both data and dialogue. Interpretation of photographs is thoroughly embedded within cultural practice. The notion of metadata acts as a means to append extended possibility of meaning, or to supplement the photographic image in such a way that the viewer might be able to gain further insights from the dialogue presented in the photographic image.

Chapter Two:
Image and The notion of information

Between text and pictures

From photography's beginnings it sought identification or clarity within the combination of a written text and the photographic image. The title or notion of a textual description existed at the very origin of photography, exemplified by Nicéphore Niépce's photograph "*View from the Window at Le Gras*" (1826), is widely considered as the first successful permanent photographic image. What is interesting in this case is the very fact that the image which was heralded as a device to accurately mirror reality, still required quantification through the appendage of the aforementioned title. The combination of these two descriptive forms allowed the earliest practitioners to clarify the content within the photographic image.

> The photograph communicates by means of its association with some hidden, or implicit text; it is this text, or system of hidden linguistic propositions, that carries the photograph into the domain of readability (Sekula, 1982, 82).

Where structures, hierarchies, or lexicons are used within textual communication, it can be said that while certain systems exist for the reading of images, they differ significantly from that of textual communication. Punctuation for the photographic image do not consist of marks, or symbols indicating the method to read the photographic image. Umberto Eco notes that photographic communication does not exist as a homogenous system, that photographic transfer occurs within a plurality of codes (Eco, 1982). Images are static and impassive, the image has no opinion, or agenda; the image does not, and cannot, ask questions or make statements, an image exists as a means to effect dialogue. Text however, always has an opinion, it questions, and supposes. The embedded marks and symbols effect the viewers engagement with the piece.

A: Do you have a pet?
B: Yes, I have a pet at home
A: What kind of pet
B: I have a Dog.
A: Oh, What colour is it
B: Its brown and white
A: What kind?
B: St. Bernard
A: How old is it?
B: It's four years
A: Why didn't you say you have a full grown brown and white St. Bernard as a pet in the first place. (Griffin, 2003, 29)

In the above listed example, two people run through a lengthy verbal (read: linguistic or textual) communication trying to ascertain what type of pet owner B has. This process, while highly detailed, is fraught with misinformation and misinterpretation, to which the questioner B finally states; Why didn't you say you have a full grown brown and white St. Bernard as a pet in the first place? This textual conversation highlights exactly why images while different from textual information, but maintain a highly important role in society's communications. B could have shown an image to A, and a clear transfer of a kind would be instantly established. However, upon clarification, yet another set of questions would arise, if the image depicted a puppy, to which A might say.... what does he look like now?, and the previous process would be inclined to collapse into a repeat of the example as outlined by Griffin. Both text and images are inadequate in the above circumstance, however, if combined in such a way, textual information can pose the question, and the image could answer it, or equally the inverse is also applicable, where the image could ask the questions and the role of text would be to supply grounding or a response to the question posed.

The installation of Hans Haacke's “Manhattan Real Estate Holdings: A Real Time System” (Fig. 1.1) takes advantage of both text and image. While engaging in a formal aesthetic, Haake presents his work as both highly informative and as highly authoritative. As Sekula states, “photography looks for authority in accumulation” (Sekula, 1999). This can be seen in Haacke’s methodology which specifically includes the collection of public records as a part of his work. Identifying that there are interpretive gains to be made within the combined presentation of text and image, Haacke creates an almost investigative display collating records detailing: owners, previous owners, landlords, mortgages, business transactions, and dates in this work. Constructing an incriminating work through the documentation of a series of underground property dealings, the images and text work in symbiosis. The image supplies a visual node at which the viewer can identify the exact buildings described, and the text provides a highly specific narrative.

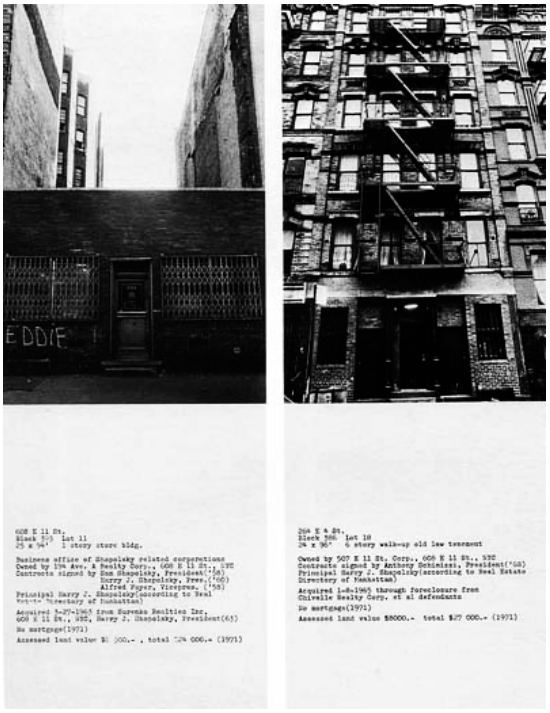
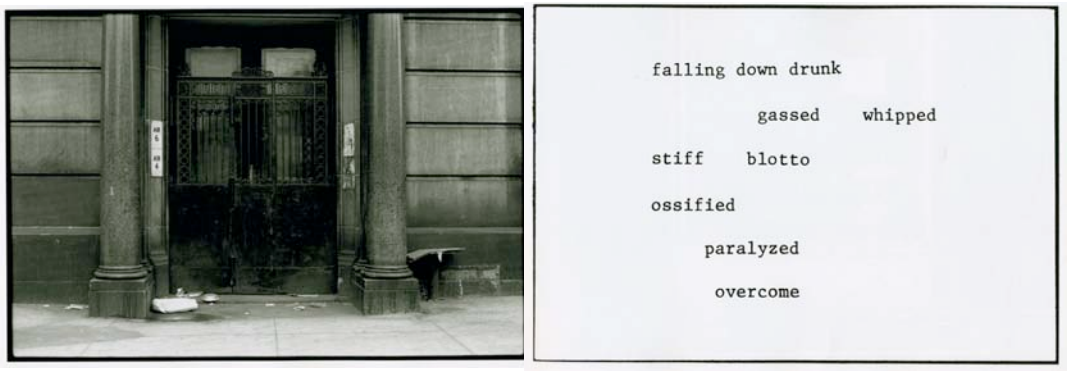


Fig. 1.1
Haans Haacke, *Manhattan Real Estate Holdings: A Real Time System*, 1971

Martha Rosler's *"The Bowery in Two Inadequate Descriptive Systems"* (Fig. 1.2) invites the viewer to confront the space between both text and image. In an engagement with the social issues of homelessness and alcoholism, the documentary of the Bowery collects sites and scenes of the urban American homeless. In this work each photographic image is supplied with an printed text consisting of random phrases that could be associated with the Bowery. The critical feature of Rosler's work lies in the fact that she never produces photographic portraits, or uses the word homeless within the entirety of the work. An understanding of the context is only ever implied partly through the photographs, and partly through the appended text, however, never completely within either. Although the photograph has been used in the production and exploration of many artists' concepts, in many cases "obscurity" or "subjectivity" become integral aspects of the work. Equally, the view of the photograph as an unequivocal truth has been adopted for use within artistic practice. In Rosler's work however, she describes both photography and text as equally inadequate means of communication (Rosler, 2006). This position effects an analysis of the relationship between the notion of appended metadata, and equally provides a position from which to further engage in critique of the communicative systems within photography.

Fig. 1.2



Martha Rosler, *The Bowery in Two Inadequate Descriptive Systems*, 1974-5

On the other hand, the artist Walid Raad uses photography as a form of data, by appending such forms of contextualisation as titles, captions or descriptions. In this instance Raad's work operates in direct contrast to the work of Haacke. Raad created the "Atlas Group" to systematise and present a view of the Lebanese Civil Wars, collecting and collating found images from both official and domestic sources. It is also highly significant that he created his own fictional materials, narratives, and personae from within this archive. The constructed works rely on their relationship as data or information as a structure to carry meaning. Within the work *"Notebook Volume 38: already Been in a lake of Fire, PL 57-58 (1991)"* (Fig. 1.3) vehicles are arranged seemingly randomly but, upon closer inspection, are categorised according to a highly detailed manner. Year, Make, Colour, Date, a time, and location are so specific the entire presentation alludes to a much larger collection of documents. This allows the images or sets of images a sense of authority when framed within Sekula's notion of authority through accumulation.

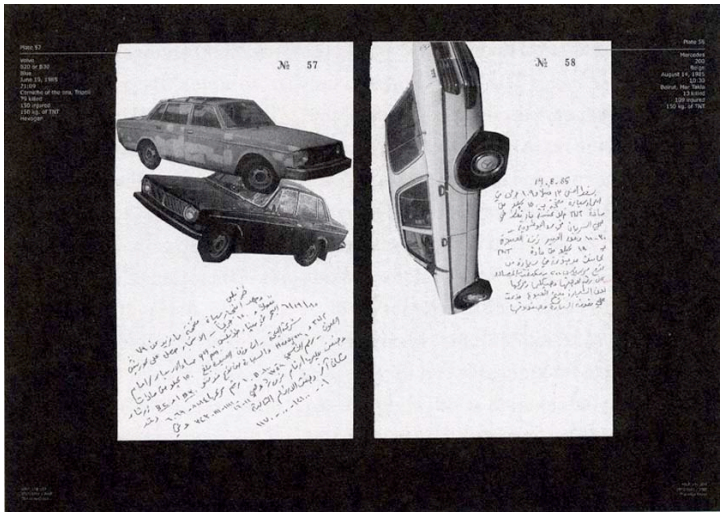


Fig 1.3
Walid Raad, *Notebook Volume 38: Already Been In A Lake Of Fire,* Plates 59-60, 1991.

Responding to these investigations, I began the collation of site specific data (Fig. 1.5) to append to the photographic image combining the use of image and text acts a means of building a visual-textual communication where photography operates in a paired, or appended situation: a title, an author or a dimensions might be documented, also captions or subtitles occur. Reinterpreting or reconstructing the appended volume or metadata, acts as a mechanism to literally attempt a second capture. A "reinscribing" of the photographic image also denotes that while the photograph is at times vague or uncertain, it is still ultimately an effective communicative system: the subject in a photograph at that specific location at that specific time existed. However, there are layers of complexities and meanings, which are always defined by constructed cultural boundary conditions, however through metadata these boundaries between image and appendage can be seen to dissolve into one another.

Data as an aesthetic object

Humans interface with society through systems of mechanisation, can be defined as mass structures of categorisation, and systemisation. Modernist Architect Le Corbusier made attempts to define the modern world in a neo-Cartesian era based upon a system of numbers and correct filing.

> "(He) who interacts with the world around him through mechanical implements that function as extensions for the body (furniture, filing cabinets, the telephone etc,...the optimum mechanism to present visualisation of the modern world was through the use of precise documentation and ordering of all collections contained within the modern museum. Let us put together a museum of our own day with objects of our own day... We will put in a filing cabinet with its printed index cards, tabulated, numbered, perforated and indented, which will show that in the twentieth century we have learnt to classify. (Le Corbusier, 1925)

To locate my investigations within contemporary practice, I have identified various methodologies in which practising artists have engaged with the systemisation of material and data. On Kawara's work in the *"Today Series"* (Fig. 1.4) engages with the supplemental notion of metadata. In this work, Kawara constructs a record of the passing of time under a rigorous set of operations. In order to gain a place within the *"Today Series"*, each painting must be completed in a single day. If the work takes longer than the prescribed 24 hours, it will be destroyed, never to be present within the public arena. The works contain only the year, month, and day the work is to be started and subsequently completed on. In addition to this, the works must also be written in the native language of the country Kawara was

located. Kawara makes additions to this informational system, which may consist of a pages from that days news paper. Chiong comments on a journal that is appended to the works, in which Kawara catalogues every paintings size, colour and location. Identifying that the journal operates like photographic captions or “Subtitles” (Choing, 1999), this work responds to the notion of the supplemental metadata, where the painted portion of the work is supported by both the journal, and newspaper clippings collected on that day.

Fig 1.4
On Kawara, *Today series*, 1973

Artists have long had engagement with systemisation of data as a vehicle for creative investigation. In Nobuyoshi Araki's *“Araki Nobuyoshi no Uso Nikki (Nobuyoshi Araki's Fake Diary)”* a selection of photographs display dates from the period 1st of April 1979 to 5th of May 1992. The contradiction here lies in the fact that the book was published in 1980, in which the dates on the photographs are supposedly some twelve years into the future. To produce this work, Araki obtained an early model Minolta Hi-Matic with manually controllable date imprinting function. In this work Araki rewrites the course of activities during this time by creating his own set of dates, which can be re-read as the control of data. The artist may be able to regain control of the flow of time to recreate a new narrative. If it were not for the date embedded into the image surface, and its eventual corruption, these works would not have been as effective in conveying the artists intention. In this instance specifically, Araki relies on the photographic mechanism as objective and a general view of data as truthful.

In Araki's work we can see how interpretation can be guided through the combined use of both photographic image and the systemisation of information. In my initial investigations, the work approaches communication by means of an appended textual instances to a series of photographic images. The work makes an attempt to visualise the vast structures of communication required within the construction process. Collating a selection of architectural documents in a series (Fig. 1.5), this composition feeds into the notion that society seeks ever increasing volumes of data to authenticate or qualify the photographic image. My investigation of this site attempts the systemisation of data through the creation of an archive through the capture and acquisition of documents, spaces and artefacts.

In situ: Meaning in place

> ...mustn't the photographer who is unable to read his own pictures be no less deemed an illiterate? Isn't inscription bound to become the most essential component of the photograph? (Benjamin, 1971, 295).

Within my project, investigation lies in the documentation of elements that consume or are consumed on the site. This site is seeking qualification within an environmental sustainability program, requiring a process in which the entire energy and material consumption of the building will be recorded, vetted and finally allocated a performance value. Physical material is converted into data in the form of lists; debris, bedrock, soil, concrete, timber, paper, plastic, and so on. Material and it's consequential data have to be accounted for and documented, audited against the inevitable inventory or growing archive their quantification creates.

However, where these material objects exchange their physical existence for representation, and are rendered as a set of textual statistics, cannot *"Data assembly"* (Fig. 1.5, 1.6, 1.7) operate as a form of metadata? Can rows of numbers, and lines of text act as a that supplementary, and enhancing appendage to the photographic image? Can this form of representation satiate a society so desperately engaged in the mass production and consumption of information? Can the hierarchy and commodification of data suffice, and substitute the ambiguity of the photographic image?

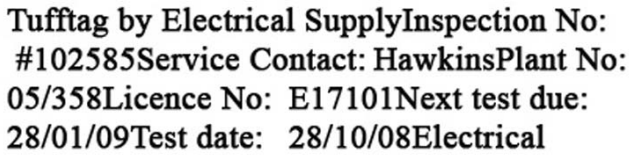


Fig 1.5
Mizuho Nishioka, *Data assembly: #102585,* 2009

07/2009	Glass	45.91kg	Southern Landfill
07/2009	Plastic	45.91kg	Full Cycle Recycling
07/2009	Paper	1030.00kg	Full Cycle Recycling
07/2009	Metal	879.32kg	Woods Waste
07/2009	Mixed Timber	3726.74kg	Cairns Bins
07/2009	Tiles/ Concrete	287.51kg	Woods Waste
07/2009	Untreated Timber	1557.01kg	Cairns Bins
07/2009	Scrap Metal	2510.00kg	Wellington Scrap Metal
07/2009	Untreated timber	1237.47kg	Personal
07/2009	Landfill	1525.47kg	TNT Landfill
07/2009	Green Waste	179.82kg	Southern Landfill
08/2009	Glass	56.28kg	Southern Landfill
08/2009	Plastic	771.84kg	Full Cycle Recycling
08/2009	Paper	562.80kg	Full Cycle Recycling
08/2009	Clean Soil	1657.85kg	Woods Waste
08/2009	Metal	1196.35kg	Woods Waste
08/2009	Mixed Timber	6460.94kg	Cairns Bins
08/2009	Concrete	765.51kg	Woods Waste
08/2009	Concrete/ Soil/ Rubble	1651.65kg	TNT Landfill
08/2009	Untreated Timber	1557.01kg	Cairns Bins
08/2009	Scrap Metal	2510.00kg	Wellington Scrap Metal
08/2009	Site untreated timber	1237.47kg	Personal
08/2009	Landfill	1525.47kg	TNT Landfill
08/2009	Green Waste	179.82kg	Southern Landfill
08/2009	Tiles/ Concrete Bricks	100.51kg	Woods Waste
08/2009	Untreated Timber	1148.11kg	Cairns Bins
08/2009	Scrap Metal	1810.00kg	Wellington Scrap Metal
08/2009	Landfill	236215kg	TNT Landfill
08/2009	Green Waste	179.82kg	Southern Landfill
09/2009	Glass	65.28kg	Southern Landfill
09/2009	Plastic	1198.94kg	Full Cycle Recycling
09/2009	Paper	102.80kg	Full Cycle Recycling
09/2009	Clean Soil	1657.85kg	Woods Waste
09/2009	Metal	1529.75kg	Woods Waste
09/2009	Mixed Timber	11411.94kg	Cairns Bins
09/2009	Concrete	1465.51kg	Woods Waste
09/2009	Concrete/ Soil/ Rubble	1651.65kg	TNT Landfill
09/2009	Polystyrene	77.35kg	Woods Waste
09/2009	Untreated Timber	1557.01kg	Cairns Bins
09/2009	Scrap Metal	2510.00kg	Wellington Scrap Metal
09/2009	Site untreated timber	1237.47kg	Personal
09/2009	Landfill	1525.47kg	TNT Landfill
09/2009	Green Waste	179.82kg	Southern Landfill
09/2009	Tiles/ Concrete Bricks	100.51kg	Woods Waste
09/2009	Untreated Timber	1148.11kg	Cairns Bins
09/2009	Scrap Metal	1810.00kg	Wellington Scrap Metal
09/2009	Site Fill	4933.33kg	Willis Central
09/2009	Landfill	3189.15kg	TNT Landfill
09/2009	Green Waste	370.82kg	Southern Landfill

Fig 1.6.
Mizuho Nishioka, *Data assembly: percentage calculation i*, 2009

01/07/2009	5451	7.5m^3	1740kg	-	-	-	-	100%
07/07/2009	5453	7.5m^3	2000kg	-	-	-	-	8%
24/07/2009	5456	7.5m^3	2340kg		-	-	-	100%
29/07/2009	5458	7.5m^3	2500kg		-	-	-	100%
03/07/2009	5452	-	180kg	20%	-	5%	5%	70%
10/07/2009	-	-	180kg	20%	-	5%	5%	70%
15/07/2009	5454	-	180kg	20%	-	5%	5%	70%
22/07/2009	5455	-	180kg	20%	-	5%	5%	70%
29/07/2009	5457	-	180kg	20%	-	5%	5%	70%
03/07/2009	-	-	80kg	-	-	-	-	100%
10/07/2009	-	-	80kg	-	-	-	-	100%
15/07/2009	5454	-	80kg	-	-	-	-	100%
22/07/2009	5455	-	80kg	-	-	-	-	100%
27/07/2009	5457	-	80kg	-	-	-	-	100%
04/08/2009	5459	-	80kg	-	-	-	-	100%
04/08/2009	5459	-	180kg	25%	-	5%	5%	65%
08/08/2009	5461	7.5m^3	2340kg	-	-	-	31%	59%
10/08/2009	5460	7.5m^3	2160kg	-	-	-	56%	31%
10/08/2009	5460	3.6m^3	2960kg	-	-	8%	56%	10%
10/08/2009	5462	-	80kg		-	-	-	100%
10/08/2009	5462	-	180kg	-	-	-	100%	
13/08/2009	5463	7.5m^3	3340kg	9%	8%	9%	-	-
18/08/2009	5465	-	180kg	25%	-	9%	10%	56%
24/08/2009	5464	7.5m^3	1840kg	-	-	-	-	12%
25/08/2009	5466	-	180kg	28%	-	9%	13%	50%
28/08/2009	5467	7.5	2560kg	-	-	-	-	45%

Fig 1.7.
Mizuho Nishioka, *Data assembly: percentage calculation ii*, 2009

Chapter Three:
Hierarchy, systematisation and the production of meaning

Since society has needed to categorise or systemise any collection of information, the catalogue, index, or archive have operated as forms of hierarchical systematisation. Within these structures metadata plays a role; metadata offers an expectation of an appended datasource. This project ventures the appropriation and construction of metadata, the *"Excavations"* series challenges the perceptions of how to approach reading the photographic image. Sets of appended images exist as discrete ecologies. This project questions from where does one allocate meaning: the photograph, or metadata. And equally what constitutes the identification of an object as photographic and what construction manifests an interpretation as metadata.

Metadata as a structure to order the archive

The practice of photography, and society in general, could be conceived as continually feeding the notion of a greater informational archive; the act of producing the archive contributes as much to an event as recording it. Photography's ability to transcend time is "inherently" locked into its fabrication, this, coupled with the archives system of classification, invite the photographer to evolve new meaning through a collection and association of images. John Tagg refers to photography as "A vast and repetitive archive of images is accumulated in which the smallest deviations may be noted, classified and filed" (Tagg, 1988, 64). The notion that all archives, ultimately aim for acquisition, and that the archive looks for authority through a scale in numbers; the archive is a physical and theoretical manifestation of the mass recorded moment (Sekula, 1999). Historically the archive exists as a methodology to systematise the presentation of images and information. An archive is defined as both the collection of records, and the location in which these records are collected. The photographic archive valued for its objectivity, and its ability to illustrate objects of drastically different sizes next to one another for comparison.

The nineteenth Century brought about the first photographic archives. Photography was a means to communicate to a captive public the far reaching growth of colonisation during the Age of Expansion. Photography was "verification", to be brought back to Europe from the furtherest extents of the empires (Maxwell, 1999).

Photography has, since its earliest beginnings, directed its gaze across to distant cultures and locations. Collecting images for classification in order to communicate that which existed beyond national or continental borders. As Susan Sontag notes “with museums playing the lead role in shaping photographic past” (Sontag, 1977, 28). Noting that museology had a leading role in co-ordinating and evolving of the archive, science, psychology, and the law also engaged the use of the archive to facilitate their analysis of society (Sekula, 1989; Sontag, 1977).

Research undertaken by Alphonse Bertillion set to define criminals through the use of the photographic archive (Fig.1.8). His project based on visual statistics, used the precision of photography, the classifying and comparative system of the archive to create the first studies of anthropometry. On the other hand, significant in history for developing the first systematic method of studying heredity, Francis Galton, through the use of the archive, was making composite image to project the face of society (Sekula, 1989; Frosh, 2003). This photographic manipulation, created through the exposure of multiple portraits upon a single negative, created approximations within the study of physiognomy (Fig. 1.9). Although Galton and Bertillion were both working with the photographic archive, they were approaching it from quite different positions. Bertillion used “the photograph in the archive”, on the other hand, Galton searched for “the archive in the photograph” (Sekula, 1986).The example brought to light by Bertillion and Galton furthers the notion that the photographic archive is able to perform differently under specific circumstance. Karin Becker remarks that “An archive is built on a classification system, which, reflects the research interests and ideals that were current at the time the archive was founded” (Becker, 1992, 05). In the instance of the “Bertillion mode”, this is to provide a system and catalogue of separate components that work in comparison or association. The second or “Galton mode” fuses the collation of data to create a new form of information. Works formed in this manner could be phrased as re-associative, or appropriative. Through further investigation of the photographic archive, a recent mode of practice has evolved, and extended the possibility of the archive.

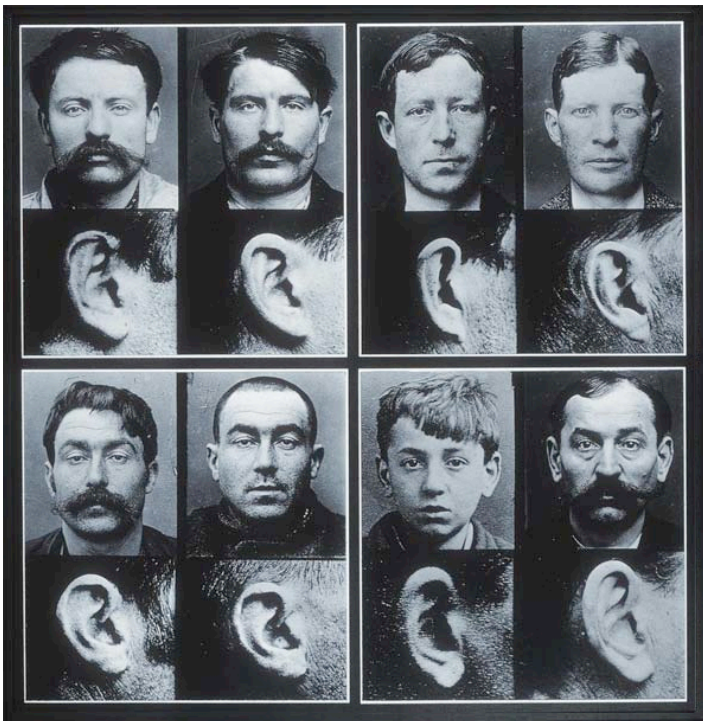


Fig 1.8
Alphonse Bertillion, *Four examples of usefulness of ears for identification over other changeable attributes*, 1887

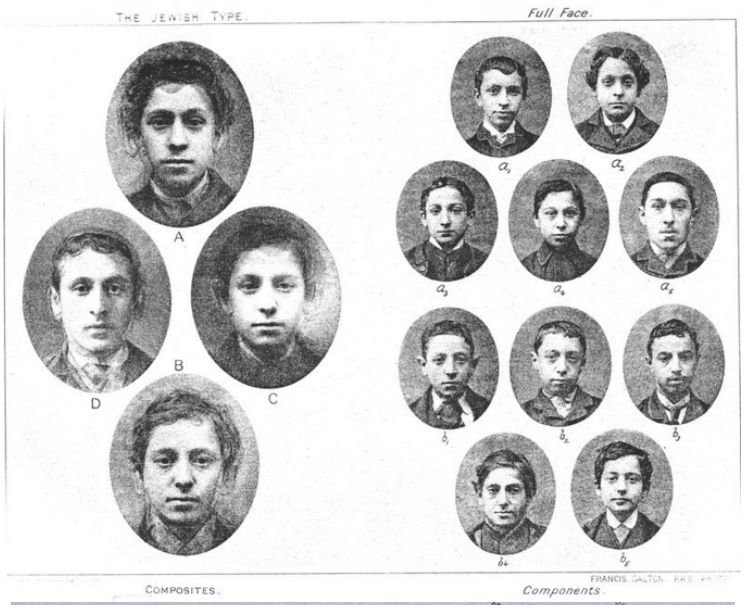


Fig 1.9
Sir Francis Galton, *(t) Composite portraits. (b) Composite portraits of The Jewish type.*1885

To reconsider the nature of photography, as well as our relationship to information in general, contemporary photography has accessed the archive as relevant site to investigate photography's role as a tool for collecting data and exploration of ideas. During the preceding century, a vast collection of photographic images has accumulated. Photographers such as August

Sander, Berndt Becher and Hiller Becher, and Olafur Eliasson began to produce works, that could be seen as adhering to the idea associated with the "Bertillion model". Developing meaning as informed from the appropriation of archive material, in a discussion presented by Michael Glasmeier and Christoph Lange, the notion of the archive is thus more or less visibly present in the history of art (Glasmeier & Lange, 2005, 130). Both in terms of the categorisation of art and artefacts, history shows that artists such as Joachim Schmid, Hannah Höck and Peter Piller have formed a method of working based entirely on this position. Through singularly borrowing from the "photography in archive" method it is possible to evolve understanding from representing existing archival material.

The secondary archive model "Galton Mode" is more relevant to my own work, where the archive operates as a mechanism to create the composite. This appropriative or inducting model allows for the combining of unconventional resources to communicate meaning through one composite work. Hiroshi Sugimoto's *"Time's Arrow"* (Fig.1.10) uses this notion of "archive in photography". Drawing photographs from his own archive, Sugimoto appends or embeds his work within three dimensional artefacts creating hybrid archival compositions, and ultimately new theoretical constructs within photographic communication. *"Time's Arrow"* explores the temporal relationship between perception and representation. The relative certainty of the ocean is defined by the the perpetual presence of water or seas on earth since ancient history. This work allows the viewer to engage with the notion of passing time on several layers: the relationship between the viewer and the 13th century artefact, between Sugimoto's earlier *"Seascape"* (1980), the perpetual and archaic presence of the ocean, and *"Times's Arrow"* (1987) which embeds all of these temporalities within a single work. The consequence of engaging the use of the archive allowed Sugimoto to create multifaceted dialogue in a space somewhere between, the photograph, the archive, and the viewer.

John Tagg refers to photography as "A vast and repetitive archive of images accumulated in which the smallest deviations may be noted, classified and filed" (Tagg, 1988, 64). Alan Sekula notes "The notion that all archives, ultimately aim for acquisition, and that the archive looks for authority through a scale in numbers, the archive is the physical and theoretical manifestation of mass recorded moment" (Sekula, 1999). Photography in

Fig 1.10
Hiroshi Sugimoto. *Time's Arrow.* 1987. (Seascape, 1980, reliquary fragment, Kamakura Period, 13th century) Gelatine silver paint, gilded bronze.

Tagg's estimation, locates the photographic image within a greater archive of visual culture, and is potentially classifiable through the notion of metadata. Within this framework, both photography and archive are also creative systems, even more than recording devices. They have the ability to restore or instil new meaning. Derrida states: "what is no longer archived in the same way is no longer lived in the same way" (Derrida, 1995, 17). Seen within the contextual grounding of the archive, the photograph is inclined to undertake shifts in its meaning. These shifts in meaning are brought about through the context of when or where an image is read, and equally what an image is combined with. The image within the photographic archive renders itself subject to a continual re-interpretation due to the archive's accessibility, expandability, and adaptability.

Photography and mechanical externalisation of data

Metadata operates as a key participant to structure or categorise the archive; dates, GPS, colour, material, whatever the archive requests can be quantified and embedded within the structure of the archive. Existing as an invisibly appended veneer, metadata does not typically exist of its own accord, but instead always in a supporting role. Although it can be stated that metadata inhabits only memory cards, camera software, or computer architecture,

there resides a long and complex relationship between photography and computing. As noted by Geoffrey Batchen the parallel in the origins of both photography and computing can be identified in the basic currency of computing as "data" or the representation of information. Noting that the computer in its most basic format is a procedure that possesses the ability to render content into calculable and quantifiable digits. Batchen comments: "Right from the beginning, then, we find the history of computing associated with the transformation of human beings into data" (Batchen, 1998, 305). As identified earlier by Chomsky, this argument draws a clear connection to the aligning the physical works to the production and consumption of information. Batchen comments that the transformation of a subject into data is the act of creating a representation or reference, finally stating that the act of conversion to data is to create the photograph itself (Batchen, 1998).

The act of "digitising" refers to the capture of content, and subsequent transformation of the content into another form, i.e. data. Where the computer stores information in the form of binary code embedded into a computer disk, photography too, possesses a similar ability; the ability to capture solid matter and to convert it into a two dimensional format: the photographic image. In this case there are indeed conceptual parallels between the operations in computing and the act of photography. Citing a position that the photograph itself may lead a double existence, initially as a device to record and transfer information (allowing the transfer of data) and secondly the ability to manifest data itself. Data is conceived as having a value when it is connected (appended) or contextualised meaningfully to something else (Taniguchi, 2007). Data without contextualisation is just as ambiguous as the photographic image without contextualisation.

Victor Burgin's work *"Performative/ Narrative"* (Fig.1.11) presents a series of almost identical images that exist in two opposing conditions; a drawer open or closed, a desk lamp turned on or off, a file folder open or closed. This work, however, could be interpreted as investigating the relation between image and data. Burgin's work presents an argument on the relationship between his work and notions of data or data processing. Ann Goldstein and Ann Rorimer describe the work as "a series of different photographs of permutations of binary states" (Goldstein and Rorimer,

1995, 94) and furthermore, Graham Coulter-Smith states “Binary logic lies at the heart of computerised information processing ...Burnham's analysis of post-object art in terms of a cybernetic conception of systems” (Coulter-Smith, 2008).

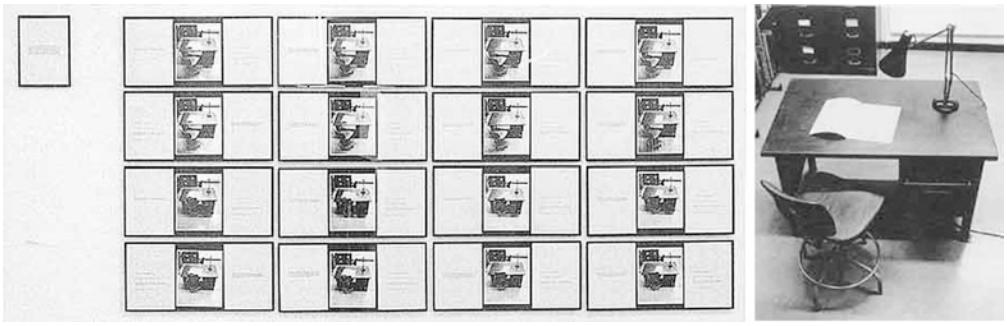


Fig 1.11
Victor Burgin, *Performative/ Narrative*, 1971

My methodology within the early stages of *“Excavations”*, consisted of collecting a variety of data forms including; email, newspaper articles, and subsequently the quantification of materials, or *“Data assembly”* (Fig. 1.5, 1.6, 1.7) as a means to build a quantitive contextualisation of the images I had taken on site (Fig. 1.12). Initial compositions conducted investigations as to how, and what, could be appended to the photographic image. Benjamin comments that the “textual inscription” is an imperative to the descriptive qualification to the photographic image.

Fig 1.12
Mizuho Nishioka, *Untitled*, 2009

The image calls for a form of quantification that Sekula describes as “the need for an external matrix of suppositions”(Sekula, 1982, 85). Where textual communications exist and make possible the transfer of certain kinds of knowledge, the systems, hierarchies, and lexicons of textual communication offer understanding by an abstract means of symbols and marks. This system of communication is bound within a cultural understanding and expectation of textual communications as defined by preconceived methods for the reading of text. The previous discussion raises the theory that textual communication is however, another “inadequate descriptive system”. This is somewhat inaccurate as the critical issue identified here, locates an expectation of data as a means to “complete” photographic discourse. In opposition to the collection and appending as a means to complete the photographic image, I wanted to engage the notion of metadata to construct a work that visualised society’s unending desire and expectation for the production and consumption of information.

Visualisation of this cyclical and self-feeding system provides the aesthetic basis for choosing to append another photographic image as a form of metadata. Previously I have identified the photographic image as a form of data, in which case photography can also operate as a form of metadata. Metadata as discussed earlier is a mode of communicating, quantifying, or structuring sets of information. In addition to this, metadata exists as a means to apply a further film of information. The creation and capture of metadata by a technological device such as the camera, further informed my methodology. Following the capture of a single photographic image, my methodology employed the collection of a single physical artefact from the construction site (Fig 1.13).

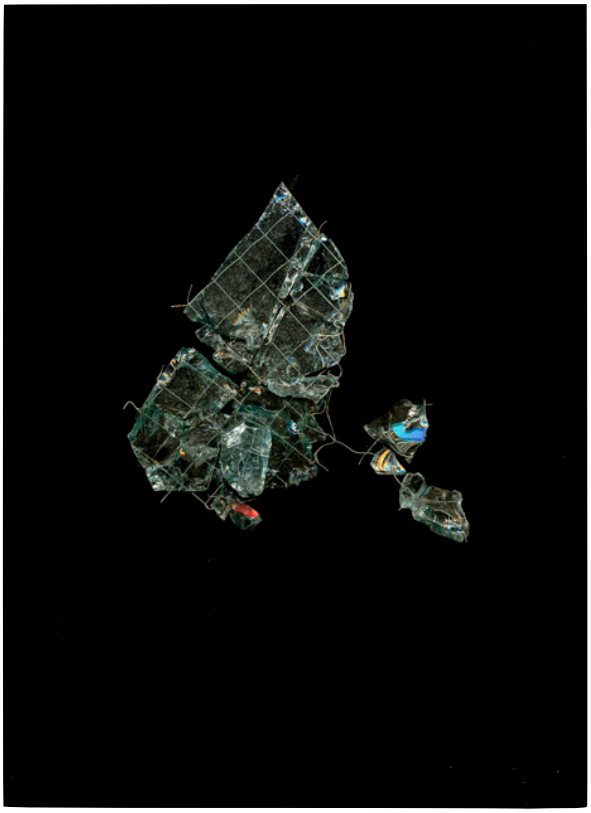
I propose the collection of the physical artefact acts as an equivalent to the notion of textual metadata. However, to align the appending physical artefacts as a form of metadata, the collected artefact requires conversion via photography to create “visual metadata”. This operation allows the photographic dialogue to continue perpetually. The endless expectation of data inevitably, and inadvertently initiates an informal archive: a steadily growing source and store of information. My reconceptualisation and engagement with the photographic image operates as a means to explore the notion of acquisition, as a response to the endless expectation of

information. Where metadata exists as a connective and supporting data set for the photographic image, the appending of "visual metadata" exists as a means to construct and engage the viewer within both a qualitative and quantitive supplementation. As an addition to this system, "visual metadata" allows for an open structure in their interpretation, appendage exists as a point to renegotiate the relation and occurrence of meaning. Simultaneously the aforementioned conceptualisation of the photographic image and metadata appear distinct, however, both exist within an interchangeable condition. What we can perceive from this interchangeability is the complex nature in the authoring of dialogue within the photographic image. The photographic image is at once a form of information, and an object. Both of which adhere to their individual commodification as "data".

Fig 1.13
Mizuho Nishioka, *Untitled*,
2009

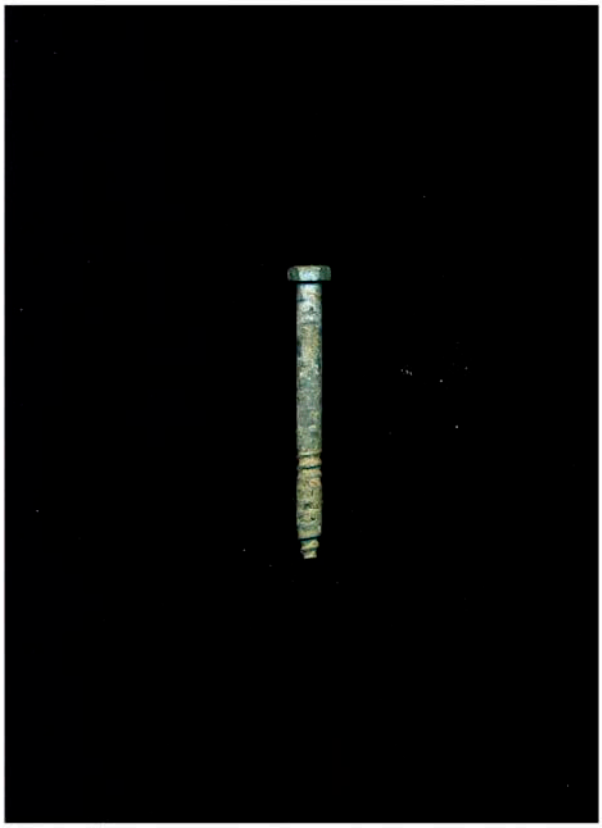
Where "data" exists as an autonomous entity itself, this creates a mechanism that exposes the frailty of photographic discourse. The photographic image seeks for appendage or supplementation, visual communication operates as an invitation, by asking the viewing participant to reengage, and to look again, to consider. Description poses a question for analysis, not simply in terms of the complexity of its undertaking, but in terms of its validity. The image itself does not constitute meaning. Meaning is constructed. Constructed by the viewer at the behest of the presentation of any image.

Chapter Four:
Index of creative works



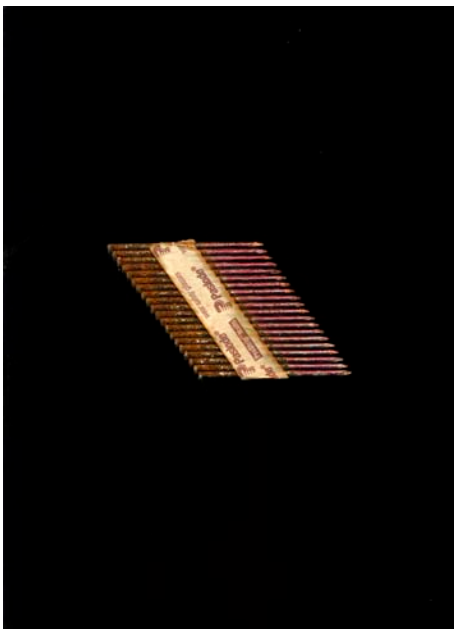
Excavations_01,
594 × 841mm,
2009

Excavations_02,
594 × 841mm,
2009

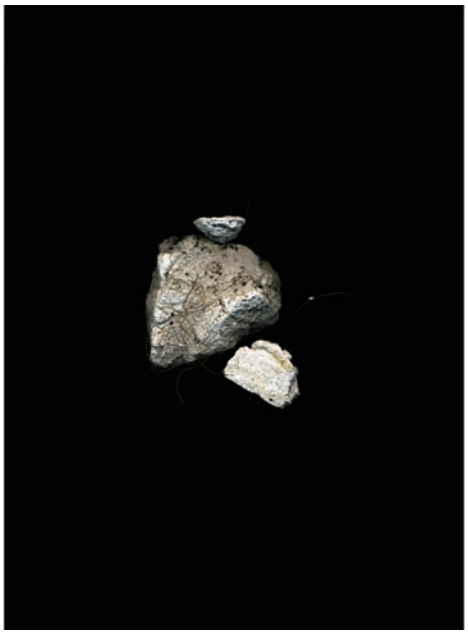


Excavations_03,
594 × 841mm,
2009

Excavations_04,
594 × 841mm,
2009



Excavations_05,
1189 × 841mm, 594 × 841mm
2009



Excavation_06,
1189 × 841mm, 594 × 841mm,
2009

Excavation_07,
1005 × 13501mm,
2009

Chapter Five:
Archive

Untitled #1, 2009

Untitled #2, 2009

Untitled #3, 2009

Untitled #4, 2009

Untitled #5, 2009

Untitled #6, 2009

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