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**Haldar, Piyel. (2008) *Watermarks*
*Parallax 14 (4), (2008): 101-113.***

This is an author-produced version of a paper published in *Parallax* (ISSN 1353-4645). This version has not been peer-reviewed and does not include the final publisher proof corrections, published layout or pagination.

The final definitive version of this paper has been published in *Parallax 14 (4)*, 2008 by Taylor Francis (Routledge) publications:

<http://www.tandf.co.uk/journals/titles/13534645.asp>

DOI: <http://dx.doi.org/10.1080/13534640802416892>

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Citation for this version:

Haldar, Piyel. (2008) *Watermarks*

London: Birkbeck ePrints. Available at: <http://eprints.bbk.ac.uk/868>

Citation for the publisher's version:

Haldar, Piyel. (2008) *Watermarks*

Parallax 14 (4): 103-113.

<http://eprints.bbk.ac.uk>

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Watermarks

By

Piyel Haldar¹

Object or detail

In his book the *Lost Language of Symbolism* (1912), Harold Bayley draws attention to the initial use and mystical significance of watermarks. These strange esoteric designs somehow inserted into the very fabric of paper, vaguely visible when held to light, constitute an uncharted (almost hidden) history of religious epistolary forms. From the thirteenth century (the earliest record dates from 1282) watermarks, paper-marks, or 'thought fossils' were used to carry out secret messages between members of heretical sects such as Cathari, Templars, Rosicrucians or pre-reformation Protestants. Even after they were notionally exterminated under the edicts of the thirteenth century papacy, Cathari watermarks continued to be used as a virtually undetectable or indecipherable form of communication (the mystical guild of paper-crafting was a stock trade of the Cathari).

Some of these Gnostic symbols are now obvious and easy to decrypt; pictograms of the initials 'RM' signified the *rex mundi* (an epithet peculiar to the Rosicrucian God); an unicorn munching a *fleur de lys* emblematised the moral purity of puritan sects such as cathari; the *fleur de lys* on its own represented the trinity, or christ of light (*lys* = *lux*); a dolphin signified the province of Dauphiney, headquarters of the Vaudois (one of the French heretic puritan sects). Some of these symbols represent the founding political values of the sects; invectives and allegories denouncing the hierarchy of the Papacy and the Catholic Church were encrypted in a variety of pictograms and ideograms. Other symbols continue to baffle and remain indecipherable.

Bayley's amateur, yet nevertheless, majestic disquisition into printer's marks and paper marks looks far removed from, and irrelevant to, the current use of watermarks predominantly as notice of copyright. Far from propagating a secret code within an image or text – a code that can be interpreted only by the few – modern watermarks are designed to put the whole world on notice (although data contained in some digital watermarks can be used in steganography to communicate secret messages between parties). Take as an initial example, the corporate logos used by television companies (ITV, Sky, TFI etc) that are digitally embedded on their programmes. These logos both advertise that company and warn the total viewing public of ownership. Moreover, since it is impossible to remove these embedded images without destroying overall picture quality, these digitized watermarks aid detection of any unauthorised recording or broadcasting of those programmes (for example, on youtube). Modern copyright practice places more than a modicum of faith in watermarks as proof of ownership and authenticity. Difficult to erase, and at one with the very texture of the copyrightable object, they are a hyper-efficient means of providing notice of ownership and authenticity. Watermarks represent an identity with an accuracy rooted in the idea of a permanently stable descriptive medium. They hold within themselves the potential to tell an objective truth in a clear and non-erasable manner. Their efficacy rests on theoretical qualities that will be analysed in resolutely modern terms of Cartesian concepts of representative stability, clarity, technologically mediated eradication of doubt and objectivity.

The prolific use of modern forms of watermarking bears little resemblance to the esoteric objects of Bayley's inquiry. Indeed, from a modern perspective, Bayley's work might be regarded as essential reading only for students of the secret traditions of Symbolic theology and Gnostic mysticism for whom the history of heresy is conspicuous and for whom the search for some key is crucial to unlocking the hidden wisdom, the *noble savoir*, of cosmic ordination.² No such key to cosmic understanding would seem to pervade the utilitarian codes of copyright regulation (needless to say perhaps, neither will such a key be found in this short essay). Nevertheless, the claim pursued here is that something of the mystical paper-maker's signature ('paper-maker's tears' as they are sometimes called), his iconoclastic spirit, interrupts the manner in which a

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² See, for example, Frater Nedia 'Bacon's Advancement Of Learning' in *American Rosae Crucis Magazine* 1920

viewer/reader approaches a piece of work as a whole. This becomes particularly evident if the watermark is considered to be a particular detail of an overall image, recording or text. To be sure, the legal-ontological status of the watermark is contestable and caught between two different tropes. At one level, watermarks are objects in their own right. On another, they are mere supplementary details. While important as copyright notices, they are inessential to the overall appreciation of a piece of work. From this latter perspective, the use of watermarking as a feature of modern copyright regulations disrupts the very manner in which we *view* an epistemic object of inquiry. What is at stake is the manner in which copyright notices effect and control the subject's capacity of sight.

Put differently, reliance on Cartesian concepts misconstrues and underrates the empirical visual encounter with the copyrighted and watermarked object. Following a brief analysis of the Cartesian assumptions that support the use of watermarks, this paper will then focus on the watermark as a particular detail embedded in the work. This detail demands of the viewing/reading subject a particular form of sight that does not sit easily with the assumed subject of Cartesian philosophy. In this sense, a watermarked image/text is rather anatomised into its constituent parts, a process of filleting the very material of an image or document has to take place. In order to acquire meaning (and not simply in terms of ownership), it shall be argued, images have to be torn apart and rendered unstable. A form of iconoclasm is enacted under examination according to which images are defaced and destroyed in a manner that seems to contradict the modern judicial faith in images. One might argue that the mystical roots of watermarking and papercrafting operate as a subliminal reminder of more hieratically and mythically charged ways of viewing. Watermarks alert us to an underground or fallen tradition of sight initiated by details, supplements and accidents.

Epistemological assumptions

For the purposes of this argument, it is important to summarise the justifications for the use of watermarks according to broader theoretical and philosophical assumptions. What seems to emerge, perhaps surprisingly for an empirically minded institution such as the common law, is a model of imagistic and visual representation that is based on certain key traits of Cartesian modernity. These traits are best discerned when considered from the doctrinal perspective of evidence law and the use of Watermarks as proof of intellectual property rights and copyright infringement (indeed digital watermarking might be described as an ideal evidentiary form. Public-key cryptography, for example, is used in order to keep track of evidential images placed in Police custody pending a criminal trial thereby ensuring that these images do not leak out into the public domain).³ Legal questions regarding the admissibility and use of watermarks in the trial would raise few difficulties. Since 1997, when Playboy properly used watermarks in establishing ownership of copyrighted images, digital watermarks have attained prolific and highly probative force in trials between internet websites.⁴

The primary concern for the courts is to establish the image as 'real' evidence thereby distinguishing them from hearsay documents. The status of 'real' evidence attaches to objects that the law defines simply in terms of their tangibility. Physical materials implicated in a case might be examined during trial as mere objects that directly testify to some fact in issue. The possibility that an item of real evidence might be fabricated by one or other of the parties is one that might be eradicated or confirmed during the trial itself. Where its provenance is questionable, an evidential image such as a watermark, will be tendered for inspection, examination and cross-examination with supplementary proof of authenticity.

This might seem peculiar since watermarks might be considered to be hearsay statements par excellence. Watermarks are 'tongues of an unseen world.' The original statements regarding identity were made out of

³ See Wen-Chao Yang, Che-Yen Wen and Chung-Hao Chen, 'Applying Public-Key Watermarking Techniques in Forensic Imaging to Preserve the Authenticity of Evidence' in *Lecture Notes in Computer Science* Vol. 5075 (2008).

⁴ *Playboy v. Webbworld* (1997) 968 F.Spp 1171 N.D. Tex.

court.⁵ The old common law rules against the admissibility of hearsay stressed the dangers that such material might be unreliable or even manufactured.⁶ Nevertheless, watermarks overcome the usual suspicions levelled against hearsay statements since they are the result of mechanical or technological reproduction. Technology guarantees reliability to the extent that they might be regarded as direct and real media. (in traditional paper processes, the watermark image is produced by using wire, bent into shape, to vary the thickness and opacity of the paper. During this stamping process the paper is only slightly wet). Technology renders watermarks more reliable, more incontestable than any other form of copyright notice.

Given that computer images are more easily manipulated, it might be supposed that the digital revolution ushers in stronger doubts about the reliability and manufacture of the watermarks. The evidential problems posed by digital formatting have been the subject of the House of Lords Select Committee on Science and Technology.⁷ While recognising the ease with which digital images might be copied and modified, the committee concluded that evidential benefits conferred by them far outweigh any concerns over authenticity. Moreover, the technological forms of encryption render the very analysis of the digital data of which a watermark is composed highly complicated (though not impossible); “it is possible to hide the watermark within the image data with a form of encryption...the watermark can be viewed only with the appropriate decryption key.”⁸ Compliance with relevant industry standards ensure that a modified image is easily detected. The never-ending discovery of new forms of protection technology thus provides further even guarantees of accuracy.

Technology establishes the watermark upon, or within, a surface with immediacy through a mechanical, chemical or digital process. Impressions or imprints, the appropriate analogy might be the divine print upon the wax-like souls of Christian subjects. To borrow a term from Patristic theology, watermarks might be regarded as *acheiropoetic*. That is, it would be free of any mortal intervention, borne of non-human process, the product of pure scientific provenance. That is to say that such processes are ideally *mint* and free of human contact and intervention. At this level of analysis, it is assumed that technology guarantees a causal link between, (or, even an immanent fixing of) the object, ownership and proof. Indeed, digital processes attempt to further minimise the distinction between object and proof. This non-spatial differentiation between a thing and confirmation of its ownership leaves little room for doubt. It is through technology, that evidence attempts to bridge the gap between high probability and absolute certainty that characterises modern epistemology.

Again, a certain Cartesianism is inherent in this reliance upon the mimetic processes attributed to image technology. The Cartesian method of proof, of course, begins with the process of eradicating doubt. The ‘truth’ of a matter arises once we are left with clear and distinct ideas.⁹ Technology transforms an object of knowledge that is otherwise prone to the defects of probable knowledge into a clearer and more distinct representation as free from doubt as one can achieve in our limited sphere of moral certainty. In attaining what

⁵ The definition of hearsay is usually given as ‘an out of court statement (oral or otherwise) made by a person and tendered to prove the truth of its contents.’ See *Wright v Tatham* 7 Ad. & EL. 313.

⁶ The old common law rules have now been superseded by the *Criminal Justice Act* 2003 which attempts both to liberalise and codify rules regarding the admissibility of hearsay evidence in criminal trials.

⁷ House of Lords Select Committee on Science and Technology: *Fifth Report (Digital Images as Evidence)* 1998, available at www.parliament.the-stationery-office.co.uk/pa/ld199798/ldscitech/064v/st0501.htm. On the benefits of digital imagery for broader schemes such as the National Identity Register see the House of Lords Select Committee on Science and Technology (Project Iris Review) 2005: www.parliament.uk/parliamentary_committees/science_and_technology_committee/scietecfuidcard.cfm

⁸ Cap iii. HL Select Committee

⁹ The relevance to evidential reasoning of the Cartesian method of doubt is expressed by Lord Brandon in *Rhesa Shipping S.A v. Edmunds* 1985 1 WLR. For a fuller account of the influence of Cartesian methods of doubt on the common law evidence, see John D. Jackson ‘Theories of Truth Finding in Criminal Procedure: An Evolutionary Approach’ 1 *Cardozo Law Review* vol. 10, n. 3, 1988pp. 514-529. There is clearly a contradiction between doubt as the first principle of this methodology and the doctrinal presumption of innocence. However, the limits of the present paper are such as to prevent further analysis of this point.

is considered to be a high degree of probative force, the watermark as proof-object achieves a paradigmatic and privileged status among all other forms of testimony.

Finally, the doctrinal assumptions regarding the evidential use and value of images obey a certain consistency with modern philosophical principles that privileges ocular sensation. The watermark is an object, an item, and, like any item, a residue of light which has to be seen (even if the perceptual capacity of human sight is technologically or digitally augmented). Indeed, it might be added that watermarks are an object in their own right, independent of the object that they claim to prove. They have their own protected status. Articles 11 and 12 of the WIPO Copyright Treaty 1996, for example, prohibits the removal of digital signatures under international law. The case of *Gregson v Vilana Financial Inc.*, a case involving the copying of images from websites, states that the removal of digital watermarks is proof of copyright infringement. It also states that the watermark itself is an actionable copyright.¹⁰ A copyright protected copyright. What evidence law does is to separate what was conjoined through technology, namely the thing and its proof. In so doing, it sets up a relationship between viewing subject and object based on visual discernability.

It may well be, as Charles Goodwin has argued, that the standard of visible perception is professional, selective and perspectival (and, therefore far from being value free or neutral).¹¹ It may well be that any image can only be apprehended having been first mediated by adversarial techniques. Nevertheless, by whatever means it is transformed into an object of legal knowledge, the image enters the trial arena as an object to be looked at and scrutinized. As a visible object in its own right, the watermark takes its place alongside all other visual items of real evidence such images, photofits, video recordings etc. They all exemplify what is at stake across the whole of evidential practice. The court is raised to the level of a Cartesian *ego affirmo* whereby distance is placed between perceiving subject and the referent; it distinguishes between subject and material object. It renders the first active and transcendental, the second inert. It privileges the subject over any referent/object as a disinterested, disengaged viewing machine living entirely outside the world it feels able to objectify. What is established is a position for the subject, the court, the judge, the jury within a symbolic and ordered register. That is to say, that even as a medium of description the image retains a specular function according to which subjectivity is positioned and affirmed in relation to the objectifiable world.

Detail

As an item of proof, the watermark emphasises certain qualities that are assumed to be inherent to its constitution. But the question of proof translates the watermark from mere detail to object in its own right. One of the purposes of the economical watermark is to authenticate a larger object of which the watermark is but a part. The theoretical question that arises is whether the watermark is an object within an object (as might be suggested by the case of *Gregson v. Vilana*) or a supplementary and adjectival detail. Because they cannot disrupt clarity, because they cannot obstruct the overall image, watermarks have to be discrete physical or visual traces. In digital processes, the objective is to place the watermark in the 'least significant bit' of the image (known by computer scientists as the LSB!).¹² The scrutiny of details within an image contradicts the Cartesian and scientific pursuit of objective representation. It also subverts the Cartesian position of the active subject who supervises over a world of objects. That the image or text is assumed to be a clear and stable representation, that it minimises doubt, rests on the presupposition that it is clear of obfuscatory detail; "only the things I conceive clearly and distinctly have the power to convince me completely."¹³

¹⁰ *Gregerson v Vilana Financial Inc.*, 2006 WL 3227762 D.Minn. In fact, the thirteenth century jurist Bartola de Sassoferato had already stated that ownership by individual papermakers could vest in watermarks.

¹¹ Charles Goodwin, 'Professional Vision' in *American Anthropologist* vol. 96 n. 3 1994, pp. 606-633.

¹² See Wen-Chao Yang, Che-Yen Wen and Chung-Hao Chen, 'Applying Public-Key Watermarking Techniques in Forensic Imaging to Preserve the Authenticity of Evidence' op. cit.

¹³ Rene Descartes, 'Fifth Meditation' in *Discourse on Method and Meditations* (Harmondsworth: Penguin, 1985) at p 147.

In a recent article, Ravit Reichman¹⁴ highlights the manner in which the more general aims of judicial methodology attempt to sacrifice trifles, small irrelevant details, and superfluous elements in favour of clearer scientific methods based on clarity and prediction. Details, argues Reichman, have little to do with the administration of justice and clear headed decisionism. We might note that Reichman's focus on the inter-relationship between law and culture (specifically the detective story as a cultural mediation of law) allows an alternative analysis of legal knowledge to emerge. Here, she argues that the cultural and literary analysis of law that develops outside the courtroom by way of detective and mystery novels allow for smaller details to rise to the surface. Broader cultural affection for the details that beset the investigative process is one that explains and allows for a 'cultural pleasure' in law as an antidote to dry legalism.¹⁵ It is in fine detail rather than fine print that the reader of detective fiction achieves textual delights.

The same argument regarding the sacrifice of detail *might* be made of the judicial and evidential evaluation of the watermarked image. In attempting to minimise the measure of doubt inherent in all probabilistic reasoning, evidence, after all, depends upon perspicuity and clarity. What renders the evidential image such a stable and technologically reliable medium is its supposed or relative freedom from obfuscation and undecidability. But are such "smaller details overlooked (or explicitly cast off) by legal discourse," as Reichman would have it.¹⁶ The etymological roots of that betray the ocular, visual register of evidence (*evidere*) simultaneously alerts us to another pattern of enquiry that cannot easily be reconciled to the Cartesian epistemology that requires the sacrifice of detail in order to achieve clarity in order to judge authenticity. *Videre/visio* also lends its meaning to another mode of evidential inquiry based on division (*dividere/divisio*).¹⁷ To divide and individuate is to distinguish, to see things in detail, to forget the whole picture or object and to concentrate on the part. Is such a process of particularization not already prevalent within the way in which watermarks become visible? Independent of judicial pronouncements regarding the quality of the image as a form, is the court itself not already an anti-Cartesian forum? Does it not already participate in a long tradition that recognises the epistemological effects of encounters with details?

Indeed, the watermark is an exemplary detail that marks and stains all legal reception of images and text. A photograph taken of a car crash might be scrutinized not for its overall depiction of the crash but for the manner in which the metal has twisted thereby providing a clue as to the causes of the crash, the speed with which the car was travelling (perhaps as it enters a tunnel) or the force of its impact. A photograph of an assassinated president might be examined in microscopic detail in order to assess the ballistic path of the fatal bullet. To provide a further example, consider the manner in which the video footage was used in the first trial of the police officers accused of using excessive force in the beating up of Rodney King. Instead of playing the video in actual time, defence lawyers were able to dissect its representative qualities with the most detailed precision. Images were frozen, aspects of a frozen image were encircled and isolated and through such techniques it became possible to conclude that Rodney King's body was a threatening one. Rather than viewed as one whole event unfolding in time, the video image was atomised into infinitesimal movements of a leg muscle, a rising buttock, an angle of a foot. As one commentator puts it: "In actual time, King's movement from the ground was closely linked to the blows of the batons and the jolts of the taser, but slow motion and a frozen video produced a different reality."¹⁸

Such an observation about the image is already recognition that the image contains within it atomic details, particles, that might otherwise be overlooked. The court is asked to hone in on one specific element that might make sense of the whole. The value of the image rests upon suspending normal everyday vision in order to

¹⁴ Ravit Reichman 'Making a Mess of Things: The Trifles of Legal Pleasure' in *Law, Culture and the Humanities* 1: 2005, pp. 14-34.

¹⁵ Ravit Reichman, 'Making a Mess of Things' at p 16.

¹⁶ Ravit Reichman, 'Making a Mess of Things' at p 16.

¹⁷ Thomas Thomas, *Dictionarium Linguae Latinae et Anglicanae* (Cantabrigiae: T.Thomasii) 1587.

¹⁸ John Fiske, 'Admissible Postmodernity: Some Remarks on Rodney King, O.J. Simpson, and Contemporary Culture' in *University of San Francisco Law Review* vol. 30, n. 4, pp 917-931 at p 918.

give attention to certain, otherwise hidden, elements. Cartesian methodology assumes the viewer of the image to be in control. The effect of the watermark, suggests otherwise that it is rather the image itself that surrenders its hidden code and renders details visible.

Take, from the more general evidential category, the case of photofit images as a further example of what Reichman usefully terms 'detailism'. New computer based wizardry has now established systems in which an image can be 'evolved' on screen following statements made by witnesses. Using genetic algorithms, the computer begins with a data base of thousands of variations of facial features; eyes, noses, chins, hair types and styles etc. In addition to these principle components, software is able to add skin tone, wrinkles, blemishes and so on. Once a possible solution is provided, the computer then repeatedly evolves the image until it best satisfies the witnesses recollection. The final face can then be dismantled into its constituent parts so that a new nose, or new chin can be added to the data base in order to be used in the future.¹⁹ Both the systematic compilation of the photofit and the process of identification relies not on an overall interpretation of identity, but rather on subordinate, even pedestrian, features. Far from sublimating the centrality of details, the photofit demands an appreciation of a seemingly endless proliferation of constituent parts that make up a face. The overall coherence of identity rests upon recalcitrant details that can never be exhaustively or totally archived.

Such a practice of detailism is one that already has a long history in evidential practice of the courts. It focuses upon the minimal signatures, the minutiae and seemingly insignificant detail. In attending to the visual nature of micro details that informs evidence, it could be argued that all evidence is imagistic in nature.²⁰ Historically, what saves a document from the status of hearsay are excessive visual minutiae that adhere to the surface of a document. They are what convert an otherwise anonymous letter into an onymous text. Such details - notorial signs, flourished pen work, initials, obligatory latin mottos, wafer seals and watermarks - are not essential to the document; they do not spell out any meaning.²¹ They are, however, the condition of its reception. Seals, for instance, (which may contain the impression of a fingernail, a garment, or a heraldic insignia) are both safeguards against interference and a the very token by which an agreement or instruction can be said to have taken place. They both close and complete a document and grant it a meaning by placing it within a recognisable symbolic register.

The place of 'detailism' can be expanded further in order to state that the oral witness himself can be understood in more imagistic terms. In his defence of the oral tradition of the common law, Matthew Hale turns the witness into an imagistic being composed of visual indicia; indeed it is the non-conscious mannerisms of a witness that supports his argument: "Many times the very manner of a witness delivering testimony will give an indication whether he speaks truly or falsely."²² What matters in the ascertainment of the truth value of a witness statement rests upon those visual indicia that leak out of the bodies of even the most schooled of witnesses. Indeed, rather than focus on the idea of the living pneumatic voice, it is precisely these visual details that form the consilia on oral testimony by the fourteenth century jurist Baldus: "we blush to say many things which we do not blush to write...One must see in a witness with what trembling he speaks, what there is in the visage, if he hesitates....there is a popular adage which says, speak and I will recognise

¹⁹ *New Scientist* 19 March 2005 available at www.newscientist.com/article.ns?id=dn7143.

²⁰ Or, as one judge puts it; "Every object seen with the natural eye is onle seen because photographed on the retina...What we call sight is but the impression made on the mind through the retina of the eye, which is nature's camera." *William Eborn v. George B. Zimpleman, Adm'r & c.*, 47 Texas 503 (1877) cited in Joel Snyder, 'Res Ipsa Loquitor' at p 219.

²¹ That signatures, wax seals, stamped leather fixes the identity of the witness is treated more historical fashion by Jean-Phillipe Levy, *La Hierarchie des Preuves dans le Droit Savant du Moyen Ages* (Paris: Annales de L'universite de Lyon, 1939). A more philosophical treatment of the status of the signature as a mark of transcendental presence (or nowness) is of course famously provided by Jacques Derrida, 'Signature, Event, Context', in *Margins of Philosophy*, tr. Alan Bass (London; Harvester Weatsheaf, 1982) at p 328.

²² Sir Matthew Hale, *History of the Common Law of England* (Chicago:University of Chicago Press), 1975

you.”²³ Or, as in the context of the modern doctrine of ‘real’ evidence: “The blush of nervousness or occasionally shame, the gape of stupidity, the gesture of annoyance, all have evidentiary value”²⁴ In short, what applies to watermarks extends to an analysis of all proof objects.

To what extent might this practice of detailism provide a radical alternative understanding of the place of copyright notices? To what extent might it render relevant Bayley’s history of mystical marks of communication? One of the charges that might be levelled against detailism is that it does not necessarily subvert the Cartesian distinction between subject and object. Details require that a subject confronts them in an act of supervision. The Aristotelian process of reasoning, after all, rests on the fundamental proposition that details and particularities are inherent entities to an object. It has already been noted that legal doctrine renders watermarks a quantifiable object. Even if only in philosophical, empirical or non-doctrinal terms, the same is true of all images. The imagistic detail is simply one further, albeit smaller object contained within a larger object (a photograph or video). A portion of an object remains an object to be viewed; the frozen and highlighted image of Rodney King’s foot is still a foot and might be treated as an objective fact in its own isolated terms. The point is made by the art historian, Georges Didi-Huberman.²⁵ For him, the detail is a nameable element of a painting. Details are all too visible; threads, needles, pins etc (in his analysis of Vermeer’s *The Lacemaker*). However miniscule, such details are merely hidden among other details waiting to be discovered by the “skilled art theorist’ who wishes to behave like a fetishist.”²⁶

Nevertheless, an important albeit unintended point seems to arise from Didi-Huberman’s observation. For, what a skilled art theorist who behaves like a fetishist (Didi-Huberman’s terms) actually does is to apply a fine scalpel to a philosophical tradition that seeks to repress the radicality of details by denying a distinction between substance and detail, or between the whole and the part. Indeed to render the detail an objectifiable element of a whole surrenders to a Cartesian fusion between substance and detail (or accident).²⁷ Nothing about the evidential practice of honing in on details allows for such a collapsing of a distinction between the whole and its part. These two features (the skilled art theorist who behaves like a fetishist, and the relationship between detail and substance) can be looked at in more depth in order to discern a more radical interpretation of the relationship between watermark and text..

In fact another tract of inquiry opens up if we were to ask more profoundly what the forensic examination of the watermark requires if conducted in the manner of a fetishist or a connoisseur. It is somewhat interesting and fortuitous to note that watermarks are the subject of connoisseurship. Bayley’s *The Lost Language of Symbolism* is simply one of many texts that collect and fetish the watermark. However, the term ‘connoisseur’, as the art historian Edgar Wind reminds us, should not be used simply to name a collector or character of refined taste.²⁸ Such a designation was an Eighteenth century import into the English language. Rather, the term is to be understood as an alternative *cognoscitorem* to describe one who is skilled in the evidential practice of attribution. Connoisseurship designates the practice by which the correct ownership can be attached to a piece of work, or by which a painter’s name can be attached to an otherwise anonymous (or falsely onymous) picture with precision; “as a skilled technician, the modern connoisseur knows by what signs to distinguish the genuine from the counterfeit; he can demonstrate authenticity.”²⁹ Such skills, according to Wind, are based upon a rationalized set of techniques and methods defined initially by Giovanni Morelli. This Morellian procedure, as it has become known, rests on “a meticulous technique of visual dissociation.”³⁰ This technique avoids the mistake-ridden business of inspecting an overall picture for its themes and subjects of

²³ Baldus, cited in G.D. Nokes, ‘Real Evidence’ 65 *Law Quarterly Review* 1949 at p 62.

²⁴ G.D. Nokes ‘Real Evidence’ p67.

²⁵ Georges Didi-Huberman, *Confronting Images; Questioning the Ends of a Certain History of Art* (Pennsylvania: Penn State University Press).

²⁶ Georges, Didi-Huberman, op. cit., at p268

²⁷ treated generally in the sixth meditation.

²⁸ Edgar Wind, *Art and Anarchy* (Chicago: Northwestern University Press, 1985).

²⁹ Edgar Wind, op. cit., p 31-32.

³⁰ Edgar Wind, op. cit., p 32

depiction. Poussin might favour certain biblical themes, but so do countless others whose paintings might look as if they were painted by Poussin. Similarly, and more obviously, Rembrandt shares motifs with other painters from the 'school of Rembrandt'. What then allows for a distinction to be drawn between a real and pretend Poussin, or Rembrandt? For Morelli, the 'normal' aesthetic reaction rather has to be suspended. The connoisseur has to step back from the painting's overall depiction in order to hone in on the most telling of details, the signature, a brush stroke, a watermark. What might be considered insignificant or inessential, such as the watermark, thus becomes a loaded index of assigning meaning. As Wind asserts; "to identify the hand of the master, and distinguish it from the hand of a copyist, we must rely on small idiosyncrasies which seem inessential, subordinate features...: the shape of a finger nail or the lobe of an ear."³¹

A century after Morelli's work, it feels like small wonder, as Carlo Ginzburg notes, that his techniques influenced the technique of Freudian psychoanalysis. In his essay 'The Moses of Michelangelo' Freud explicitly acknowledges his debt to Morelli: "It seems to me that his [Morelli's] method of inquiry is closely related to the technique of psycho-analysis. It, too, is accustomed to divine secret and concealed things from unconsidered or unnoticed details, from the rubbish heap, as it were, of our observations"³².

Uncovering the specific skills of the analyst, or the connoisseur, who proceeds by analysing the symptom or watermark from within the patient or work, allows us to be a little more specific about the nature of those details that inhere in the image. What the connoisseur does in fetishizing the detail is to recognise that the detail bears characteristics radically distinct from those that philosophers, or indeed lawyers attribute to substance. They are rather incidents.

From details to incidents

In an essay that expands on the theme of random atomism inherent in language, Derrida muses on the character of the detective Dupin specifically as he is portrayed in 'The Murders in the Rue Morgue'.³³ Dupin, so Derrida stresses, is precisely the type of analyst for whom "all is symptom and diagnostics."³⁴ He "examines the countenance of his partner... [h]e notes every variation of face...gathering a fund of thought from the differences in expression."³⁵ For Derrida, such details, such clues, are more closely linked to a family of similar particles consisting of symptoms, accidents, and atoms. What establishes this family of particles is that they are incidental and accidental (both to the history of philosophy and to specific ontologies). Put in more straightforward philosophical terms, Derrida returns the incident to a position in which it has to be divorced from instance or substance. That is to say that the incidental has to be understood in a broader sense as that which may be deemed extraneous to the purported essence or meaning of an image or a statement. The colour, taste, smell and texture of an object are merely incidental. While they might 'cleave' to a substance or a subject, they are simply 'casual'³⁶ effects and could be detached from an analysis of the essence of such things. Such incidentals may well attach to a substance, to a document, or to the oral performance of a witness, but they are in themselves non-essential qualities. They are separable and supplementary. A true analysis of an object, as judges would have it, would require details, incidents and

³¹ Edgar Wind, op. cit., p 36

³² Sigmund Freud, 'The Moses of Michaelangelo' in *Collected Papers* (New York: Harper Collins, 1959) 4:270-71 cited in Carlo Ginzburg, 'Clues: Roots of an Evidential Paradigm' in *Myths, Emblems, Clues* (London; Hutchinson Radius, 1986) at p. 99.

³³ Jacques Derrida, 'My Chances/Mes Chances: A Rendezvous with some Epicurean Stereophonies' in Joseph H. Smith and William Kerrigan eds, *Taking Chances: Derrida, Psychoanalysis and Literature* (Baltimore; John Hopkins University Press, 1984) pp1-32

³⁴ Jacques Derrida, op. cit., at p 12.

³⁵ Poe, cited in Jacques Derrida, op. cit., p 13

³⁶ The terms 'casual' and 'cleave' are often used by sixteenth and seventeenth century books of logic to describe the relationship between accident and substance. Thus, [An accident] is a voice or worde signifying thinges casuall, cleaving to substance or subjects.' Blundeville, First Book of Logike 1599 at p 9. Similarly; "An accident depends upon a substance for its existence. It is that which cleaveth to a substance." Zachary Coke, The art of Logic 1654, p. 27.

accidents to *fall away* from the gaze of inquiry. Indeed, the incident, Derrida reminds us, is what falls from the order of the world. Again, etymology refers us to a series of connections (or what Derrida claims to be fortuitous chances) relating to the fall. The words ‘accident’, ‘case’, ‘casual’, ‘occasion’, ‘occident’, ‘deciduous’, ‘cadaver’ are all related to ‘incident’ through *cadere*, or *kad* (in centum languages). They all refer to a fall, or a lapse away from a system, a form, an order, the sky, a tree or life itself; they are all *casualties* of a post-lapsarian system of thought that celebrates verticality and hierarchy (or, a system of thought that attempts to repair Man’s fallen status). As Derrida puts it, the incident “affects the upward stance and vertical position by engraving in [the subject] the detour of a clinamen” (the clinamen refers to the Lucretian theory describing the swerving of atoms as they fall).³⁷ Similarly, the incidental detail also shares the sense of fall with the word ‘symptom’ “a word meaning a sinking in or depression, a collapse but also a coincidence, a fortuitous event...”³⁸

Derrida’s analysis of chance ought to read as part of his broader concern with the relationship between aleatorics and representation, or rather with the aleatoric rupture of representation.³⁹ Such concern receives its most poetic and famous elaboration in *The Post-Card*⁴⁰ according to which representation is structured like a postal network; that is, the relationship between signifier and signified is structured according to channels that might link transmission to reception. And like postal systems, like any transmission from sender to receiver, the destination (or, in metaphysical terms, ‘destiny’) of meaning is prone to ambush, delays and chance occurrences. Letters go astray. Failure is always possible. Incidents occur and introduce a rupture in the relationship between signifier and signified, between image and referent.

It must be stressed here that Derrida is not concerned with the disorder of representation but rather with those hidden features that prevent closure of meaning from the outset. Where appellate decisions regarding the admissibility of images might be regarded as an attempt to control meaning, and to close meaning within coded convention, the incident introduces the fatal possibility of erring. The incidental detail always opens up the potential of swerving away from the proper juridically perceived destination of images. Incidental details that inhere in images such as watermarks thus belong to those other spatio-temporal figures unearthed by Derrida as constituting the radical grammar of texts (traces, supplements, interruptions, blank-spaces, cinders);⁴¹ endless profusions that defeat any attempt to fix meaning or to control the future of the image.

It might also be noted, and indeed as Derrida himself points out, that the theme of the incidental detail is one that belongs to a repressed (or fallen/lapsarian) tradition that could be said to harbour this fallen collection of particles; “never forget that through-out the history of Occidental culture the Democritian tradition, in which the names of Epicurus and his disciples are recorded, has been submitted since its origin (and initially under the violent authority of Plato) to a powerful repression.”⁴²

In other words, what renders the incidental detail so radical to methods of inquiry that stress objectivity and calculative rationality is precisely that they inhabit a register of what is potentially oblivious to consciousness thereby disrupting thought and visual analysis. As Bachelard puts it (in relation to the detail):

Thought and Reality seem to come undone, and we might say that by distancing itself from the order of magnitude in which we think, Reality somehow loses its solidity, its

³⁷ Jacques Derrida, op. cit., at p 5

³⁸ Jacques Derrida, op. cit., at pp 6-7.

³⁹ See Jacques Derrida, ‘Telepathy’ in tr. Nicholas royle in the oxford literary review 10 1988 3-41.

⁴⁰ Jacques Derrida, *The Post Card; From Socrates to Freud and Beyond*, translated, annotated and introduced by Alan Bass. Chicago, university of chicago press 1987

⁴¹ On the spatio-temporal figurations in Derrida’s work see J. Hillis-Miller, ‘Derrida’s Destinerance’ in 4. *MLN* 2006 pp. 893-910.

⁴² Jacques Derrida, op. cit., at p18.

constancy, its substance. To sum up, Reality and Thought founder together in the same nothingness, in the same metaphysical Erebus, sons of chaos and night.⁴³

The effacement of the visual paradigm

The authentication of any image, programme, text or document requires access to a hidden code, a supplementary detail, an incident. Security and copyright depends upon such devices. A form of disruption already takes place since the work has to be effaced in order to establish its identity within the world. The surface of a piece of work initially has to undergo a process of mutilation in order to make identity visible.

Yet, this initial process of mutilation required in order to introject the watermark, is simply the initial trauma. However well concealed a device such as a watermark might be, it is its continual non-erasable presence within the work, its status as mere incident, that threatens to overwhelm the work itself and destabilize the Cartesian triumphal certitude of visual clarity on which the meaning of the whole work, rests. The watermark cannot easily be reconciled with the Cartesian suppositions. What is important to bear in mind is that the Democritian tradition that Derrida wishes to highlight theorises the miniscule detail as an incident, a symptom, which falls away from systems and code. In the case of watermarks, this incidentality arises from/falls away from exactly same surface as a theoretically whole object. Against the massive determinacy that is superimposed upon the descriptive surface of an piece of work is a practice of viewing/reading that proceeds from the underside of the object, from its incidental signals.

This practice entails the physical manipulation of the watermarked work. There is almost nothing to see and precisely because there is almost nothing to see the viewer has to suspend his normal aesthetic practice. Disguised, hidden, buried or introjected as if within an unconscious register, the watermark only emerges when the watermarked work is held up to the light and scanned. What is required of this visual practice is not so much Cartesian ocularism but rather Freudian analysis; an examination of the original site of trauma in order for background to come to surface. In place of a sight line from subject to object lies a royal path from the recesses of interiority to consciousness.

It might be suggested that digital watermarks obviate the need for such physical manipulation. Digital signatures are often invisible. Yet in spite of their invisibility, these watermarks persist in presenting themselves as symptoms and incidents. And with more force. Subliminally or otherwise, there is always an awareness of the fact of copyright that inheres within a piece of work. There is always an awareness of the law operating upon consciousness or the unconscious of the 'viewer' as if the law were a watermark set within the interior domains of subjectivity. This persistence of such invisible, mysterious and uncoded messages as digital watermarks similarly disrupts visual practice. Conscious or unconscious reminders of another identity, they control the way we behave in front of the image. They provide a spatio-temporal set of incidents that manipulate the manner we approach the image. The viewer is no longer the superior *ego affirmo* of Cartesian subjectivity, but rather is passively manipulated by an anterior identity always present within the body of work. Merely incidental, watermarks continue the heretical function inaugurated by the pre-protestant sects. The economy of the watermark lies in the fact that in the war against images, watermarks are a certain way of destroying the image in favour of the name. It is the very desire to prove and represent ownership that destroys the work as an objectifiable whole. To quote from Bayley's *Lost Language of Symbolism*, watermarks are "the spirits that controlled material phenomenon."⁴⁴

⁴³ Gaston Bachelard, 'Essai sur la connaissance approchee' p257 cited in Georges Didi-Huberman *Confronting Images* at p 234.

⁴⁴ Bayley, *Lost Language*, p361