A Hippocratic Intuition for Balance in Warburg’s Mnemosyne Atlas

Theo Humphries & Stephen Thompson
Abstract

This paper illustrates the importance of balance in Aby Warburg’s Mnemosyne Atlas and explores how this can be understood as a resonance of the Hippocratic model of the humours.

Whilst modernity has sought to discredit the Hippocratic corpus and in particular the intellectual model of the humours as governing conditions, the notion of balance as a fundamental and recurring concern has been maintained in the artistic tradition. The artistic intuition for the importance of balance reflects the emergent nature of artistic endeavour and its parallel trajectory to scientific discovery. Where science has sought to discredit the humoral model, artists, and art-historians, have maintained, perhaps unwittingly, a resonance of the pre-scientific mindset. Today, as science moves to reincorporate some pre-scientific modes of understanding, we have seen a revitalisation of the role of the arts in discovery as the parallel trajectories have moved closer together. Warburg’s Mnemosyne provides a useful reference; situated as it is at the height of the classical model of science, because the Mnemosyne can be analysed to show how it relies upon a prescientific intellectual corpus in its construction.

In this paper we discuss the deep and uncertain history of humoural theory and the provenance of the Hippocratic corpus whilst highlighting the importance of ‘beneficial balance’ as a central concept to humoural theory. We then move to review some interpretations of Warburg’s Mnemosyne Atlas, and explore how ideas of balance also pervade the Mnemosyne; speculating as to some ways in which notions of balance might factor into Warburg’s experiences in planning, and constructing, his Mnemosyne and its subsequent reading by audiences.

This paper is part of a larger research project that uses design as a means to understand complex human behaviour. We focus particularly upon humour as a somatic characteristic of the human condition.

Though at an early stage in this research, as designers, we propose that the professional skill of the designer, who brings coherence and organisation to complex conditions, might be useful in order to bring some kind of fresh insight to the complexity of the human condition. Furthermore, those same skills of purposeful, and arguably poetic, organisation, may themselves enable a more contingent and open understanding of that condition than reductive scientific analysis, and a more coherent and ‘usable’ understanding than that of so many intellectually opaque philosophies. In our wider research we are looking at how artists and designers have employed things like ‘balance’ and ‘pattern’ and are looking to see whether this use emerges from a tacit, perhaps ‘genetic’, understanding, or from deeper prescientific schematic models of thought. It might seem rather tangential, or even funny, to employ the humours as a means into the study of humour. However, the common etymological root of these two terms, the fact
that the contemporary word ‘humour’ is derived from ideas of ‘moistness’ rather than ‘funniness’ invites consideration.

Humoural theories are ‘designed’ attempts to recognise and organise balance in the human body, the strategy being to manage the contingency of illness by redressing ‘imbalance’, a pre-scientific recognition, acceptance, and management of contingency. In this paper we try to demonstrate that ‘designers’ – in this case a group of like-minded physicians and an art historian, who lived many centuries apart – use aesthetic and intellectual ‘balance’ as a tool in order to bring chaotic complexity into some kind of resolved and ‘useful’ order; usefulness in this case being dependent on one’s ability to treat disease or interpret art history.

We begin by discussing the deep and uncertain history of humoural theory, and the provenance of the Hippocratic corpus. We highlight the importance and ‘benefit’ of balance as a central concept to humoural theory and show how the idea of a ‘beneficial’ and ‘mathematical’ balance arose from, and later reinforced, Ancient Greek conceptions of their wider universe. In a contemporary analysis, influenced as we are by modern medical understanding, ideas of the humours might be thought to have been consigned to history and are sometimes rather casually dismissed as being discredited by science, they do however provide something of a unique insight into a classical conception of the universe, and people as material beings within it.

The art-historian that we have considered is Aby Warburg (1866–1929). Warburg attempted to bring balance and organisation to an intellectual body of knowledge, namely the visual art of the Renaissance. We explore some interpretations of Warburg’s ‘method’, though the idea of a method was problematic for Warburg himself, and for others who have written about him. Whatever the case, Warburg did employ some intellectual means to organise his scholarly endeavours. Warburg’s Mnemosyne, (from the Greek Goddess of Memory) is arguably his most significant work; not simply a random collection, or even a Dadaist ‘happenstancean’ assemblage. Rather, the images that characterise it appear to have been carefully selected not only for content, but also for scale, and then intelligently arranged. Rather than to engage in an intellectual debate regarding the validity of this selection and arrangement process, or not, as a ‘method’ we will take a different tack in order to explore how balance might have been important to Warburg in his selection, sizing, and composition of the images in the Mnemosyne, since balance appears to be palpable in the Mnemosyne when it is read. It appears as if one uses a ‘tacit’ understanding of balance as a frame of reference with which to read the inter-relationships of the images presented in the Mnemosyne as an interpretive form of ‘visual grammar’. We review some interpretations of Warburg’s Mnemosyne Atlas, and explore how ideas of balance also pervade the Mnemosyne; speculating as to some ways in which notions of balance might factor into Warburg’s experiences in planning, and constructing his Mnemosyne and its subsequent reading by audiences.

Finally, we briefly compare the presentation of the Mnemosyne to its audience to the presentation of a Hippocratic physician with a patient. The conclusion of this speculative and playful thought experiment is that the Mnemosyne might be considered a ‘symptomatic’ record of Warburg’s intentions and understandings, in addition, of course, to the intentions and understandings of the
original artists that are embodied in their work, and re-presented by Warburg.

**A Deep and Uncertain History**

“Life is short, art is long”\(^1\) (Hippocrates)

If we are to talk of the ‘Hippocratic humours’ then we must take care to understand the vague-ness and fluidity of the concepts and constructs encapsulated in that term. Like any other field of human knowledge, the humours are open to historiography. They are an uncertain construct of both ancient history and modern interpretation.

It is now rather accepted and common knowledge that Hippocrates of Kos stands for the foundation of the profession of Western medicine. Hippocrates (460–377 BCE) is frequently claimed by the medical profession to be the ‘father’ of medical professionalism (Goldberg, 2006) as his diagnostic and symptomatic approach to medicine dominates even in the scientific era. Hippocrates is claimed to be the originator of many familiar medical terms and modes of operation, being a staunch advocate for the need for diagnostic medicine, informed by detailed case study (Lloyd in Hippocrates, 1987, p. 31), and comparison of patient symptoms (Hippocrates, 1987; Goldberg, 2006; Arikha, 2007). Indeed, the Hippocratic Oath that many doctors swear bears his name in homage (Arikha, 2007, p. 6).

Hippocrates then cannot easily be written out of medical history, though, of course, the ideas that he has come to represent have been rendered to some extent naïve by science. There can be no doubt that the foundational insight of the classical physicians has shaped the Western medical-scientific profession for over two millennia. Although principally concerned with the humoral ideas of Galen of Pergamon (c.129–c.199/217 CE), another key figure in histories of the humours,\(^2\) Stelmack and Stalikas attribute the longevity of the humoural model to “an elegant theoretical structure, reasonable empirical evidence and the absence of compelling alternatives” (1991, p. 262). In this paper we propose that, in addition, such longevity might also be due to the fact that the humoural model coheres with a human intuition for a ‘beneficial’ nature of balance.

When building a historical trajectory for the idea of balance as a resonant quality in a process of intellectual engagement and creativity, it is important to recognise the instability of figures and ideas from deep history. For example, whilst Hippocrates remains an important figure in this history of medicine, there is much contention as to the authorial provenance of the Hippocratic corpus. Treatises such as ‘On the Nature of Man’ (Hippocrates, 1984), are often attributed to Hippocrates but are held by some, such as Timken-Zinkann, to be “[…] attributed erroneously by the ancients to Hippocrates, but very probably written by Polybos, the son-in-law of Hippocrates” (Timken-Zinkann, 1968, p. 289). This view is shared by Arika (2007, p. 8). Lloyd takes the entire Hippocratic corpus to be “evidently the work of a large number of medical writers, belonging to different groups or schools and representing in many cases quite opposed viewpoints, not only on such questions as the aetiology of diseases and the methods of treatment, but also on the methods and aims of medicine as a whole” (Lloyd in Hippocrates, 1987, p. 10).
Regardless of whether Hippocrates authored the corpus that bears his name, Stelmack and Stalikas refer to Smith in his assertion that “[t]he humours were considered to be causes of illness in a long medical tradition that preceded Hippocrates” (1991, p. 257). This “long medical tradition” is traced by Kagan as far back as Ancient Chinese conceptions of reality that pre-date Hippocrates, Polybos, and their contemporaries by two thousand years (Kagan, 1994, p. 4). The aim here, however, is not to construct a soundly based history, or even a new historiography, but rather to establish a sense of an intellectual currency. So whilst these contentions regarding the provenance of Hippocrates and the origins of the humours may be a concern for some, they do not present a problem for us. Whether one author, or many, compiled the Hippocratic corpus, or whether indeed Hippocrates originally conceived the model of the four humours, does not deflect from the central tenet of the ideas that they represent. The actuality that what characterises this set of ideas is the fundamental importance of the maintenance of balance in the human ‘soma’ (Thompson, 2009) is seemingly beyond contention. That a state of balance might be a ‘beneficial’ state is undoubtedly an idea that has persisted in human culture for several millennia.

It is for the aforementioned reasons that the word ‘Hippocratic’ is deployed in this text to refer to a certain mindset, and model of being, rather than necessarily to the ideas of an individual named Hippocrates.

![Fig. 1. “The relation between the four cosmic elements, the four qualities of the elements and the four humours” (Stelmack & Stalikas, 1991, p. 258).]
The Humours

Whilst the four humours are known by various names, they are typically referred to as bile (chole), black bile (melanchole), blood (sanguis), and phlegm (flegma). In keeping with the European proclivity for binary opposites, the four humours were attributed certain qualities that were construed in opposition to one another. The intention, of course, was that opposing humours would be perpetually locked in opposition, cancelling one another and maintaining balance in the human system. Humoural attributes in binary form include temperature (hot/cold) and humidity (wet/dry) (Hippocrates, 1984). The humours were also associated with four fundamental elements that were thought by Ancient Greek natural philosophers, such as Empedocles (c.493–c.433 BCE), to constitute a tetrad of irreducible, but intermixed, elements that made up the material universe: earth, air, fire, and water (Stelmack & Stalikas, 1991, p. 254).

To briefly describe a Hippocratic understanding of the humours: blood was categorised as warm and moist and was associated with air; yellow bile was categorised as warm and dry and was associated with fire; black bile was categorised as cold and dry and was associated with earth; and phlegm was categorised as cold & moist and was associated with water (Hippocrates, 1984, pp. 260–270). Notions of tension and balance inherent in the opposing nature of the four humours might be better understood with reference to a simple diagram (Fig. 1).–

There were also seasonal associations (blood and spring; yellow bile and summer; black bile and autumn; phlegm and winter (Stelmack & Stalikas, 1991, p. 258)), and associations of gender, and of age (blood and child; yellow bile and young adult; black bile and middle age; phlegm and old age (Hippocrates, 1984) that increased the granularity of components within the humoural model and therefore enabled increasingly subtle and dynamic conceptualisations of disease and diagnoses.

For Hippocratic physicians, the balance of the humours was known as “krasis”, it gave rise to good health and to good mood, while a condition of humoural imbalance, or “dyskrasia”, resulted in ill health and poor mood (Porter, 1930, p. 182). The notion that good health and good mood arise from a system in balance was reflected in the use of medical treatments whose function was to redress imbalance. As Lloyd highlights in his prolegomenon to the Hippocratic treatise ‘The Nature of Man’, the corpus states that:

Diseases caused by over-eating are cured by fasting; those caused by starvation are cured by feeding-up. Diseases caused by exertion are cured by rest; those caused by indolence are cured by exertion. To put it briefly: the physician should treat disease by the principle of opposition to the cause of the disease according to its form […] (Lloyd in Hippocrates, 1984, p. 33; Hippocrates, 1984, p. 266).

This “principal of opposition” – cure versus cause – approach appears to be in direct conflict with the notion that ‘kind treats kind’ – cause versus cause – an idea that eschews the maintenance of balance in that, rather counter-intuitively, the cause of the problem is used to treat the problem. The ‘kind treats kind’ idea underpins practices such as homeopathy and immunisation and was present at the time of the formation of the Hippocratic corpus (Arikha, 2007).
A key insight of the humoural model was to understand the contingency of the humours to reside in a field of purely somatic influences that was independent of any theistic impetus. In Hippocrates’ time, and indeed throughout history and even to the present day, superstition would dictate that some form of deity might act as a capricious influencer in people’s lives. Rather than understanding the human as a singular consequence of the material formation of the Gods, the Hippocratic corpus appears to present life as emerging as a realisation from an identifiable proto-materialistic science, situating temperament as a result of bodily processes. The balance here was maintained by, and in, material substances, rather than supernatural forces.

This separation of the medical body from a theistic influence enabled the medical profession to flourish alongside, but separated to a degree, from other facets of Western culture. This separation differentiated the physician from the priest and simultaneously described the human soma as a form of permeable, but enclosed, self-realising and healing entity. That is not to say that to subscribe to the views of the Hippocratic corpus was to embrace atheism, as Arikha points out: “No Hippocratic doctor would have denied the god [Asklepios] his powers, and, indeed Hippocratic doctors were called Asklepiads because they were healers and thus followers of Asklepios [the Ancient Greek god of healing and medicine]” (2007, p. 16). Whilst the Hippocratic corpus is not an atheist text, it does infer that pains and diseases are not the punishments of the Gods, rather that they are emergent properties of a somatic system in a state of ‘krasis’ (meaning humoural imbalance (Porter, 1930, p. 182)). Therefore, the corpus reasons, it might be within the scope of the mortal physician to redress the balance and return the patient to a state of ‘krasis’ (humoural balance, Porter, 1930, p. 182).

The Hippocratic corpus was predated, and appears to be influenced by, a set of ideas that are commonly attributed to Pythagoras (c.570–c.495 BCE):

> The Pythagoreans […] reasoned that the harmony of the universe also depended on number. In their numerology, the number four was of special (even sacred) significance; every material body was an expression of the number four. Since the importance of the number four was considered to be foundational in the material Universe of classical scholarship (Copelston, 1946), the logical consistency of their study and the impressive demonstrations that they made, such as the renowned Pythagorean theorem, earned widespread and longstanding acceptance of many of their principles (Stelmack & Stalikas, 1991, p. 257).

> “The Greeks assumed that the universe was symmetrical; hence, nature would not have constructed human personality asymmetrically” (Kagan, 1994, p. 7). It is of little surprise then that given the presence of the previously mentioned Empedoclean tetrad, and the sacred Pythagorean ‘material’ number four, there should also be four humours, and that these humours had attributes that bore resonance in our material universe. Nor is it surprising that the relationship between these attributes would be strictly defined.

The Hippocratic separation of soma from theism should not lead to an erroneous assumption that Classical physicians regarded the human body to be isolated from its environment. Considering the Hippocratic belief that the humours arise from gastric processes we might imagine that, for
the Hippocratic physician, the consumption of food provided an enteric, and therefore somatic, connection to the universe in that by consuming food, one both consumes the universe, and reaffirms one’s place within it. Constructs of the humours were seen to be coextensive across individual being and with the material Universe, that is to say that the humours had resonant qualities which gave form to the universe and which in turn had influence upon the body, though of course subject to the further influence of a deity. In Hippocrates’ destabilising of the absolute power of the deity this wider contingency was lost too.

Ancient, medieval, and to an extent contemporary, medical doctors appear to retain something of a self-referential logic. It is plausible to argue then, that this logic in turn has lead medical doctors themselves to take a similar view of the fragile and diseased bodies with which they work as being a form of universal and self-referential system. The Hippocratic balance of the bodily humours, a critical factor in deciding both one’s health and one’s mood, is a form of regulation through the influence of a field of contingencies which, over time, and with the increasingly reductive influence of scientific understanding has transformed the idea of the somatic condition to be formed through a balance of humours into a more direct, mechanistic, consequence of the fluctuating levels of numerous dopamines. In the contemporary medical body the condition of being is to some extent regulated by dopamines and these can be seen as the scientific descendants of the humours; an ancient means of understanding being as a condition emerging from the material. As Kagan proposes: “Galen’s bold inferences [regarding the humours] were not seriously different contemporary speculations that schizophrenics have an excess of dopamine and that depressives have insufficient norepinephrine” (1994, p. 8). Thus important humoural notions of balance and equilibrium continue to pervade contemporary scientific understandings of the body, albeit embodied in new understandings and their associated terminology.

**Warburg’s Mnemosyne Atlas**

In order to better understand the importance of balance in reference to the *Mnemosyne Atlas*, it is worth contemplating the processes and approaches involved in its creation, in addition to analysing the *Mnemosyne’s* ultimate presentation. Such contemplation is valid here because it appears to reveal something of an intuition for the importance of balance implicit in the conception, construction, and final presentation of the *Mnemosyne.*

There has been some resistance to the categorisation of Warburg’s ‘way of working’ as a method. For example, Woodfield has stated that “both Gertrud Bing, Warburg’s assistant, and Ernst Gombrich, his biographer, have objected to the use of the term ‘Warburg method’” (2001, p. 260). In addition, Michaud appears to refer to such objections when he makes mention of Warburg’s “so called method” (2007, p. 10). This does not however preclude us from attempting, inspired by the approach of Frederick Will (2008), to imagine Warburg’s approach to the construction of the *Mnemosyne* and to attempt to conceive of his experiences during this process.

Given that the *Mnemosyne Atlas* contains “some 2,000 photographs from Warburg’s collection”
(Dillon, 2004), one might imagine that an intuition for the importance of balance was present in Warburg’s mind as he selected the images that he would include in his *Mnemosyne*, and as he set aside, either physically or mentally, those that he would not. Each new image that Warburg chose to be included in the *Mnemosyne* contributed in a small way to “form a new, complex entity” (Michaud, 2007, p. 244) through which Warburg aimed to create “an organic conception of his library” (Michaud, 2007, p. 10).

When viewing Warburg’s *Mnemosyne* “[i]t is not made clear by numbers or other indications in which sequence we are to ‘read’ the images” (Schoell-Glass, 2001, p. 194). The viewer necessarily has to “recreate the trajectories of meaning, the highlights, by focusing on the spacing of the photographs and on the differences in size among the printed images that correspond to variations of emphasis” (Michaud, 2007, p. 246). It is for this reason, identified by Michaud, that Warburg’s consideration of the balance between the size and position of the images, in relation to one another, was of particular importance in his construction of the *Mnemosyne*. In the absence of written text for navigation, the reader is forced to search for, and ultimately guess at, a sort of ‘visual grammar’ in order to make a sensible reading of the *Atlas*. Whilst we cannot be sure of the exact nature of such a grammar, existing as it does in the mind of any reader, we can be fairly sure that the relationships between the images – their comparative dimensions, position, etc. – would exert influence over the formation of such a grammar. It is for this reason that the images within the *Mnemosyne Atlas* should be considered as complex and meaningful arrays, rather than merely arbitrary ‘collections’ of images. As Michaud infers: “The images assembled by Warburg […] function as discontinuous sequences that find expressive significance only when considered in an arrangement of complex interconnections” (2007, p. 260).

Much like the Hippocratic physician presented with a patient, the photographs arranged by Warburg present a ‘symptomatic’ record of his intentions and understandings. This is in addition, of course, to the intentions and understandings of the original artists that are embodied in the images that Warburg has re-presented. When examining the *Mnemosyne Atlas*, the viewer might be thought of as engaged in a form of visual ‘diagnosis’: searching for meaning, searching for causality, searching for a named truth.

In representing the interrelationships between the image components of the *Mnemosyne* visually, rather than inferring such interrelationships through text, Warburg has invited alternative modes of analysis than those traditionally suited for text-based art histories. Schoell-Glass has stated that “[o]ften, scholars have analysed the *Bilderatlas* in terms of aesthetics, that is, as if it were an art-work rather than a scholarly endeavour” (2001, p. 183). This is an interesting phenomenon, prompting us to consider how such scholars might have analysed Warburg’s so called endeavours had they been presented as plain text. In the case of the *Mnemosyne*, it appears that notions of balance that derive their meaning from its visual nature might be less apparent were the *Atlas* a more traditional text-based art history. Of images, such as those that constitute the *Mnemosyne Atlas*, Will asks: “Does the visual replica satisfy us more fully than the word picture? Does it seem better designed than words to encounter what is sensuously fine in the original?” (2008, p. 4). One might suppose, with reference to Warburg’s vision for the *Mnemosyne* to be, as he has
said, an “art history without text” (Michaud, 2007, p. 240), that Warburg would answer ‘yes’ to both of the questions that Will poses.

In addition to being present in Warburg’s construction of, and audiences’ later ‘reading’ of the *Mnemosyne*, references to balance also appear in some analyses of the *Atlas*, for example Gombrich...
(Warburg’s biographer) describes the nature of the Mnemosyne as maintaining “a balance between a poetic metaphor and a theory of reality” (Schoell-Glass, 2001, p. 198). Here Gombrich appears to highlight the experiential nature of the Mnemosyne, presented as it is as a visual experience, in photographs, rather than a symbolic experience, as text. The visual presentation of the Mnemosyne, in this case, appears more sympathetic to the presentation of our reality than a written account.

**In Summary**

We began this paper by discussing a deep and uncertain history of humoural theory, and the provenance of the Hippocratic corpus. Where this history is concerned, we explained that regardless of the factual details regarding authorship, the Hippocratic corpus has continued to exert influence over Western medical practice for the last two and a half millennia. We have demonstrated that during this time humoural theory might be thought of as having shifted its named constituents from the blood, phlegm, bile, and black bile of the Ancient Greek body, to an ever-increasingly complex array of chemical substances – including neurotransmitters, hormones, enzymes, etc. – in the contemporary scientific soma. We have taken care to describe the ‘beneficial’ nature of balance in Ancient Greek intuitions. This notion of ‘beneficial balance’ appeared to extend beyond the human soma and into wider conceptions of the Ancient Greek universe.

We then moved to review some interpretations of Warburg’s Mnemosyne Atlas, and in doing so explored how some ideas of ‘balance’ appear to pervade both the Mnemosyne and the Hippocratic corpus. We were keen to show that whilst some respected authorities (for example Bing, and Gombrich) have objected to the categorisation of Warburg’s endeavours as a ‘method’ by their understanding of the word, nonetheless it is useful to us because of a resonance, in terms of certain intuitions for balance, with the Hippocratic model of the humours.

We have speculated as to some ways in which notions of balance might factor into Warburg’s experiences in planning, and constructing his Mnemosyne Atlas and in its ‘reading’ by subsequent audiences. Balance has been shown to be important in such readings of the Mnemosyne, with viewers appearing to be informed by ‘tacit’ or ‘epistemic’ understandings of the term, enlightened by a frame of reference with which to read the inter-relationships of the images presented in the Mnemosyne as an interpretive form of ‘visual grammar’.

A question that we have considered, albeit rather indirectly, is: Is an understanding of the need for balance really a tacit part of being human and part of a naturalistic grammar, or is it perhaps a consequence of a deep resonance of a prescientific schema? We are as yet unsure of the answer, but the intention of this paper is to provoke such questions, despite any answers appearing uncertain.
Notes

1 The word ‘art’ here should of course be taken to mean the ‘art’, i.e. ‘technique’ of the medical practitioner, as the Greek word originally used was ‘tekhnê’, which might be interpreted as the word ‘craft’. We appreciate, however, a certain pertinence in considering the implications of this claim for both the fine art of the Mnemosyne, and for the intellectual thrust of this paper: that the beneficial nature of balance is an enduring human concept, traceable through multiple histories that include both ‘art’ and ‘science’.

2 According to Kagan, and others, Galen considerably strengthens the ties between the humours and temperament in the Western medical mind, ensuring a continued influence and longevity of humoural theory (Kagan, 1994).

3 List adapted from that of Stelmack & Stalikas (1991, p. 255).

4 Schoell-Glass refers here to the Mnemosyne Atlas by the name Bilderatlas; the English translation of the German Bilderatlas being literally picture-atlas.


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Bibliography


