ARTWORK BY ELVIA VASCONCELOS. FROM THE ARTISTIC RESEARCH PROJECT "SKETCHES AS A CONVERSATION INTERFACE" CONDUCTED WHILE DOROTHEA SCHLEGEL ARTIST IN RESIDENCE AT THE CLUSTER OF EXCELLENCE "TEMPORAL COMMUNITIES: DOING LITERATURE IN A GLOBAL PERSPECTIVE", 2021.

PELLICLE AND PORTRAIT:

A Historiography of Face, Race, and Interface in Media Theory (Thinking into the Cracks Between Lavater, Dagognet, & Galloway)

"A subterranean history tying portraiture, caricature, scientistic facial reading runs through historical theorisation of the interface."

Lindsey Drury

→

In 2008, Alexander Galloway brought theorisation of the interface to the centre of media studies with his article "The Unworkable Interface."[1] Therein, Galloway chose to retheorise the interface by, in-part, quoting a somewhat forgotten philosopher of the body – François Dagognet – from his 1982 book *Faces, Surfaces, Interfaces*. Galloway translated the French philosopher of Lyon's description of the interface as a "région de choix" and "fructueuse convergence," providing an English-language readership with the interface as a "area of choice" and a "fertile nexus."[2] Galloway's intervention challenged the notion of the interface as a threshold allowing unobstructed passage, re-enlivening the idea that interfaces – be they analogue or digital – were conditioned by contingency, interpretation, and misconstruance. As fertile nexus, as an area of choice, the interface characterised in Galloway's theorisation emerged through its interference – what Galloway described as *unworkability*.

By 2012, an updated version of Galloway's article and its discussion of Dagognet became the first chapter in Galloways' sixth book, *The Interface Effect* (2012). A flurry of works has since followed on Galloway's heels, citing Dagognet's way of describing interface, with the consequence that the once forgotten philosopher has become a popular reference among media studies scholars.[3] Dagognet's book

---

1. Alexander Galloway, The Unworkable Interface. *New Literary History* 39 (2008), pp. 931-955.

2. "L'interface - nous l'avons noté dès le départ, - constitue bien une région de choix. Elle sépare et en même temps mêle les deux univers qui se rencontrent en elle, qui déteignent généralement sur elle. Elle en devient fructueuse convergence." See: Alexander Galloway, *The Interface Effect* (Cambridge 2012); Galloway, The Unworkable Interface, p. 938; François Dagognet, *Faces, Surfaces, Interfaces* (Paris 1982), p. 49.

3. Such works include, for example: Austin Booth and Mary Flanagan (eds), *Re: Skin* (Cambridge 2009); Jihad Maalouf, *Interface: Essai sur le geste d'amour* (Paris 2015); Maryse Carmes, *Les fabriques numériques de l'organisation* (London 2017); Frans-Willem Korsten, *Art as an Interface of Law and Justice* (New York 2021); Donatella Della Ratta, Geert Lovink, Peter Sarram, and Teresa Numerico (eds), *The Aesthetics and Politics of the Online Self* (London 2021); Michael Century, *Northern Sparks: Innovation, Technology Policy, and the Arts in Canada from Expo 67 to the Intern Et Age* (Cambridge 2022).

Faces, Surfaces, Interfaces, however, is idiosyncratic as a source text for contemporary media studies address of the interface. Accordingly, media studies reception of Dagognet would benefit from greater contextualisation of Dagognet's concept of interface, as well as a fuller account of what he pursued as a scholar and theorist. This article – along with the translation of the third chapter of Dagognet's *Faces, Surfaces, Interfaces* that follows within this volume – aims to contribute to conditions that might inform future address of Dagognet's work and its relevance (and problems) for the study of interface.

In addressing Dagognet's articulation of interface, numerous recent works rely on Galloway's translation of the French: "The interface … consists essentially of an area of choice. It both separates and mixes the two worlds that meet together there, that run into it. It becomes a fertile nexus."[4] Further explaining this idea, Galloway goes on:

```
The interface for Dagognet is a special place with its
own autonomy, its own ability to generate new results and
consequences. It is an "area of choice" between the Muse
and the poet, between the divine and the mortal, between
the edge and the center. But what is an edge and what is a
center? Where does the image end and the frame begin? This
is something with which artists have played for generations.
Digital media are exceptionally good at artifice and often
the challenge comes in maintaining the distinction between
edge and center, a distinction that threatens to collapse at
any point like a house of cards.[5]
```

While Galloway's article draws from Dagognet's definition to further a theorisation of mediatised interfaces and artistic manipulation

---

4. Galloway, Unworkable Interface, p. 938.

5. Ibid.

of and irreverent play with how interfaces are naturalised or invisiblised, Dagognet's address of interface focussed on the literal interface of face-to-face exchange when two people read and interpret each other's expressions. The concept of interface Galloway quoted from Dagognet appears in *Faces, Surfaces, Interfaces* within a chapter on morphology, where the term 'interface' is called upon to specifically address how expressive corporeality is, in interface, composed in mutuality, through relations held *between* bodies, rather than held *discretely within* bodies. Dagognet was, as well, building a proposal, envisioning methods that could be used to more precisely read people from their faces. The act of conversation, and the interface between bodies it produces, Dagognet suggested, might be further instrumentalised, further measured, understood, and addressed, in a new physical anthropology of the face. In a chapter on biopsychiatry translated to English by Donald M. Leslie for the volume *Incorporations* (1992), the philosopher gives a *pellicular*[6] articulation of interface, as the membrane, skin or surface of a communicating body that is shaped into an expression as it is cast into social relation, and therewith proposes the necessity of its anthropological discernment:

We are born where the currents of desire and forces of order meet. The somatic arises from their confrontation or reconciliation. This is why looking at the body can reveal the conflict of these powers at their intersection or interface. Thus, what I shall provisionally call the "anthropologist" must necessarily take an interest in appearance and a full range of physical manifestations (such as posture, bearing, gestures, the voice and its timbre, facial expressions). Isn't a key element of his art to externalize buried psychomotility as much as affectivity (which he apprehends during the act of transference)? In effect, the psychomotorial has been obliged to become

---

6. The pellicule or pellicular is an outer membrane, skin, shell or film, esp. on protozoans.

```
"virtual" to such an extent that it has almost disappeared
from view. One must learn to represent it, to convert the
interior to the exterior. Then it will be possible to put
the "mind" outside, to lay it bare.⁷
```

It was physical measurement and the ability to precisely read the body surface (its interface) that Dagognet ultimately pursued.[8] Toward this end, Dagognet understood interface quite literally as the site of confrontation between embodied surfaces. He wrote about the interface therefore in a work imagining that scientists might expertly read the embodied expressivity of faces, thereby unearthing the psychology of a person from their surface. He hoped to ignite further research pursuit of the precise reading of fleshy facial surfaces, thereby founding a new physical anthropology that could push aside a field of psychology that had, since the failure of phrenology and physiognomy, imagined the psyche and its unconscious as a cloaked internality buried within the immutable surface of the skull. In support of this project, Dagognet became an apologist and revisionist of the eighteenth-century priest and physiognomist Johann Caspar Lavater (1741–1801).[9]

Historically, pursuits of methods by which people might be read by their surfaces have been racist and sexist. Lavater's physiognomy, which sought to systematize a method of reading character types in the structures of faces, is no exception. Lavater often followed racist and sexist stereotypes in 'systematising' analysis of psychology from

---

7. François Dagognet, Toward a Biopsychiatry, in: *Incorporations* (New York 1992 [1982]), p. 517.

8. Gérard Chazal, Philosophy and Technology in the French Tradition. The Legacy of François Dagognet, in: *French Philosophy of Technology*, ed. Sacha Love and Xavier Guchet (New York 2018), p. 29.

9. Laurent Dartigues, Le retour d'une 'demi-erreur'? De la physiognomonie selon François Dagognet à la nouvelle psychiatrie. *Astérion* (2018), http://journals.openedition.org/asterion/3161, access: February 3, 2023, 9:20pm.

assumed 'legibilities' on the surface of the expressive body. Lavater's work further drew from the studies of Renaissance artists such as Albrecht Dürer, racist ideas of Enlightenment thinker Immanuel Kant, and the craniometry of Pieter Camper. Lavater's work is easy to identify among other scienstistic racist theories, some of which were likewise entangled with the fields of craniometry and physical anthropology, developed in the nineteenth century in ways that incorporated white supremacist logics.

In an analysis of Dagognet's recourse to Lavater's eighteenth-century physiognomy, Laurent Dartigues began the article "Le retour d'une 'demi-erreur'?" by expressing astonishment: "Cet article naît ainsi d'un étonnement et d'une curiosité."[10] With Galloway, another branch has been added to the lineage of citations, and so I begin by repeating the gesture of surprise and curiosity. Why has citation of Dagognet among media studies theorists continued for more than a decade in ways that do not flag the problematics of his proposals and his source materials? The omission, I argue, arises (like the interface) to prevent the obstruction of Dagognet's unworkability. In *Faces, Surfaces, Interfaces*, Dagognet likewise bypasses the unworkability of source texts, discussing the "demi-erreur" of physiognomy in an attempt to remedy what he saw as the field's mistakes without tackling the most devastating of its errors. Focussing his attentions on expanding upon Lavater, Dagognet does not mention the contents of Lavater's chapter, "On the Differences of Skulls as they relate to Sex, and particularly to Nations." This glossing over or failure to mention seems to have shielded Dagognet's text from critical inquiry of the ways that racism, classism, and sexism might, as unmentioned elements of physiognomic logic, be inextricable from Dagognet's premise.

---

10. Dartigues, Le retour d'une 'demi-erreur'?, para 3.

Interface as Citation

To critically query what the interface might be and where it can be found, Galloway blended art historical inquiry and media studies approaches, proposing the interface as something arising as a "liminal transition moment in which the outside is evoked in order that the inside may take place."[11] Drawing from a wide body of aesthetic creation, including Homeric poetry, twentieth century popular and comic art, and video games, Galloway articulated the interface as performed by media, constructed as a frame that, because it denotes interior and exterior, takes place not as an actual or true limit, but as the composed space where irreverence or reverence for the imposed limits which delineate interiors from exteriors can be performed. The interface, writes Galloway, "is within the aesthetic, not a window or doorway separating the space that spans from here to there."[12] How a work deals with the difference between what it signals as contained within it, and how it signals what is excluded – or its 'centre' and its 'edge' – emerges not as a pure, matter-of-fact, reified *thisness* and *thatness* of, for example, 'mountain' and 'sea.' It arises instead as the articulation (described by Galloway as 'choice' or 'indecision') which clarifies them apart, or which uses them to define a political border. If the interface also signals an 'awareness' or acknowledgement of that choice – if it shows willingness to 'break the fourth wall,' so to speak – this Galloway then further defines as its *intraface*.

Galloway augments this explanation with a list of centres and edges in an info-box. The list begins with "text" under the heading of a centre, and "paratext" under the heading of an edge. In other words: A text

---

11. Galloway, Unworkable Interface, p. 938.

12. Galloway, Unworkable Interface, p. 944.

is within the work, is its centre, while the paratext defines its edge, providing context and limit, and thus frames it, giving it delineation, pointing back to it as a work. There is, however, yet another such literary interface that Galloway's writing, as an academic text, implicitly engages with: that of citation. Galloway's own citations, including Dagognet's concept of interface (or herein, my own citation of Galloway, Dagognet, and others), are contained within the work but cause the sense of the work to rely on an exterior which, while recognized as absent and thus exterior, is also signalled as present, as both *referenced by* and *immanent within* the text at hand and its sense-making. Citation, I argue, is also an interface between the text and its exterior, but it is one that doesn't so much signal where the work 'ends' or assigns its limit, but where it comes into exchange with that which it cannot entirely contain; Where its elucidation of another, even if extraordinarily enlightening or insightful, nonetheless cannot take the place of that which it references.

The interface of citation was an important component within Dagognet's concept of interface, as Dagognet sought and failed through citation to revive Lavater from the junkpile of history by re-thinking and updating Lavater's work within the body of his own work. Galloway's twenty-first century citation of Dagognet, without any similar rehabilitative intention, was nonetheless more successful than Dagognet at such a process of reviving. Galloway's citation re-enlivened Dagognet as a reference relevant to contemporary scholarship on the interface. In so doing, however, Galloway's text didn't carry forward much of Dagognet's original meaning. Galloway plugged into Dagognet and extracted a few interesting titbits, appropriating from Dagognet what was fitting to a new set of arguments on interface. Galloway's citation of Dagognet was thus partialized, severing a quote from Dagognet's writings about

embodied exchange from its context, and thus successfully rendering Dagognet's ideas more available to be repurposed for further use in art historical inquiry and media studies discussions of technological interfaces. The citational interface, however, doesn't run on extraction and displacement alone. It not only puts to reuse what it reads from the other but also serves to augment the positions of both authors – the one citing and the one cited – through the citational bond. A networked component – whether a cited author or a piece of machinery – is far less likely to be rendered obsolete.

The citational interface, however, is not delimited to the information intended to pass through it and the bonds intended to be forged. For example, Galloway's theorisation of technological interfaces leans heavily into the history of portraiture to make its arguments, a mode of working with and thinking about media that is also essential to Dagognet's conception of interface as face-to-face exchange. There is, by consequence, more affinity between Galloway and Dagognet than Galloway's citation acknowledges. What I show in this contribution to *Interface Critique* is how more careful historical address of the content of Dagognet's work might in the end contribute to Galloway's use of the history of portraiture to make his arguments about the unworkability of interface.

The most significant difference between Galloway and Dagognet is their contrasting views of technology and interface. Dagognet approached technology as something that could be used to overcome the limits of human perception, and saw portraits, for example, as measuring devices necessary to the development of a science of reading human psychology from the mobile surface of the body. Galloway's seminal 2008 article likewise theorised portraits – but in so doing – envisioned in them no perfectible interface. This difference

is significant, as Galloway's critique of the portrait-as-interface can be expanded to critically address Dagognet's engagement with a European history of character studies in portraiture dependent on racist, sexist, and classist methods of 'reading' character from body. In this article, I therefore take up the question as to what a better historical understanding of Dagognet's text means to continued study of the interface, especially research that takes up Galloway's challenging and significant concept of the unworkable interface.

Pellicule and Portrait

Despite their many differences, Dagognet shares with Galloway in that neither saw interfaces as open windows, uninterrupting or non-conditioning to what passes through them. Galloway leans into this in his address of Dagognet while describing his task in "The Unworkable Interface" as "not simply to illustrate the present cocktail of methodological influences necessary to analyse today's digital interfaces."[13] His reference of Dagognet is instead connected to his aim to shift the terms by which interface is understood:

```
There is no essential difference between data and algorithm,
the differentiation is purely artificial. The interface is
this state of "being on the boundary." It is that moment
where one significant material is understood as distinct
from another significant material. In other words, an
interface is not a thing, an interface is always an effect.
It is always a process or a translation. Again Dagognet: a
fertile nexus.[14]
```

Certainly, the idea of the interface as an effect works for Dagognet's address of it. The interface in Dagognet's work is an effect of

13. Galloway, *Interface Effect*, p. 30.

14. Galloway, *Interface Effect*, p. 33.

communication and emerges not only from what is made expressively legible and what is intended in communication, but as well as what is concealed, misread, and sussed out from microexpressions, context, and unintended emotions.

The site of that fertile nexus for Dagognet, however, was "in the pellicular," the body's expressive membrane or skin. As he described it, "at the interface of 'the individual and the groups which surround him' a line of division is drawn, a privileged wall (the face, the attitudes), the place of their meeting and their confrontation."[15] Though Galloway critiques Dagognet's conception of interface for its use of "the expected themes of thresholds, doorways, and windows," within *Faces, Surfaces, Interfaces*, Dagognet most heavily theorised the pellicular interface not in terms that would liken it to such architectures of *passing through*, but described it as a mask. The effect of interface is, in that case, the consequence of masking. Indeed, Dagognet's primary critique of Lavater's physiognomy is its failure to address the masking ability of facial expression: "The face-mask reveals less than it dissembles. Lavater's project must be taken up on different foundations and with different tools."[16] Dagognet's critique of Lavater included his "hazy results" as well as his "uncriticized intention to grasp the psyche immediately when [the psyche] constantly disguises itself and escapes."[17] As Dartigues notes, Dagognet turned to photography as a solution, picking up the work of French photographer Pierre Abraham "who he referred to

---

15. "A l'interface de 'l'individu et des groupes qui l'en- tourent' se dessine une ligne de partage, une paroi privilégiée (le visage, les attitudes) lieu de leur rencontre et de leur affrontement." Dagognet, *Faces, Surfaces, Interfaces*, p. 38.

16. "En tout état de cause, le visage-masque révèle moins qu'il ne dissimule. Il faudra reprendre sur d'autres bases et avec d'autres instruments le projet lavatérien." Dagognet, *Faces, Surfaces, Interfaces*, p. 117.

17. Dartigues, Le retour d'une 'demi-erreur'?, para 21; Dagognet, *Faces, Surfaces, Interfaces*, p. 117.

as a 'photo psychologist'."[18] In this, Dagognet in a sense repeated the method of Lavater, who much earlier drew upon the profile-drawing method of Étienne de Silhouette, used prior to the invention of photography to discern the intimate details of character for his many enthusiastic followers.[19]

Dagognet supported Lavater's belief in the mechanical image as a facial reading device, proposing that technological progress could then translate into ever more refined mechanisms of discernment. Laying down the case for this, Dagognet wrote:

```
Let's not forget that a subject is partly equivalent to its
image. [This image] may be blamed for all kinds of trouble:
its inertia, a poverty so patent it sometimes provokes
laughter, the extreme pallor of such a reflection. All the
same, this "mechanical portrait" already steals a little
of what we are and encloses it. The proof? It allows for
identifying a subject that, like it or not, is reduced to
a few lines and graphic indications (an outline, a relief,
shadows, undulations, wrinkles, etc.). And if this confused
image allows for recognition—which precedes knowledge—that
is because the psyche is in some way complicit with it.[20]
```

As Dagognet describes it, into this relation between psyche, portrait, and face, Pierre Abraham, "dares to experiment with this 'reflection,' which he manipulates, divides, and puts back together."[21] Splitting apart and reassembling the left and right halves of faces with their

---

18. Dartigues, Le retour d'une 'demi-erreur'?, para 22.

19. Ibid.

20. "N'oublions pas qu'un sujet équivaut partiellement à son image. On peut l'accuser de toutes les misères: son inertie, une pauvreté si patente qu'elle soulève parfois le rire, l'extrême pâleur d'un tel reflet. Il n'empêche que ce 'portrait mécanique' dérobe déjà et enferme un peu ce que nous sommes. La preuve? Il per- met l'identification d'un sujet, réduit, bon gré mal gré, à quel- ques lignes et indices graphiques (un contour, un modelé, des cernes, des ondulations, des rides, etc.). Et si cette trouble 'image' permet la reconnaissance - qui précède la connais- sance - c'est bien que le psychisme se trouve quelque part en connivence avec elle." Dagognet, *Faces, Surfaces, Interfaces*, p. 118.

21. Ibid.

mirror images, Abraham interfered with the likeness of portrait to portraited in order to expose – as Dagognet proposes it – some psychological truth written in the asymmetries between the "dextrous" and "sinister" sides.
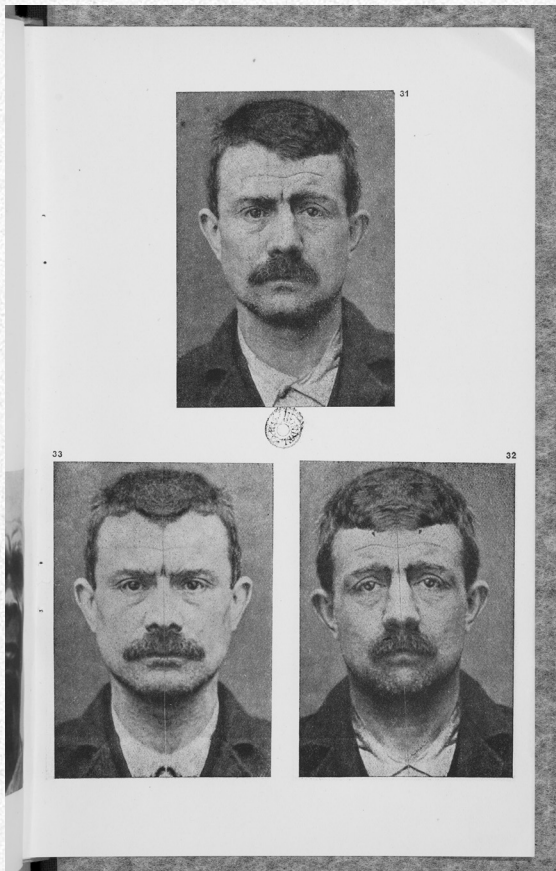

Fig. 1: Triple portrait from Pierre Abraham's *Une Figure, Deux Visages*. Initial portrait followed by the mirrored left and right halves of the face.

As Dagognet wrote, "these two new figures reveal expressions that are as distinct from one another as they are [only] very weakly apparent: the natural given drowns the divergence. Lavater had already noted the existence of this subtle dissymmetry: now it is exploited directly [and] associated with the psychophysiology of the twofold brain as well. The ambiguity of the human is as it were laid bare of laid flat"[22]

22. Dagognet, *Faces, Surfaces, Interfaces*, pp. 118-119.

Within Galloway's work, however, the portrait and its manipulations are explored not for an exposure of the person portraited, but for an interference with the politics of perspective. Comparing the "Triple Self-Portrait" of Norman Rockwell to its facetious Mad Magazine counterpart ("Alfred E. Neuman's self-portrait"), Galloway writes of "two ways of thinking about the same problem."[23] While Rockwell's image (fig. 2) "puts the stress on a coherent, closed, abstract aesthetic world," the one from Mad Magazine (fig. 3) instead "returns forever to the original trauma of the interface itself."[24] Galloway's work surfaces the trauma of the interface as an aesthetic device through which the matter-of-factness of the image has been broken down enough to be queried. An incoherent image, Galloway argues, refuses to naturalise the perspective of its viewer. It does not arrange itself around the viewer's expectations but shows the mechanism of viewer expectations by undermining it.

Dagognet is also concerned with refusing the naturalness of perspective. In drawing from Abraham's work, Dagognet shows how the face (and not merely its portrait) is itself adept at playing with the expectations of its viewers. Abraham's manipulated portraiture introduces the coherence of a balanced face that is also incoherent, in that it is no longer the face of the portraited. Dagognet's argument is that this coherent incoherence acts to query the face's duplicity. Each side of the face, duplicated and made into the whole face, argues Dagognet, produces a clearer, less muddled emotional statement.

While, in the manipulation of the portrait, Dagognet seeks to produce a means for coherent reading of the embodied interface, Galloway instead seeks to differentiate the coherence and

---

23. Galloway, *Interface Effect*, p. 39.

24. Ibid.

incoherence of the mediated interface, or image itself. In other words, for Dagognet, mediation is explored as a reading device for the politics of bodies, while for Galloway, media reflect certain mixtures of aesthetics and politics—images, for Galloway, do not read bodies, but partake in their social milieu. Galloway's investigation of the media interface as aesthetic and political conflicts with Dagognet's pursuit of portraiture as an instrument by which the subject might be, through capture and abstraction, decoded.
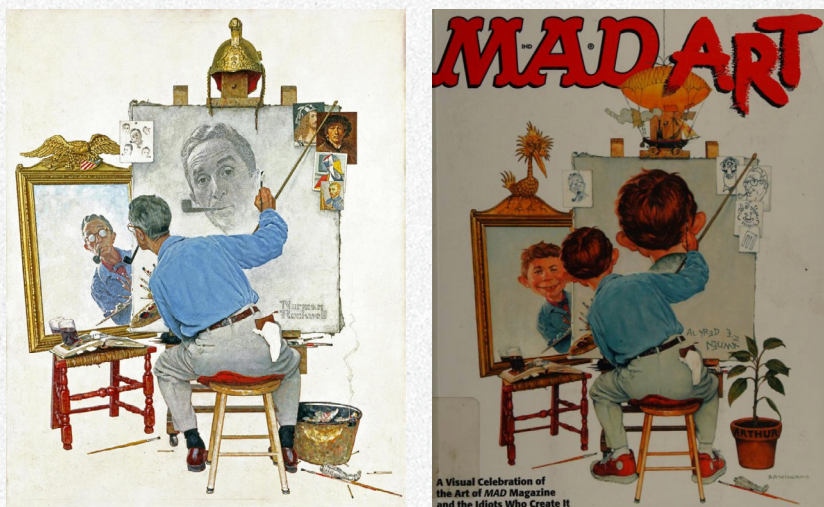

Fig.s 2 & 3 (Above): Figures 1.1 and 1.2 from Alexander Galloway's "*Unworkable Interface*". (Left) Norman Rockwell's 1960 "Triple Self Portrait", (Right) Richard A. Williams, "Untitled (Alfred E. Neuman Self-Portrait)" for Mark Evanier's *Mad Art* (New York: Watson-Guptill, 2002).

While Dagognet hopes that the portrait photograph might provide means to manipulate from the face a semblance of truth otherwise concealed in the facial talent of masking, Galloway's analysis understands portraiture as yet another zone of masks. In the portrait, Dagognet seeks information that can be rendered available to scientific identification, while Galloway pursues a material history saturated in shifting social relations, a politics of depiction.

If opposed in their understanding of the mediated image and its power, Galloway's concept of unworkability of the interface is significant to Dagognet's pellicular realm of facial expressions, and vice versa. In the simplest sense, the masking Dagognet attributes to faces Galloway finds in media forms. Indeed, Galloway describes masking as a sham of aesthetic coherence that attempts to conceal the breakage that interfaces impose. As a self-portrait painted not from Rockwell's position but "from the viewer's subjective vantage point", Rockwell's "Triple Self-Portrait" (fig. 2) masks its interface within the perspective of the viewer, and thus "addresses itself to the theme of the interface" by naturalising the viewer's position.[25] Against this, the Mad Magazine image (fig. 3), "reveling in the disorientation of shattered coherence [...] makes no attempt to hide the interface."[26] The viewer is confronted with an image that looks back at them, directly mocking their position, refusing to adhere to a perspective that would feel natural to the viewer by hiding itself within the viewer's expectations of perspective.

Describing something akin to Dagognet's concept of masking, Galloway discusses differences between interface behaviours in the first image of Rockwell and the second image of Mad Magazine: "The first [Rockwell] aims to remove all material traces of the medium, propping up the wild notion that the necessary trauma of all thresholds might be sublimated into mere 'content,' while the second [Mad Magazine] objectifies the trauma itself into a 'process-object' in which the upheaval of social forms are maintained in their feral state, but only within the safe confines of comic disbelief."[27] Galloway

---

25. Ibid.

26. Ibid.

27. Galloway, Unworkable Interface, p. 949.

describes this difference further as that which separates a "coherent aesthetic" from an "incoherent aesthetic" – following the formulation or the breakdown, the *studium* or *punctum*, "territorialization" or "deterritorialization."[28] Using different terms, working in entirely different realms of interface, Dagognet and Galloway both produce theories of interface that pose it as an interruption variously engaged with the possibilities of masking and unmasking.

Nonetheless, the unworkability Galloway describes of interfaces thus becomes a relevant critique of Dagognet's vision of a science of facial reading. The unworkable interface intervenes in Dagognet's "fertile nexus" precisely where Dagognet envisions technologies of body-reading. In other words, regardless as to whether you look at a face your own two eyes or through the *mise en abyme* of a photographer's lens, faces and interfaces alike produce masking effects, and the full humanity of the person before you cannot be rendered uninhibited to the surface of these veiled zones of exchange. When faced with the inability to dive into psychological depths via face-to-face interactions, Dagognet turned with hope to the insights of technological intervention. Faced with the interpretative, biased, and intervening characteristics of media, Galloway doesn't by consequence turn back, with hope, to bodies and embodied engagement for unhindered truth. Instead, he introduces the *intraface* – interface to relations between the media and the social milieu – to emphasise the entanglement of mediation with context:

```
This is not to say that "incoherence" wins out in the
end, invalidating the other modes. Simply that there will
be an intraface within the object between the aesthetic
form of the piece and the larger historical material
```
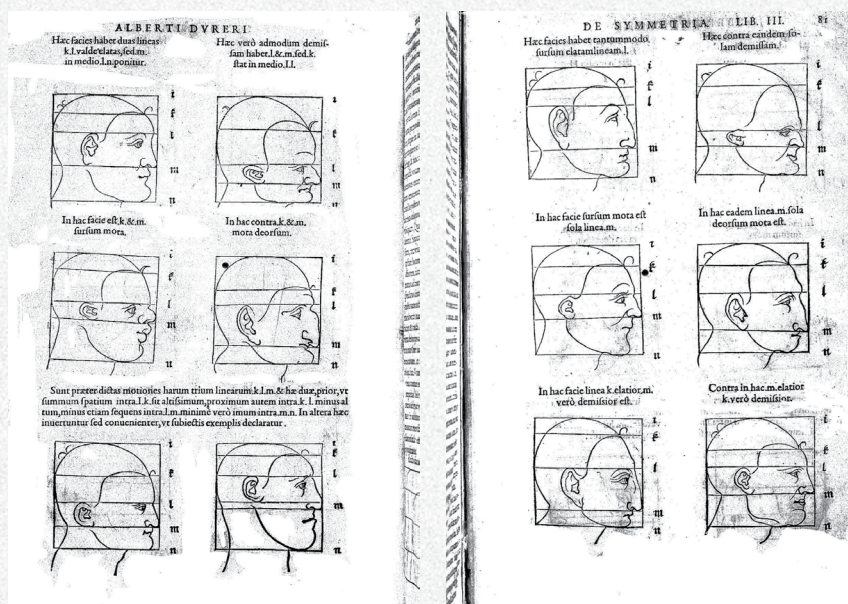
---

28. Galloway, Unworkable Interface, p. 950.

context in which it is situated. If an "interface" may be found anywhere, it is there. What we call "writing," or "image," or "object," is merely the attempt to resolve this unworkability.[29]

Galloway's address of aesthetics and historical context, reification and unworkability, centres resolutely around media history. Nonetheless, Galloway's citation of Dagognet — used to further his investigation of portraiture — hinges open an *intraface* between the art history of portraiture and the history of physiognomy, rendering the unworkability of interface into relation with the illegibility of bodies.

Fig.s 4 & 5 (Above): Tripartite images of facial proportions from Dürer's *De symmetria partium humanorum corporum libri quatuor*, translated from the Latin into German by Joachim Camerarius the elder. Parisiis: In officina Caroli Perier, 1557. Public Domain. https://wellcomecollection.org/works/vwqdqs8n

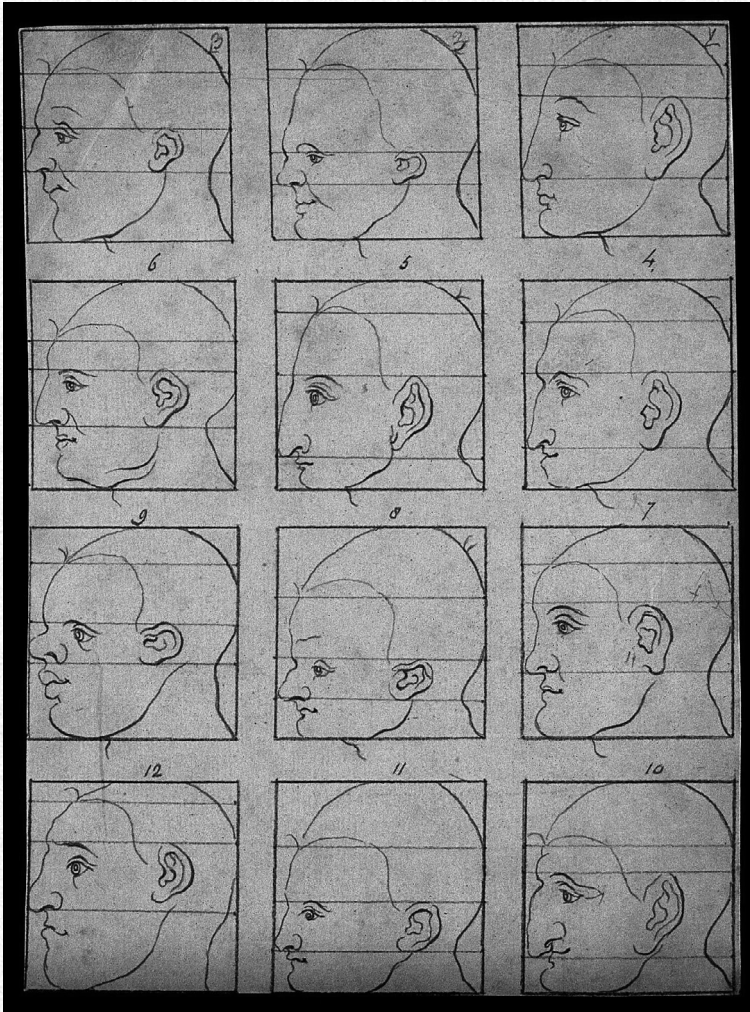29. Galloway, Unworkable Interface, p. 954.

Fig. 6 (Above): Twelve human profiles in outline, sectioned to show their disproportion. Drawing, c. 1794, after A. Dürer. As described by the Wellcome Collection, "Lavater entitles this image 'Caricaturas, after the Anthropometry of A. Dürer'. He uses it to illustrate his principle that the "disproportion in the parts of the face has an influence on the physiological constitution of man. ... Will the most determined Anti-physionomist ... presume to say, that these physionomies are noble, distinguished, and intelligent. No such, and the reason of it is obvious. They all deviate from the usual proportions, and such a deviation necessarily produces disgusting forms and features". Public domain, courtesy of the Wellcome Collection. https://wellcomecollection.org/works/xfw5yqyp

With an image of Albrecht Dürer, the historical contours of this *intraface* are signalled in the Rockwell and Mad Magazine portraits Galloway uses in his analysis of the unworkable interface. Rockwell's image references the self-portrait of Dürer (alongside those of Rembrandt and van Gogh) by including small clippings of famous self-portraits on the artist's drawing board, where they assumedly serve as "artist inspiration" for Rockwell, depicted at work. The Mad Magazine rendition then echoes this reference, though Richard Williams replaces Dürer's self-portrait with Rockwell's face – though it is (fittingly) the imperfect, bespeckled one from the mirror rather than the idealised version Rockwell's "Triple Self-Portrait" depicts as in-process on paper. If Dürer provides self-portrait source material for Rockwell to Mad Magazine's portraited iterations central to Galloway's investigation of the unworkable interface, Dürer is also an origin figure in a citational history that, crossing from Renaissance art theory to physiognomy to media studies, ties Lavater to Dagognet to Galloway.

Giovanni Paolo Gallucci's 1591 translation of Dürer's *Four Books on Human Proportion*, including Gallucci's extended commentary, provides the Renaissance physiognomogical ideas fundamental to Lavater's later work. Dagognet, in picking up Lavater's ideas and reworking them within *Faces, Surfaces, Interfaces*, included Dürer's drawings of facial proportions (as found in Lavater's earlier work). Galloway, without really digging into the physiognomical sources informing Dagognet's concept of interface, nonetheless draws Dagognet into his analysis of a pair of portrait iterations that point back to Dürer. Perhaps accidentally, Galloway completes a loop. From the position of scholarly analysis, he draws his approach in close to the irreverent critique displayed in Mad Magazine's self-

portrait, providing a commentary on "an interface that is unstable. It is, as Maurice Blanchet or Jean-Luc Nancy might say, *desoeuvre* – nonworking, unproductive, inoperative, unworkable."[30] In a media history of the interface between bodies and media forms, his analysis of instability or unworkability counterbalances that of Gallucci, whose translation and analysis of Dürer focussed instead upon balance and proportion as fixed and lasting components of beauty and as universal markers of character.

Nonetheless, the Mad Magazine portrait's play with the instability of interface does not in so doing otherise it from Dürer's legacy. Indeed, the figure of Alfred E. Neuman, with enlarged head, rounded cheeks, protruding ears, shrunken chin and wide mouth, presents a caricature easily positioned within an artistic heritage beholden, in part, to Dürer's explorations of distortions of facial proportion and grotesque peasant embodiment. Both Dagognet and Lavater engage with a collection of Dürer-inspired faces in profile called "Caricaturas" (fig. 6). This supplies the core of my argument in the next section: That profiles, and profiling, in the history of facial-technological interfaces, is rooted in notions of characterisation (and, by consequence, caricature). As the historian of physiognomy Paolo Gervasi has written:

```
Caricature compares here, at the heart of the history of
physiognomy, as a sort of stress-test challenging a final
and conclusive definition of humanity. Georg Christoph
Lichtenberg rejected Lavater's physiognomy entirely, arguing
that the meanings we read on a face are determined by
subjective gazes, projective drives, individual experiences.
Our will to knowledge about the human face automatically
misshapes it. In a way, we always draw caricatures while
```

---

30. Galloway, *Interface Effect*, p. 39.

```
we try to make sense of a human body. Not by chance,
Lichtenberg was a humourist, a writer of satirical
aphorisms.[31]
```

As Gervasi further notes, caricaturists including Francis Grose, Thomas Rowlandson, and Rodolphe Töpffer discussed (and artistically explored) how caricatures are tied to the history of physiognomy and vice versa. Beyond this, "Caricatures keep the natural language of physiognomy alive, by claiming the paradoxical seriousness of an archaeological wisdom according to which the authentic nature of a person can be divined by analysing his/her body and face".[32] Caricatures inform the history of portraiture, the history of facial reading methods, the history of physiognomy. Dagognet and Galloway's different analyses, both tying portraiture to interface, contribute to an intellectual history in which theorisation of the interface is conditioned by the portrait's relation with the portraited. While Galloway's investigation deals with comedies of self-portraiture and the play with unworkability that emerges in imperfect (or falsely perfecting) self-replication, Dagognet's inquiry looks for what the portrait, in dissembling the face and its ability to mask, might unveil through mechanical intervention. Lodged within the historical contours of their source materials lurks the materials of racism, sexism, and classism.

Faces and Masks

Dürer, whose self-portrait is pinned to the corner of Norman Rockwell's "Triple Self Portrait", investigated in the sixteenth

---

31. Gervasi, Caricature as Emotional Knowledge https://blogs.history.qmul.ac.uk/litcaricature/2018/09/14/caricature-as-emotional-knowledge/, September 14, 2018, access: October 25 2023, 2:35pm.

32. Ibid.

century what proactive distortion of portraited faces could produce in art. As James Hutson wrote of Dürer's *Four Books of Human Proportion*, his results included racist caricatures. With the tripartite images of facial proportions, writes Hutson, (fig.s 4 and 5), Dürer "alters the proportions of faces and parts of the head in order to demonstrate how a normal face may be distorted to form that of a fool, African, and other 'monstrosities'."[33] Dürer's work, especially when comingled with Gallucci's late sixteenth century translation and commentary, provides an early modern exemplar of early modern racism operating through theories attempting to link face and character. Examples of the ways Gallucci explicitly relied upon racist stereotypes to articulate the physical characteristics of personality abound in his text. Gallucci racializes the "figure of a lustful, timid, and cunning man." for example, tying such a character with the physical characteristics Gallucci identifies with Iberian Muslims, many of whom were people of colour, who Gallucci describes using the derogatory term, "Moors."[34] Gallucci then immediately contrasts this racist caricature with whiteness, which Gallucci racializes instead as "good, kind, friendly, courteous, and quick to forgive."[35]

Gallucci's descriptions of how faces and bodies aligned with character further connected racist ideas with ableist ones. Such associations – which compare racialized Others with so-called 'simpletons', and 'idiots' – facilitated political cartoons with a language by which depicted bodies could signify character. Mad Magazine's figure Alfred E. Neuman is not only emblematic of this – he is indeed one of its archetypes. Alfred E. Neuman's wide grin

---

33. Gallucci, *Commentary on Dürer's 'Four Books on Human Proportion*, p. 17.

34. Gallucci, *Commentary on Dürer's 'Four Books on Human Proportion*, p. 174.

35. Ibid.

and protruding ears can be traced to a nineteenth century stock character that, as journalist Sam Sweet writes, "split and multiplied, strengthening its potency as a meme and obscuring any certain origins."[36] Writer and Researcher Maria Reidelbach identified the figure in an advertisement for mincemeat in 1895.[37] Researcher Peter Reitan further traced the character to *The New Boy*, perhaps based on the redheaded actors Bert Coote or James T. Powers, within "a comic farce that had been a smash hit in London and then New York before traveling America" at the end of the nineteenth century.[38] The New Boy became racialised in the 1930s – by then associated with the quip "What, me worry?" – in conservative political propaganda against Roosevelt and The New Deal. Some materials, assumedly playing into the racist sentiments of white voters, recast the figure into the racist caricature of a Black boy.

The New Boy is thus one of many anti-Black caricatures circulated in US print media. Such caricatures drew from a history of caricature that supplied a visual language to racial stereotypes by drawing from a history of European physiognomic thought. As Frantz Fanon wrote in *Black Skin, White Masks*, "with me things take on a new face. I'm not given a second chance. I am overdetermined from the outside. I am a slave not to the 'idea' others have of me, but to my appearance."[39] Fanon's seminal scholarship theorises the centuries of racial prejudice that contextualise vulnerable expressivity of faces

---

36. Sam Sweet, A Boy with No Birthday Turns Sixty: The long and tangled history of Alfred E. Neuman. (March 3 2016). https://www.theparisreview.org/blog/2016/03/03/a-boy-with-no-birthday-turns-sixty/, access: October 25, 2023, 4:49pm.

37. Sarah Boxer, Mind the Gap, in: *The MAD Files: Writers and Cartoonists on the Magazine that Warped America's Brain!* (New York: Library of America 2024), pp. 138–145, here p. 139, refers to Maria Reidelbach, *Completely Mad: A History of the Comic Book and Magazine* (Boston 1991); Sweet, A Boy with No Birthday Turns Sixty.

38. Sweet, A Boy with No Birthday Turns Sixty.

39. Frantz Fanon, *Black Skin, White Masks* (New York 2008 [1952]), p. 95.

and bodies into the historical material of racism. Fanon's work on racism is entangled with his wide-ranging study of colonial systems of power; Fanon deals with systematic racism. "Must I confine myself to the justification of a facial profile?," he writes in *Black Skin, White Masks*, "I have not the right as a man of color to research why my race is superior or inferior to another."[40] Physiognomic thought is, as Fanon contends, a white racist theory that could only be maintained in the case researcher legitimacy was reserved for whites alone. Fanon, as a theorist, undermined this by producing research.

Fanon's address of the white mask, the facial profile, and research of racial superiority and inferiority addresses the mid-century context of racism and its historical entanglement with colonial pseudosciences. Fanon's work also predates (and in many cases, motivates) much important research in these fields. In Dagognet's time, research of scientific racism includes the critique of racist scientistic reading of bodies and faces, such as Stephen Jay Gould's *The Mismeasure of Man* (1981), which, published one year prior to Dagognet's *Faces, Surfaces, Interfaces*, critically addressed source materials cited by Dagognet and Lavater before him. More recent work on facial recognition technologies shows that racism continues to be structured into scientific methods of facial analysis, in this case, via the software products of computer science and their vast implementation in corporate and government surveillance.

As Gérard Chazal has noted, Dagognet was against technophobia, and remained a great believer in the power of scientific measurement to study the mind as it is expressed on body surfaces and through its

---

40. Fanon, *Black Skin, White Masks*, p. 203.

relations with material contexts.[41] As Dagognet describes it:

```
No one can accomplish this kind of 'visualization' or
projection without instruments (oscilloscopes, telemetric
devices and so on). Success is possible because the mind
is unable to withdraw completely into its inner recesses.
It continues to "disperse" or to percolate to the surface.
As vigorously as one tries to constrain it — and it is
indispensable that one should — at every turn one encounters
signs of its presence. It emerges just as markedly in a
furtive sideways motility as in apparently insignificant
acts, which unexpectedly take on meaning. These minor
details become "symptoms".[42]
```

While ultimately trusting technologically-enhanced reading of bodies, Dagognet does admit inaccuracy due to bias. First listing habit and attention to content over structure as factors that "compromise this reading," Dagognet turns then to naiveté: "One thinks one can answer simple questions concerning age, upbringing, sex, even nationality. Nothing is more slippery and deceptive: one must remember the existence of 'mannish woman' and vice versa."[43] So it goes that Dagognet, pursuing an exit from the fallacies of bias and prejudice, merely formulates a wider net of biases and prejudices. The physiognomic work of Lavater that inspired Dagognet attempted to use race – alongside sex and class – as key in the process of reading bodies. While Dagognet abandoned Lavater's most overtly racist material, Dagognet's own prejudice noticeably shapes his work in turn. Focussed on articulating the concept of facial masking, for example, Dagognet launched into a stereotype of facial expression

---

41. Gérard Chazal, Philosophy and Technology in the French Tradition. The Legacy of François Dagognet, in: *French Philosophy of Technology*, ed. Sacha Love and Xavier Guchet (New York: Springer International, 2018), pp. 24, 27.

42. Dagognet, Toward a Biopsychiatry, pp. 517–518.

43. Dagognet, Toward a Biopsychiatry, p. 527.

in Chinese culture which centered on analysis of smiling. Therein, Dagognet drew from stereotypes of Chinese "overcrowding" to propose that people in China smile out of resignation.[44] He built this argument in response to European stereotypes he heard about Chinese people smiling out of rage and argues against the notion that facial expressions are too culturally situated to be analysed. I will stop short of attempting to understand his logic here, but will attempt, instead, to clarify the degree to which Dagognet, to argue for a science that would read the embodied exterior for signs of interior character, had to set aside the problems of context, history, and bias.

The moment that Dagognet attempts to address the applicability of his theory within a different social, cultural, and political context, he begins by oversimplifying Chinese culture while not accounting for his own cultural bias.[45] While marking Chinese smiling as impacted by "overcrowding" (a statement that already smacks of prejudice), Dagognet co-identifies the use of smiling as a masking effect with culture while failing to acknowledge the relationship of cultural and historical implications within his own French context. In France, for example, an open-mouthed smile bearing the teeth was considered unseemly until the French Revolution. In *The Smile Revolution: In Eighteenth Century Paris* (2014), Colin Jones further analyses Lavater's physiognomy as a scientistic retort to the French Revolution, pointing to the ways that Lavater's text, responding to

---

44. Dagognet, *Faces, Surfaces, Interfaces*, p. 95.

45. The article, Implicit Racial Attitudes Influence Perceived Emotional Intensity on Other-Race Faces, argues that perception of negative emotional intensity is shown to be heightened when a viewer perceives the expression on the face of a person of a different race. See: Quiandong Wang, Guowei Chen, Zhaoquan Wang, Chao S. Hu, Xiaoqing Hu, Genyue Fu, Implicit Racial Attitudes Influence Perceived Emotional Intensity on Other-Race Faces, *PLoS ONE* 9[8] (2014), pp. 1-6, https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0105946, access: October 25. 2023, 4:52pm.

the democratic ideals of the French Revolution, re-inscribed the moral superiority of economic elites within physiognomic principles. With the French Revolution beginning in 1789, argues Jones, "the smile had seemed a unifying and democratic gesture, and had had cultural edge, socially progressive aims, and political intent."[46] Jones further contends that open-mouthed smiling was not culturally acceptable in Europe until advances in dentistry, art, and politics in Paris that, "generated new ways of thinking about teeth, and new ways of presenting them to the world. This shift in social practices and in sensibilities involved the emergence of the perception, common in our own day, that the smile offered a key to individual identity."[47]

By the Reign of Terror (*la Terreur*) beginning in 1793, which resulted in the execution of approximately 16,000 people suspected of revolutionary ties by 1794, the popularity of the open-mouthed smile as a democratic gesture was inhibited for political reasons. Jones further credits Lavater's physiognomy as a factor that contributed to the suppression of the smile. Lavater's emphasis on the hard and fast features of the face over "passing expression" downgraded the meaning of the smile and reinstituted a more deterministic perspective on character.[48] As Jones addresses, Lavater highlighted the health of a person's teeth as indicative of their moral character. While clean, straight teeth were evidence of, "a sweet and polished mind and a good and honest heart," bad teeth tended to signify "either sickness or else some melange of moral imperfection."[49] Lavater's analysis of the teeth realigned moral goodness with wealth.

---

46. Colin Jones, *The Smile Revolution: In Eighteenth Century Paris* (New York 2014), p. 152.

47. Jones, *The Smile Revolution*, p. 2.

48. Jones, *The Smile Revolution*, p. 153.

49. Ibid.

As Jones notes, Lavater's theory further maligned smiling, re-connotating a gesture highly entangled with the Revolutionary spirit as signifying "scorn, derision, disdain and irony."[50]

Lavater's physiognomy is indicative of the long relationship between the science of facial analysis and the politics of oppression. Lavater's physiognomy sought to reinstate classist oppression of French Revolutionary *fraternité*. The relationship between science and the politics of oppression continues, for example, in the form of implicit racial bias within developing technologies of facial-reading software. Machines developed to differentiate between faces reproduce, rather than overcome, racial bias in myriad ways.

In 2017, Artificial Intelligence researcher and founder of the Algorithmic Justice League Joy Buolamwini showed racial bias as coded into AI facial recognition. As a Black woman, Buolamwini found that the software would not recognise her face. Indeed, through experimentation she showed that the algorithm would fail to recognize her face as human until she covered it with a white mask. "I found wearing a white mask worked better than using my actual face", she noted, "I asked about the code that they used and it turned out we'd used the same open-source code for face detection – this is where I started to get a sense that unconscious bias might feed into the technology that we create."[51] Buolamwini's research showed that Fanon's metaphor of the white mask had been algorithmically catapulted by anti-Black bias into literalism.

---

50. Ibid.

51. Ian Tucker, Interview: 'A white mask worked better': why algorithms are not colour blind. *The Guardian* (28 May 2017), https://www.theguardian.com/technology/2017/may/28/joy-buolamwini-when-algorithms-are-racist-facial-recognition-bias, access: 7 September, 2023, 3:08 pm.

For the AI algorithms Buolamwini critiqued in 2017, the darkness of skin excluded a face from being portraited, and thus from recognition by the interface. Research on the racism of facial recognition AIs has since expanded, exploring further issues of coded racial bias and the real detrimental effects of that bias – including mistaken identity – in surveillance and policing.[52] Much of the work of the Algorithmic Justice League on Facial Processing Technologies (FPT) and Facial Recognition Technologies (FRT) has focussed on showing how these are structured in ways that potentially escalate systematic racism even while presenting as unbiased and not subject to human error. In "Facial Recognition Technologies" Buolamwini, Ordóñez, Morgenstern, and Learned-Miller turn from FRT to further address problems with "emotion recognition" software:

```
When a facial recognition system reports "happy" as a label
for a face, in most cases this refers to an expression like
a smile, not to the true emotional state of the individual.
It is important to keep in mind that many systems that claim
to do emotion recognition have really been developed to
recognize specific facial expressions (as performed by paid
actors), not to detect the subtle cues that may reveal a
person's underlying emotional state.[53]
```

It seems that the highly-advanced technology of facial recognition yet fails to transform the recognition of facial expressions into meaningful readings of actual emotions. As it stands, Dagognet's vision of unmasking expressive bodies via technological means remains mired in the pursuits of racist pseudosciences. Fanon's

---

52. Timnit Gebru, Race and Gender, in: *The Oxford Handbook of Ethics of AI*, ed. Markus D. Dubber, Frank Pasquale, and Sunit Das (New York, 2019), pp. 253-270; Joy Buolamwini, Vicente Ordóñez, Jamie Morgenstern, and Erik Learned-Miller, Facial Recognition Technology: A Primer. *Facial Recognition Technologies in the Wild: A Call for a Federal Office* (2020), p. 5. https://www.ajl.org/federal-office-call, access: December 22, 2022, 4:00pm.

53. Joy Buolamwini, Vicente Ordóñez, Jamie Morgenstern, and Erik Learned-Miller, Facial Recognition Technologies, p. 5.

critique of the white mask and systems of racial prejudice contributed to a tradition of Black scholarship that by now has tracked racist deletion and racist identification in many manifestations, which have misread Blackness, aiming to produce from it – over the course of centuries – both a judged skin and an algorithmically obliterated humanity.

Conclusion

What I have endeavoured to do here is show how a subterranean history tying portraiture, caricature, scientist facial reading runs through historical theorisation of the interface. The citational interface between Galloway's work and Dagognet's speaks to the lasting importance of theories of embodiment to media studies research. By connecting citational dots, considering the shifting and changing landscape of approaches to facial legibility and portraiture, this history aims to enrich and build upon Galloway's work. Galloway's analysis of the unworkable interface through the work of Dagognet and self-portraits of Rockwell and Alfred E. Neuman point to a wider history in which artistic grappling with the legibility of character in countenance informed scientific approaches and technological attempts at profiling that were (and are) susceptible to Galloway's line of critique. Thus, Dagognet's work provides Galloway more than an interesting quote – it exemplifies in its theory of body legibility the problematic Galloway identifies with visual media.

While Galloway's work concerned itself with depiction in visual media to propose aesthetics of coherence and incoherence as interwoven in art with politics of coherence and incoherence, Dagognet, as predecessor, imagined depiction in visual media as a force that, through capture and abstraction, could cut through the seeming

incoherence of the expressive body itself. Meanwhile, the materials Galloway and Dagognet used were (and are) historically entangled, most concretely through Dürer, whose facial 'Caricaturas' inspired Lavater, and by consequence, Dagognet. Dürer depicted as pinned-up inspiration within Rockwell's "Triple Self-Portrait", produced experiments in caricature and facial distortion that are ancestral the cartoon figures of later centuries, like Alfred E. Newman ("The New Boy"), as well as to physiognomic pseudoscience.

In 1992, when François Dagognet's "Toward a Biopsychiatry" from *Faces, Surfaces, Interfaces* was first translated to English for the Zone Books compendium *Incorporations*, the chapter seemed a harmless if interesting explication of Dagognet's fundamental thesis that "the body is the unconscious."[54] The piece heavily framed embodiment into terms popular within media studies at the time, highlighting virtuality, visualisation, and interface as body-oriented concepts.

Dagognet's work on interface wished to expel a history of research on suppression, psychological depths, and the unreachable interiors of human experiences, proposing instead that careful and precise measurements of expressive body (especially facial) surfaces following the theoretical lines he set forth could find human psychology described upon human surfaces. Such a desire connects deeply to the history of portraiture, and thus to the history of depicting faces. While it extends beyond the current purposes of facial recognition software, it seems almost inevitable that facial reading software will participate in a return of physiognomy.

By now, theorization of digital interfaces not only grapples with the incongruity of coded interiors and touchscreen exteriors, but user

---

54. François Dagognet, Toward a Biopsychiatry, in: *Incorporations*, ed. Jonathan Crary and Sanford Kwinter (New York: Zone Books, 1992), pp. 516–541, here p. 518.

interfaces are by now studied for the ways they are programmed to make use of our faces. Facial recognition and AI are already shown to respond to our faces in ways that are structured by the codes of racism. The encoding of facial meaning into racist matrices is not only systematic, and not only evidential of a history of scientistic racism, but is deeply intimate, and deeply troubling as such.

Current research that builds on Galloway's work, then, should take these developments into account, endeavouring to further query how the problematics of interface cross the body-technological divide in ways more complex and mutually inflected than concepts which perceive interface relations as those of users who engage with technology to retrieve mediated content. In the end, the questions that drive continues studies in interface – the concealment of operations behind smooth surfaces, the expressive act of masking, the problem of accounting for isolated being and connection across difference – are corporeal problems.

<p style="text-align:center">* * * * *</p>

<p style="text-align:center">‹END›</p>

References

Abraham, Pierre, *Une Figure, Deux Visages* (Paris: La Nouvelle Revue Française no. 246, 1934).

Booth, Austin and Mary Flanagan (ed.), *Re: Skin* (Cambridge: MIT Press, 2009).

Boxer, Sarah, Mind the Gap, in: *The MAD Files: Writers and Cartoonists on the Magazine that Warped America's Brain!* (New York: Library of America 2024), pp. 138–145.

Buolamwini, Joy, Vicente Ordóñez, Jamie Morgenstern, and Erik Learned-Miller, Facial Recognition Technology: A Primer. *Facial Recognition Technologies in the Wild: A Call for a Federal Office* (2020). https://www.ajl.org/federal-office-call. Access: December, 2022, 4:00pm.

Carmes, Maryse, *Les fabriques numériques de l'organisation* (London: Hermes Science Publishing, 2017).

Century, Michael, *Northern Sparks: Innovation, Technology Policy, and the Arts in Canada from Expo 67 to the Intern Et Age* (Cambridge: MIT Press, 2022).

Chazal, Gérard, Philosophy and Technology in the French Tradition. The Legacy of François Dagognet, in: *French Philosophy of Technology*, ed. Sacha Love and Xavier Guchet (New York: Springer International, 2018), pp. 23–35.

Dartigues, Laurent, Le retour d'une 'demi-erreur' ? De la physiognomonie selon François Dagognet à la nouvelle psychiatrie. *Astérion* (2018), http://journals.openedition.org/asterion/3161, access: February 3, 2023, 9:20pm.

Dagognet, François, Toward a Biopsychiatry, in: *Incorporations*, ed. Jonathan Crary and Sanford Kwinter (New York: Zone Books, 1992), pp. 516–541.

Dagognet, *Faces, Surfaces, Interfaces* (Paris: Vrin, 1982).

Dürer, Albrecht and Giovanni Paolo Gallucci, *Della simmetria dei corpi humani, libri quattro* (Venice: Nicolini, Domenico, da Sabbio, 1591).

Dürer, Albrecht, *De symmetria partium humanorum corporum libri quatuor*, translated from the Latin into German by Joachim Camerarius the elder (Paris: Caroli Perier, 1557).

Evanier, Mark, *Mad Art: A Visual Celebration of the Art of "MAD" Magazine and the Idiots Who Create It* (New York: Watson-Guptill, 2002).

Fanon, Frantz, *Black Skin, White Masks* (New York: Grove Press, 2008 [1952]).

Galloway, Alexander, *The Interface Effect* (Cambridge: Polity Press, 2012).

Galloway, The Unworkable Interface, in: *New Literary History* 39 [4] (2008), pp. 931-955.

Gallucci, Giovanni Paolo, Gallucci's Commentary on Dürer's Four Books on Human Proportion, translated with an Introduction by James Hutson (Cambridge, UK: Open Book Publishers, 2020).

Gebru, Timnit, Race and Gender, in: *The Oxford Handbook of Ethics of AI*, ed. Markus D. Dubber, Frank Pasquale, and Sunit Das (New York: Oxford University Press, 2019), pp. 253-270.

Gervasi, Paolo, Caricature as emotional knowledge, Presentation given at the Mis-Shaping conference, Queen Mary University. *Misshaping by Words: A blog on literature and caricature* (an online diary of the research project *Misshaping by Words. Literary Caricature between Texts, Images, and Mental Models*), September 14, 2018, https://blogs.history.qmul.ac.uk/litcaricature/2018/09/14/caricature-as-emotional-knowledge/, access: October 25, 2023, 2:35pm.

Gorvett, Zaria, There are 19 types of smile but only six are for happiness, in: *BBC Future*, 10th April 2017, https://www.bbc.com/future/article/20170407-why-all-smiles-are-not-the-same, access: December 20, 2022, 12:00pm.

Gould, Stephen Jay, *The Mismeasure of Man* (New York: W.W. Norton & Co., 1981).

Hutson, James, *Gallucci's Commentary on Dürer's 'Four Books on Human Proportion': Renaissance Proportion Theory* (Cambridge: Open Book Publishers, 2020).

Jack, Rachael E., Oliver G.B. Garrod, Hui Yu, Roberto Caldara, and Philippe G. Schyns, Facial expressions of emotion are not culturally universal. *PNAS* 109[19] (2012), pp. 7241–7244, https://doi.org/10.1073/pnas.1200155109, access: September 13, 2024, 6:09pm.

Jones, Colin, *The Smile Revolution: In Eighteenth Century Paris* (New York: Oxford University Press, 2014).

Korsten, Frans-Willem, *Art as an Interface of Law and Justice* (New York: Bloomsbury, 2021)

Krett, Mariska and, Beatrice Gelder, When a smile becomes a fist: The perception of facial and bodily expressions of emotion in violent offenders. *Experimental Brain Research* 228[4] (2013), pp. 399–410.

Lavater, Johann Casper, *Essays on physiognomy, calculated to extend the knowledge and love of mankind. Written by the Rev. John Caspar Lavater. Translated from the last Paris edition by the Rev. C. Moore. llustrated by several hundred engravings, accurately copied form the originals* (London: W. Locke, 1794).

Lavater, Johann Casper, *Von der Physiognomik* (Leipzig: Bey Weidmanns Erben und Reich, 1772).

Maalouf, Jihad, *Interface: Essai sur le geste d'amour* (Paris: Editions L'Harmattan, 2015).

Ratta, Donatella Della, Geert Lovink, Peter Sarram, and Teresa Numerico (ed.), *The Aesthetics and Politics of the Online Self* (London: Palgrave Macmillan, 2021).

Reidelbach, Maria, *Completely Mad: A History of the Comic Book and Magazine* (Boston: Little, Brown and Company, 1991).

Sweet, Sam, A Boy with No Birthday Turns Sixty: The long and tangled history of Alfred E. Neuman. *The Paris Review* (2016), https://www.theparisreview.org/blog/2016/03/03/a-boy-with-no-birthday-turns-sixty/, access: October 25, 2023, 4:49pm.

Tucker, Ian, Interview: 'A white mask worked better': why algorithms are not colour blind. *The Guardian* (28 May 2017), https://www.theguardian.com/technology/2017/may/28/joy-buolamwini-when-algorithms-are-racist-facial-recognition-bias, access: October 6, 2023, 3:08 pm.

Wang, Quiandong, Guowei Chen, Zhaoquan Wang, Chao S. Hu, Xiaoquing Hu, and Genyue Fu. Implicit Racial Attitudes Influence Perceived Emotional Intensity on Other-Race Faces. *PLoS ONE* 9[8] (2014), pp. 1-6, https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0105946, access: October 25. 2023, 4:52pm.