Photographs, Words and the Noise in-between

We don't need to go back to Vilém Flusser and revive the old querelle between textolatry and idolatry to be aware that words and images continue to be, or belong to, irremediably opposed systems of communication. At times an armistice seems imminent, the conflict assuaged by the reciprocal need for collaboration imposed by audiovisual culture, but the semioticians will be quick to remind us that words and images belong on different planes of language, so that the best they can hope for is a mutual delimitation of meaning. The problem is to define their tasks and in so doing establish a hierarchy. A lot of my work fosters alliances and tensions between photograph and text, and one of the things that have always impressed me most is that in social life the image is never isolated and autocratic. On the contrary, it needs to create complicities with a host of other elements in its immediate environment: its position in a constellation composed of other images; the space in which it lives; its relationship with the architecture or with the printed page, its material support ... and, above all, its relationship with the text. It is to the modalities of this relationship that I would like to direct attention: the 'noise' that its interdependence generates.

I would like to consider the following case study. One of the most widely disseminated images associated with the 50th anniversary of the Apollo XI landing on the Moon is that of Buzz Aldrin's footprint in the dust of the Sea of Tranquility (#AS11-40-5878 in the NASA catalogue). It is certainly an iconic image, one that has taken root in the collective imaginary and moved generation after generation with its strong symbolic charge: it is the unequivocal demonstration not only of a great achievement – 'one giant leap for mankind' – but also of a conquest that inaugurates a new perception of the limits – 'always a little further'. That footprint concentrates all the emotion and mortal danger of an adventure witnessed live, in which every viewer felt they had a right to a share of the credit simply by belonging to the generation which had set itself the challenge and triumphed. Seen in perspective, that footprint is testimony to the triumph of the will and of cour-





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age, we should not forget that it also stands for the propaganda and the internecine politics of the Cold War.

Re-examining the symbolic power of that human mark in the dust of the Sea of Tranquility, Professor Joan Costa - a friend of Flusser's - invites us to see it as an overvalued image which has eclipsed another, very similar and considerably earlier image; one that has had much less media impact but unquestionably marks something far more important for the progress of humanity. This image is the oldest known human footprint, discovered in 2007 at Ileret, in north-western Kenya, by a team of paleoanthropologists from Bournemouth University and the Rutgers University Koobi Fora Field School. In a layer of sediment at what was once the muddy shore of a lake, the researchers found numerous footprints left by animals and archaic humans, which had been petrified, turned to stone by the patient action of geological time: the site preserved a snapshot many millennia old of a hunting scene featuring antelope and wildebeest and a band of Homo erectus, a species of hominid which lived one and a half million years ago and is considered a direct ancestor of the Neanderthals and of present-day humans.

The footprint in the Sea of Tranquility speaks to us of the conquest of space; but its predecessor in the lleret mud tells a story of the conquest of intelligence. It is now an accepted fact that it was when primates stood upright to become bipedal that the extremities of their upper limbs began to evolve from rudimentary claws into highly versatile and skilful hands, no longer limited to basic actions of pressure or aggression, with an enormous

diversification and sophistication of function. The liberation of the hands and the necessary fine coordination of hand with eve and brain gave an exceptional boost to the development of intelligence, which was very quickly manifested in the production of tools and weapons and the emergence of what we call 'culture'. Moreover, the manual skills involved in fashioning artefacts also facilitated the development of gestural signs as part of the most primitive system of human communication: the embryo of the first language. Gesture – that is, the production and perception of certain visual cues and therefore the image of body movements - was present at the birth of language. And, taking this thought a step further, it was probably also present at the birth of thought. In effect, our first language was visual and specifically gestural. Now, when we ask ourselves what was behind that instinctive impulse of interaction, we have to turn to neurobiology, and there we find that the formation of the nervous system, with the brain as its central nucleus, very slowly engendered mind. which is a function of the brain. But what constitutes mind? According to Costa, images, Images grew the human mind; they have formed and nourished it over millions of years. The nervous system receives sensory stimuli in the form of chemical and electrical signals (perceptions) and transmits these to the brain, where they are processed and recombined in images. Obviously, these are not retinal images or 'literal' representations but sets of neuronal signals which the brain understands: they are schemata, and it is these mental schemata that shape the way we make decisions, along with many other aspects of our behaviour.1 It can be said, then, that what made us human (consciousness, thought) came about through the management of images. The paradox here is that one and a half million years of evolution have served to surrender the realm of thought to verbal language. We have ended up bestowing the hegemony of reflection on words: we live in a logocentric culture, and we have palpable proof of this in the Internet. That duplicate of and metaphor for the world is an eminently visual domain in which, paradoxically, almost every process is performed by way of letter keys. Our interface with reality is textual, and we even engage with the world of images through words. For example, to locate a graphic content we use a hashtag, which is a combination of alphanumeric symbols, usually a word or an unpunctuated sequence of words.

At this point we might pause to look at how the correspondence between words and images is established in the Internet universe, an investigation in which a number of artists have been

¹ Joan Costa, Esquematismo. La eficacia de la simplicidad, Barcelona 2019.



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involved, with a view to analysing the contexts of signification and exploiting the spaces of ambiguity inherent in these modes of translation, these leaps from word to image and vice versa. An eloquent example of this endeavour is Memories Center (2014-2015), a project by Grégory Chatonsky and Dominique Sirois. Quite a few cutting-edge neurological research labs are currently exploring the possibility of visualising brain activity by means of simple figurative images, and to judge by the latest experimental breakthroughs, the sci-fi fantasy of a 'machine for projecting dreams' is already beginning to come true. Chatonsky and Sirois set out to achieve something very similar by way of a poetic shortcut. In Memories Center (2014-2015) the artists have developed a device which brings us closer to the perception of the images in other people's minds, by drawing on a database of some 20,000 dreams compiled by psychologists Adam Schneider and G. William Domhoff from the University of California at Santa Cruz. The Santa Cruz 'dream bank' is a repository of voluntary contributions from participants who have submitted descriptions of their dreams, either in writing or as an audio recording.² Chatonsky designed an algorithm which scans the contents of dreams and registers the most frequently recurring concepts (words), the statistically predominant elements; the software creates random combinations of these to generate new dream sequences and then searches the Internet for photographs that match the selected keywords. The images are run through a visual effects filter to give them a slightly blurred

Fig. 149 Grégory Chatonsky and Dominique Sirois, installation view of the work Memor-

ies Center, at Centre d'art et de diffusion CLARK, part of *Le Mois de la Photo à Montréal*, 3 September – 11 October 2015.

^{2 &}lt;u>http://dreambank.net</u> (last accessed 25 February 2020).



Joan Fontcuberta Googlegrams



11-S NY September 11 plane crash snapshots. The photographs have been refashioned using photomosaic freeware, linked to Google's Image Search function. The final result is a composite of 8,000 images available on the Internet that responded to the words: "God", "Yahve" and "Allah".

HOMELESS Homeless man sleeping on the

been refashioned using photomosaic freeware, linked to Google's Image Search function. The final result is a composite of 10,000 images available on the Internet that responded to the names of

sidewalk. The photograph has

world according Forbes magazine (2004) as search criteria: "William Gates III", "Warren Buffett", "Lakshmi Mittal", "Carlos Slim Helu", "Prince

Alwaleed Bin", "Talal Alsaud",

the 25 richest persons in the

"Ingvar Kamprad", "Paul Allen", "Karl Albrecht", "Lawrence Ellison", "S Robson Walton", "Jim Walton", "Alice Walton", "Helen Walton", "Kenneth

Thomson & family", "Liliane Bettencourt", "Bernard Arnault", "Michael Dell", "Sheldon Adelson", "Theo Albrecht", "Roman

Abramovich", "Li Ka-shing",
"Amancio Ortega",
"Stoven Ballmar" and "Silvio

"Steven Ballmer" and "Silvio Berlusconi".



appearance, and converted to monochrome, which the artists believe is how we store the graphic content of our dreams. In Memories Center Chatonsky and Sirois present a video installation in which the system reads the narratives of the dreamed situations or events and screens the dreams as visual sequences with a structure like that of a storyboard or a photo comic. What interests us here - apart from the dystopian aspect of the project: technology that can read minds and record thoughts has a number of implications that a democratic society should be in no hurry to assume - are the criteria by which words and dreams are linked. If the search is conducted on Google Image Search, for example, the same word will lead us to different 'dreams' depending on geographical region, location, time span and language. Even the identity of the person carrying out the search can affect the result, given that Big Data enables search engines to cater to specific user profiles. For Chatonsky and Sirois's purposes, this is relatively unimportant, but in other circumstances it can be highly significant, as my Googlegrams project set out to show.

Technically, the Googlegrams project was the product of connecting two quite different fields: the Google search engine and the mosaic decorative tradition. Historically, mosaic images have been composed of small coloured pieces of a hard material such as stone, glass or clay. When the composition is viewed from a distance, the individual colour points merge on the retina to form a continuous figure, in much the same way as the dots in a photomechanical printed image. Etymologically, the word 'mosaic' derives from Latin *musivus*, which in turn comes from the Greek *mouseion*, 'pertaining to the Muses'. Roman mosaics were made up of the small ceramic squares known as tessellae, and a mosaic was thus an opus tessellatum.

The oldest known mosaics, dating from more than 3,000 years BCE, were discovered by archaeologists excavating the ancient Sumerian city of Uruk, on the site of present-day Al Warkā', in Iraq. Many ancient peoples in Mesopotamia and Asia Minor, and also in Europe and Meso-America, developed very sophisticated mosaic techniques, but it was the Greeks and Romans who raised the art to the highest figurative splendour, attaining unprecedented precision of colour and form by using smaller tiles. No less important are the contributions made by Islamic artists, especially in the Byzantine period, which bequeathed outstanding achievements in this medium, but the rise of the fresco and other types of wall painting as a form of architectural ornamentation in the Renaissance marked the beginning of the decline for the decorative mosaic. Apart from its undoubted importance in art history, for most of us, mosaic is of interest today as the

forerunner of the iconic structure of digital images: we see those little tessellae tiles as the first pixels.

Digital technology gave a real boost to the photomosaic process, the production of mosaics whose building blocks are not plain coloured tiles but tiny photographs. In 1996, Robert Silvers, a student at the MIT Media Lab, created the first automatic photomosaic software. A model image is divided into an optional number of cells and the programme replaces each cell with an image from a directory containing a bank of previously selected graphic files. The criterion for cell substitution is the closeness of the match between the average values of density and colour tone of the original cell (measured by its histogram) and those of the available photographs. The smaller the cells and the closer the correspondence in density and chromatic values between original and replacement, the higher the quality of the end result. Silvers went on to start his own company, Runaway Technologies, to put his invention to work, primarily in the service of the illustration and graphic communication sectors. He has also published several books of examples of his work, such as portraits of famous people and images with a powerful graphic impact, and with the emphasis firmly on the sensational and the spectacular. Similar programmes have since appeared, and the photomosaic as a tool has transcended its initial application as a publishing and advertising resource to enter the realms of artistic experimentation.

In 2002, another programmer, Frank Midgley, developed MacOSaiX, a freeware photomosaic tool for the Mac platform which introduced a very useful new capability: the programme works directly on the Internet, through the Google search engine, with the user determining the criteria for selecting images by means of keywords. Once we key in our chosen words, the process is irreversible, governed by the characteristics of the flow of information circulating through the network and Google's internal logic.

Google was created by Larry Page and Sergey Brin, two post-grad computer science students at Stanford, in a rented garage in 1998. Six years later they had become not only billionaires but also, like Bill Gates before them, gurus of the cyberculture, a culture which identifies the world with the web. Google's name is a play on the word 'googol', coined to designate the number 1 followed by 100 zeros by nine-year-old Milton Sirotta, nephew of the American mathematician Edward Kasner, who popularised it in his book *Mathematics and the Imagination*. Google's adoption of the term reflects the fledgling firm's ambition to organise all of the inconceivably vast amount of available information. On its own website, Google – as purveyor of the supreme Internet

search experience - describes its mission as being "to organize the world's information and make it universally accessible and useful" to users all over the planet. The company has developed the largest search engine on Earth and offers the quickest and easiest way to find stuff on the Net. Accessing something like 200 million websites every day – the mind-boggling numbers are getting bigger all the time - Google currently handles more than three and a half billion queries (most of them in less than half a second) and trawls 20 billion websites per day.4 In qualitative terms, 2001 saw Google make two crucial additions to its range of products and services: the word-driven Image Search (including an Advanced option) and Google Zeitgeist. As Google's global audience grew, its statistical search patterns were charting minute by minute what was on the communal mind. Highlighting the flow of top-ranking searches Google institutionalised a cluster of keywords as Google Zeitgeist⁵: a window onto our collective consciousness in real time that traces our changing obsessions and the ups and downs of popularity. Against this backdrop, the Googlegrams project invites us to reflect: on the myth of the Internet as a universal archive, on the relations between image and text, and on aspects of the semiotics of representation (such as trompe-l'oeil and the palimpsest) with which I have engaged in previous works. For a start, the Internet is in effect the culmination of a culture for which it is a given that recording, classifying, interpreting, archiving and narrating with images are common features of a wide range of human actions, from the most private and intimate to the most public. The Internet ratifies our archive culture and at the same time resolves the old political debate that pits access to information against the ownership of documents: cyberspace enfolds us in a universe of pure information from which the physicality of things has disappeared and in which the essentially shared condition of information makes all talk of ownership or property meaningless. We may now be on the threshold of the prophetic noosphere⁶ heralded by the heterodox Jesuit Pierre Teilhard de Chardin at the beginning of the 20th century, when computers had scarcely been dreamt of. Given that the omnidirectional Internet already acts as a communicating link between all connected individuals, it looks set to enrich our stock of information to such an extent that we can for the first time constitute a noosphere as the collective mental space in which all cultural ex-

^{3 &}lt;a href="https://about.google/intl/en_us/">https://about.google/intl/en_us/ (last accessed 25 February 2020).

⁴ Note from the editors: These numbers are extremely difficult to ascertain, both for technical reasons and for company policy. Research publications are easily outdated in the face of rapid development. Quoted by

many is this website: https://www.internetlivestats.com/google-search-statistics/ (last accessed 26 February 2020).

⁵ Google has discontinued Zeitgeist, but most of its features can be found in Google Trends, created in 2006.

change takes place. The Internet is well on its way to becoming a worldwide memory, one that will contain all our connected brains, and the *Googlegrams* project specifically engages with the utopia of connectivity and the free exchange of information.

The archive has been a constant presence in all of my projects. On a number of occasions I have taken the bogus 'discovery' of an archive as the starting point from which to critique, parody and deconstruct the very concept of the document. In Googlegrams the basic strategy consists in selecting images that have become icons of our time. For example, one of the most widely disseminated photos attesting to the torture and abuse at Abu Ghraib prison in Baghdad: Private Lynndie R. England holding a leash tied around the neck of a prisoner as if he were a dog. In one 'Googlegram' this photograph has been refashioned to provide the searcher with the list of names of politicians, military personnel and civilians cited in the Final Report of the Independent Panel to Review DoD Detention Operation⁷ by the Schlesinger Panel, set up by the United States Congress to investigate the abuses.

Viewed from a certain distance the photomosaic presents us with a perfectly recognisable picture of Lynndie England, but as we pull in closer we find snapshots, drawings, cartoons, graphics and so on; in other words, files with a graphic format that Google assigns to the category 'image' and, most importantly, are on web pages on which one or more of the listed names appear. Here again we have a palimpsest effect of superimposed texts whose hierarchy is a function of the observer's distance: a hyperopic vision privileges the composite whole, a myopic vision privileges the tiny constituent elements that make up the coarse graphic texture. The overlapping of the two and the lack of detail indicate a first level of noise. At the same time, though, the evocative substance and the semantic richness of each work derive from that noise, or rather from the relationship established between the content of the primary image and the search terms. The connection can be causal, spatial, temporal, metaphorical, linguistic ... or simply arbitrary, suggesting the dense relational constellation which obtains inside every archive and at the same time determines the ideological orientation of the particular work, while the poetic register of the work, for its part, lies in the response in terms of text that can be generated for each of the images.

⁶ Pierre Teilhard de Chardin used the word 'noosphere' for the first time in 1922 in his essay *Hominization*. The original text was reprinted in Pierre Teilhard de Chardin, *The Vision of the Past*, London 1966, pp. 71, 230, 261

⁷ James R. Schlesinger and Independent Panel to Review DoD Detention Operations, Final Report of the Independent Panel to Review DoD Detention Operations, http://purl.access.gpo.gov/GPO/LPS53245 (last accessed 3 February 2020).

The Internet functions like – as – an immense visual memory bank that supplies the graphic information available at any given moment. However, Google introduces into the search another kind of unavoidable noise, which manifests itself as a series of logical 'accidents'. The source of this noise is the inherent ambiguity of the words used - words which also express the categories or signatures of the archive. This ambiguity can deflect the search mechanisms, giving rise to errors which open up the question of how documents are catalogued and the routes that are used to access them. In effect, we are seeing here some of the connects and disconnects between word and image, chance associations occasioned by the ineluctably polysemous character of any search term (not only in the searcher's own language but also in at least some of the hundreds of other languages present on the Internet). For example, when we run a search using a personal name we are shown pictures of everyone who has that name, as well as images of a whole host of things that happen to be associated with it and them; the photomosaic programme will use those images it finds most suitable, irrespective of whether they happen to be of the target person, and the random 'intruders' will appear with greater or lesser frequency according to their degree of Internet notoriety (determined by Google's algorithms).

But if we are to avoid sinning from an excess of innocence we must also acknowledge the presence of other kinds of noise, which are a consequence of ideological 'accidents'. The Internet may appear to be a vast, open, democratic structure, but the channels of access to information are still heavily mediated by political and corporate interests. On their own initiative, under inducement or compulsion, search engines regularly and secretly block access to and censor data and practice without informing us. For example, when the Abu Ghraib scandal first broke, Google initially did not supply images of some of those implicated, notably Lynndie England and her boyfriend Charles Graner, though pictures of both could be found on other search engines, such as Altavista, Lycos and Yahoo. The following declaration was taken from the Google website:

"Google views the quality of its search results as an extremely important priority. Therefore, Google stops indexing the pages on your site only at the request of the webmaster who is responsible for those pages or as required by law. This policy is necessary to ensure that pages are not inappropriately removed from our index. Since Google is committed to providing thorough and unbiased search results for our users, we cannot participate in the practice of censoring information on the World Wide Web."

Sadly, it is now time to rouse ourselves from our 'noospheric' dream and pay close attention to the latest Big Brother privileged to judge what is politically undesirable or potentially detrimental to 'national security' or to the interests of those who pay to ensure for themselves a positive public profile. Let's not forget that Google is not a public service but a private corporation engaged at all times, as the capitalist system requires, in maximising its profits. The risk that we as a society face is that Google should come to be invested with a demiurgic power of the kind enjoyed by photography in the 19th century and much of the 20th, when it defined a regime of truth: whatever appeared in the photograph must indisputably have taken place in front of the camera. But in our present situation, with photographic realism utterly discredited, Google has inherited that status: to ascertain some fact we search Google and judge according to the results. We have simply shifted our faith from the camera to the search algorithm - despite the disturbing effects noise can produce, which are evident even though the system tries to minimise them. From a critical perspective, exploiting this archive noise is basically a way of entering into a new dialogue with the archive. More than just an intellectual game through which to dedramatise the archive, the gestures inherent in Googlegrams, though strictly symbolic, have a pedagogical function. On the one hand they expose the intricate semantic camouflaging to which the archive subjects information – for all that it is presented as a means of apprehending reality and systematising knowledge, it always turns out to be inexhaustible and interminable - and on the other they light up the space between memory and the absence of memory, between useful data and the indiscriminate magma of raw information. When all is said and done, they establish the primacy of intelligence and creativity over the accumulated mass of information, and that is an absolute requirement for preventing memory and images from becoming sterile.

⁸ https://web.archive.org/web/ 20050531225254/http://www.google.com/ remove.html (last accessed 25 February 2020).