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PERSPECTIVES ON VISUAL LEARNING, VOL. 4

# How Images Behave

Petra Aczél / András Benedek / Kristóf Nyíri  
(eds.)

Budapest 2020

Hungarian Academy of Sciences  
Budapest University of Technology and Economics



# How Images Behave

# Perspectives on Visual Learning

Edited by Petra Aczél, András Benedek and Kristóf Nyíri

Volume 4

Hungarian Academy of Sciences  
Budapest University of Technology and Economics

Petra Aczél / András Benedek / Kristóf Nyíri  
(eds.)

# **How Images Behave**

Hungarian Academy of Sciences  
Budapest University of Technology and Economics

Petra Aczél / András Benedek / Kristóf Nyíri (eds.)  
How Images Behave

Budapest:  
Hungarian Academy of Sciences /  
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# Contents

<i>Kristóf Nyíri</i> Preface .....	1
---------------------------------------	---

## MENTAL IMAGES, PICTORIAL THINKING

<i>Szilvia Finta</i> The Power of Vision The Role of Pictures in Shaping Human Life and Destiny .....	5
---	---

<i>Ewa Schreiber</i> From Sound Memories to Sound Images: The Case of György Ligeti .....	9
---	---

<i>Kristóf Nyíri</i> Suppression, Depression, Pictorial Pressure: The Road from Freud to Arnheim .....	13
--	----

<i>Daniel L. Golden</i> How We May Think in Pictures .....	25
---	----

## VISUAL RHETORIC, VISUAL POLITICS

<i>Petra Aczél</i> Visual Rhetoric of the COVID-19 Pandemic – Some Tentative Assumptions .....	31
--	----

<i>Erik P. Bucy</i> Manipulated Video, Media Savvy and the 2020 U.S. Presidential Election .....	41
--	----

<i>Lilla Petronella Szabó</i> Politicians in the Picture: Self-personalization in the 2020 Democratic Primaries .....	45
<i>James E. Katz – Kate Mays – Yiming “Skylar” Lei</i> Facial Recognition Technology: Analyzing the U.S. Public’s Outlook .....	49
<i>Andrija Šoć</i> Politics of Images in Deliberative Democracy .....	53
<i>Trischa Goodnow</i> The Museum of Incomplete: The Paradox of Visual Synecdoche .....	57
VISUALIZATION / VISUAL METAPHOR THEORY	
<i>Livia Barts</i> Interpretative Text-visualization Practice to Aid Reading Comprehension .....	63
<i>János Tanács</i> The Intertwined Role of Visualization and Historical Accuracy in the Challenger Launch Decision Making .....	67
<i>Hédi Virág Csordás</i> Moving Images in the Mercedes vs Jaguar Commercial Battle .....	69
<i>Naoki Kambe</i> Toward a Theory of Visual Argument: Contexts and Multiple Temporalities .....	73
<i>Xu Wen</i> Visual Metaphors in News Cartoons on COVID-19 in China .....	77

*Ágnes Virág*  
Uncle State's Hat: Metonymic Hybrids  
in Hungarian Editorial Cartoons ..... 81

*Charles Forceville*  
The Relevance Principle as the Basis for All Communication:  
*Notes on Visual and Multimodal Communication:*  
*Applying the Relevance Principle* (Oxford UP, 2020) ..... 85

#### IMAGE THEORY

*Philipp Stoellger*  
The Power of Images – Beyond the Logic of Action  
Arguments for the Intrinsic Power of Images ..... 91

*Ian Verstegen*  
Image Act Skepticism:  
Philosophical Challenges to Art Historians ..... 101

*Branko Mitrović*  
Theories of Visuality and the Social History of Postmodernism:  
Ruminations about a Research Project ..... 109

*Jim Hamlyn*  
Understanding Images Without Theory ..... 113

*Michalle Gal*  
Design Objects as Images ..... 117

*Irma Puškarević*  
The Image of Type:  
The Wonders of Multi-script Typography ..... 123

*Zsuzsanna Kondor*  
Image, Perception, Behaviour ..... 127

*Rudolf Lütke*  
Using Images: Do They Describe or Avoid Reality? ..... 133

#### VISUAL IDENTITY

*Andrea Kárpáti*  
Misbehaving Images  
– Expressing Identity through Cultural Symbol Systems ..... 139

*Eszter Deli – Klaudia Jakab – Fruzsina Mikó*  
The Bold Vision: An Analysis of the Visual Language  
and Imagery of Hungarian Romas ..... 143

*Admilson Veloso da Silva – Alexandra Béni*  
Visual Representation of #Africa on Instagram:  
A Tentative Netnography  
through the Analysis of Hashtag-linked Content ..... 147

*Vicky Karaiskou*  
“Same, same but different”:  
BABELproject and the Multifold Meanings of a Single Image ... 149

*Ádám Kuttner*  
Virtual Images in Exhibition Communication ..... 153

*Karolina Golinowska*  
Historical Imagination Land: Postindustrial Heritage Site  
as a Journey through the Time that Has Never Existed ..... 157

#### FEMALE SELF-REPRESENTATION

*Zita Komár*  
“I’m bi\*\*h, I’m a lover, I’m child, I’m a mother, I’m a sinner,  
I’m a saint...” – Visual Representation of Ancient Goddesses  
and Modern Muses in Advertising  
in the Context of (Anti)Feminism ..... 163

*Orsolya Putz*  
Prototypes of Women in American Advertisements:  
A Machine Aided Image Analysis ..... 167

*Rachel A. Katz*  
Grindr Tourism in Tel Aviv: Hegemonic Masculinity Aesthetics  
among Tourist-Local Relations ..... 179

*Anikó Kristóf*  
Visual Self-Representation of Women  
in Masculine Dominated Environments ..... 183

*Judit Sebestény*  
The Importance of the “Taken-for-Granted”:  
The Visual Representation of Families in Domestic Sitcoms ..... 187

#### FILM, MEDIA, VIRTUALITY

*Anna Chiara Sabatino*  
Touch, Action!  
Handmade Movies, Amateur Performance ..... 193

*Pedro Branco – Guilherme Moura Fagundes*  
Anthropological Cinema  
and the New Iconography of Climate Change ..... 197

*Lorenzo Manera*  
Medial Environments, Virtual Images  
and Aesthetic Experience in the Digital Age ..... 201

*Márton Gergely Rétvári*  
Ready Rhetor One –  
Using Virtual Reality in Rhetoric Education ..... 205

*Dennis Summers*  
The Erotics of Cutting ... and Pasting ..... 209

## NEW LEARNING METHODS

*András Benedek*

Visual Learning as an Opportunity and Compulsion  
for Innovation in the Period of Pandemic ..... 215

*Krisztina Szabó*

The Influencing Factor of the Visual on Reading Performance  
in the OECD/PISA Reading Literacy Assessments ..... 221

*Dóra Horváth – Tamás Csordás – Attila Cosovan – Zita Komár*

Linguistic Crossovers for Better Understanding  
of the Quadruple Helix Model of Innovation ..... 225

*Éva Berde*

Gutenberg and the MOOC: The Uber of Higher Education ..... 229

*Karl Heuer – Deniz Sarikaya*

Picturing the Undrawable: Visualization of Infinities  
in Mathematics Education and Set Theoretic Practice ..... 233

*Karl Heuer – Deniz Sarikaya*

Tilings as an Open Problem Field  
for Mathematically Gifted Children ..... 237

*Amirouche Moktefi*

Phenomenology of Diagrams ..... 241

*Jens Lemanski – Amirouche Moktefi*

The Productive Ambiguity of Venn's Three Circles ..... 245

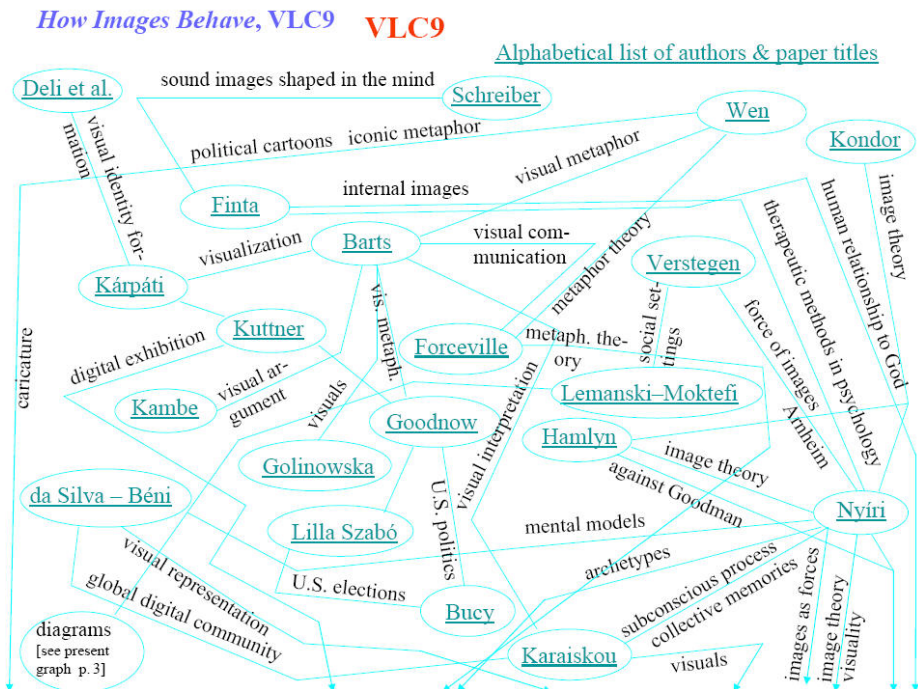
*Katharina Gallner-Holzmann – Theo Hug – Sarah Oberbichler*

Generous Interfaces Revisited: Examples of Designing  
Visual Structures for Digital Archives ..... 249

Kristóf Nyíri

## Preface

The present online volume contains the preliminary papers prepared for the 9TH BUDAPEST VISUAL LEARNING CONFERENCE – HOW IMAGES BEHAVE, held online on Nov. 26, 2020, organized by the Department of Technical Education, Budapest University of Technology and Economics, by Corvinus University of Budapest, and by the Committee for Communication and Media Theory of the Hungarian Academy of Sciences. Click on [http://www.hunfi.hu/nyiri/VLC9/graph\\_1.pdf](http://www.hunfi.hu/nyiri/VLC9/graph_1.pdf) for an overview (see below the 1st page of the graph) of how



the papers hang together (another overview is of course presented by the Table of Contents on the foregoing pages here in the volume). Please use the Two-Up Continuous Page Display option. The VLC9 was originally planned as a classical face-to-face event, the pandemic forced upon us the online alternative, and the necessity to apply what we designate as the Linked Video Microcontents Pre-Conference Material (LIVMI) model – we asked the participants to submit very short texts & videos. Some of our wonderful participants complied – thank you so much! – some of them did not (the plenary speakers were, clearly, allotted more space), but we did not have the heart to refuse acceptance of valuable submissions even if they overstepped the limit. The result, we believe, is a brilliant motley – an imprint, if you like, of the new normal the pandemic has brought upon us. Incidentally – or not incidentally – with the very short attention span audiences increasingly seem to display, we should perhaps not experience strict length limits as a burden; perhaps we should experience them as a liberation.

For the past ten years, the Budapest Visual Learning Conference Series has striven to make happen what should have happened long ago: a radical iconic turn. Our efforts, working against the tide, were not really successful. Now if the 9TH BUDAPEST VISUAL LEARNING CONFERENCE was a break-through event, as we believe it was, it is hoped to have an immediate continuation: the participants, with access to each other, should continue to communicate with each other and with the organizers of the series, recounting how their research progresses; we hope the participants to become a virtual research group, a very real virtual research community, a community that will change the tide.

**MENTAL IMAGES,  
PICTORIAL THINKING**



[SEE THE VIDEO](#)

*Szilvia Finta*

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Eötvös Loránd University, Faculty of Humanities, Institute of Philosophy

## **The Power of Vision The Role of Pictures in Shaping Human Life and Destiny**

*“Where there is no vision, the people cast off restraint / perish / loose / go out of control / run wild; but he that keepeth the law, happy is he.”*<sup>1</sup> – says Proverbs 29:18. There is a visible parallelism in this sentence, in which the word “vision” is the parallel to “law” (*Torah*<sup>2</sup> = *instruction, guidance, teaching, law*). Presumably, a cause of it is that in the Hebrew Scripture the Almighty frequently speaks to his people through pictures, images, visions etc. and by these he gives them instructions and changes their heart, mind and life.

In this short presentation, I would like to speak about the role and effects of pictures in general. I would like to examine how images and visions change man and history.

Images could be divided into two main groups: external or internal pictures.

- 1) External pictures are visible to the eyes physically, e.g. paintings, photos, films, and partially role models.

---

<sup>1</sup> *Holy Scripture* (King James Authorized Version).

<sup>2</sup> *Gesenius' Hebrew and Chaldee Lexicon to the Old Testament Scriptures*, Grand Rapids, MI: Baker Book House, 1993.

2) Internal pictures are only visible to our “heart”, “spirit”, “soul”, “mind”, e.g. imaginations, mental preparations, visions, dreams, inspirations, impulses, ideas and partially role models.

All of these pictures have creative power which can shape the life of people, societies and history. However, there are differences in mechanism, power and effect between internal and external images. Let's see two examples!

In the case of raising children there are differences between reading and listening to fairy tales and cartoons and watching TV. What children hear and read or see affects them differently. Kádár says that when children hear and read a fairy tale they create an internal picture, the story comes to life and they create a fantasy image according to their own desires. It helps to process tensions, negative emotions and fears.<sup>3</sup> Internal imaging has a healing effect, it comforts, reassures. It is used in therapeutic methods of psychology (imagination techniques) but also in creative art when, creating, the artist liberates himself from his tensions and anxieties.

External images block internal imaging.<sup>4</sup> Vekerdy contends that in front of the TV children will become more and more tense and aggressive.<sup>5</sup> According to Bagdy, there is no image without effect, the visual message always reaches some level of the psyche (physical experience, imaginary mobilization or rational influence).<sup>6</sup> A strong visual culture serves the desire of being determined from the outside, suppresses the uniqueness of the personality, uniformizes and unnoticeably makes us controlled externally.<sup>7</sup> Consequently, internal im-

---

<sup>3</sup> Annamária Kádár, “A saját világ varázslója: ezért nem helyettesíti semmi az esti meseolvasást”, [https://hvg.hu/pszichologiamagazin/20171205\\_Ezert\\_nem\\_helyet\\_tesitheti\\_semmi\\_az\\_esti\\_meseolvasast](https://hvg.hu/pszichologiamagazin/20171205_Ezert_nem_helyet_tesitheti_semmi_az_esti_meseolvasast) (2017).

<sup>4</sup> Kádár, *op. cit.*, see also the interview by Judit Czvitkovits conducted with Dr. Tamás Vekerdy: “A mesék oldják, vigasztalják, megnyugtatják a gyereket”, [https://nlc.hu/mesedoboz\\_gyujtooldal2/cikk/vekerdy-tamas-mese/](https://nlc.hu/mesedoboz_gyujtooldal2/cikk/vekerdy-tamas-mese/) (2015).

<sup>5</sup> Cf. Czvitkovits, *op. cit.*

<sup>6</sup> Emőke Bagdy, *Pszichológiai rejtelmek a művészetekben és életünkben*, Budapest: Athenaeum, 2016, 225. o.

<sup>7</sup> *Ibid.*, p. 233.

aging is essential in keeping mental health, living our unique selves and finding our unique life purpose. Now I will present the second example on the subject.

There was a research led by the Barna Research Group on the growth of Christian churches in America. The leading sociologist George Barna discovered that there was a great difference between the effective and growing congregations and the stagnant and declining congregations. The reason for the difference lays in the existence of a vision which was given by God. However, what is vision? According to Barna:

Vision is a picture held in your mind's eye of the way things could or should be in the days ahead. Vision connotes a visual reality, a portrait of conditions that do not exist currently. This picture is internalized and personal. It is not somebody else's view of the future but one that uniquely belongs to you.<sup>8</sup>

Copying the lives and visions of successful leaders is not expedient as it will not be effective, since every person has different talents, abilities, and circumstances, etc. This same principle works in the life of excellent historical figures, artists, and athletes etc., who managed to capture their original personal vision which made them unique and successful.

In this short presentation I wanted to draw attention to the importance of internal images and the danger of the exclusivity of external images. We need to learn to “see with our heart”, to develop our mental imagination in order to deal with emotional tensions effectively, to process the events of the outside world, to relieve stress and to solve our problems. We also need dreams and visions to become who we really are and to change our life and the history.

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<sup>8</sup> George Barna, *The Power of Vision: Discover and Apply God's Plan for Your Life and Ministry*, Grand Rapids, MI: Baker Books, p. 28. On this topic see also: Burt Nanus, *Visionary Leadership: Creating a Compelling Sense of Direction for Your Organization*, San Francisco: Jossey-Bass, 1992, and: Andy Stanley, *Visioneering: Your Guide for Discovering and Maintaining Personal Vision*, Multnomah, 2005.



[SEE THE VIDEO](#)

*Ewa Schreiber*

Institute of Musicology, Adam Mickiewicz University in Poznań

## **From Sound Memories to Sound Images: The Case of György Ligeti**

### **Sound Memories**

The writings of György Ligeti reveal his sensitivity to environmental sounds, including music. The soundscape described by the composer gains numerous functions in his statements. The reminiscences tell us about the repertory which shaped him as a composer and about the compositions which could be heard in his closest environment. They reveal in this way not only Ligeti's fascination with recordings, but above all the composer's sensitivity to the surrounding soundscape and awareness of how strongly it influenced his imagination. For Ligeti this is a pretext for describing the community and the culture in which he grew up, the social and historical changes, and the development of the media which took place during his childhood and youth. A powerful example of such a description is the moment when the composer's father, listening to the news on the radio about the growing political tensions prior to the outbreak of the Second World War, freezes on his chair and the clatter of his typewriter grows silent. This means that he has given up on his writing plans. The calming, mechanical sound of the typewriter is replaced by the invasive sound of the radio bringing bad news, and conflict in the external world intrudes into the familiar household reality. The impending threat,

both political and existential, has been transformed here into the memory of a sound.

## **Sound Images**

Parallel to the sounds of the environment, Ligeti describes sound images shaped in his mind. This inner world consists of entire music pieces performed in real time, but also of metaphorical images. Recalling images from childhood also affects his special way of describing music. Usually it is grounded in the inaccessible, difficult to capture sphere of memory or imagination, yet at the same time it is always music being heard, taking place in time. We are dealing here with musical reminiscences on the one hand, which at times acquire fantastical, exaggerated shapes and, on the other, with music imagined by a little boy. Writing about the sounds coming from a nearby inn where Gypsies used to play, Ligeti says: “and this sound pressed, in tatters and terrifyingly, into my child’s room, as if somewhere, a long way away, enormous beetles with heavy wings were regularly beating against the wall.” (Ligeti, *Gesammelte Schriften*, vol. 2, 2007, p. 12.) He tells us about his childhood fantasies: “as a small child, I had always imagined music: when I got up in the morning, washed, brushed my teeth, or when I went to bed at night. To each of these daily duties belonged a different kind of musical ceremony, and these imaginary music pieces didn’t change” (Ligeti, *Between Science, Music and Politics*, 2001, p. 1).

## **Creative Transformations**

The imaginative way of describing sounds, as well as the awareness of their social meanings, may constitute a polemical commentary on Ligeti’s often expressed belief in the autonomy of music. There are also many indications that Ligeti noticed the subtle connections between music and the sounds of the environment, and appreciated their creative transformation. In relation to Webern’s music, he admires the “ability to listen out for the subtlest sounds” and “shaping the

sound relationships which had previously remained hidden” (Ligeti, GS, vol. 1, 2007, p. 345). Moreover, the composer’s sketches contain references to specific recordings or types of sound, described in a synthetic way.

We might speculate on how the already-mentioned sensitivity to sound resonated with the musical representation of time, together with its irreversible processes of decomposition, in Ligeti’s works. An image of chaos, entropy and organic putrefaction emerges from the description of a childhood dream of a tangled web and is associated with such works as *Apparitions*, *Atmosphères*, *Ramifications* or *Melodien*. Another important image from childhood recalled by Ligeti is that of clocks which are ticking regularly and is associated with *Poème Symphonique* for a hundred metronomes, *Clocks and Clouds* or *Continuum*.

Both metaphors convey the passing of time, showing its irreversibility and decomposition. Because of this they influence the perception of musical time but also, indirectly, biological time. With time, both images were to become the source of the most important metaphors and contrasts defining Ligeti’s music.



[SEE THE VIDEO](#)

*Kristóf Nyíri*

## **Suppression, Depression, Pictorial Pressure: The Road from Freud to Arnheim**

This talk is not about the depression I suppress when looking at the increasingly forgetful state of image research, oblivious, for reasons I cannot fathom, of insights long made. Say there is an encyclopedia entry, “Image”, by a professor called Jens Schröder,<sup>1</sup> deeply immersed in the topic, an entry in which *mental images*, surely prior to any man-made picture, are not even mentioned. By contrast, my present talk focusses on just these images in the soul, the devastating, rescuing, and elevating power they have.

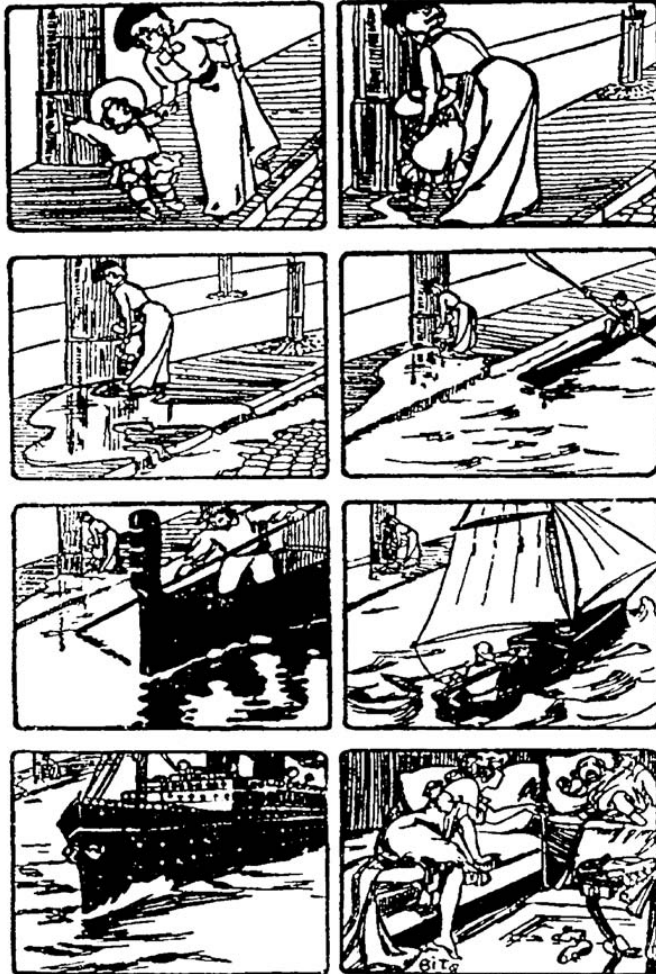
### **Freud**

The suppressing force of some mental images, specifically of dream-images, was classically investigated by Sigmund Freud. Dreams, Freud proposed, cover up what they are actually about, they disguise the unpleasant and disquieting “dream-thought”; the disguise is framed in a “pictographic script”, the “colourless and abstract expression in the dream-thought being exchanged for a pictorial and concrete one.

---

<sup>1</sup> In Ludger Kühnhardt and Tilman Mayer (eds.), *The Bonn Handbook of Global-ity*, vol. 2, Springer International Publishing, 2018, pp. 867–876.

... A thing that is pictorial is, from the point of view of a dream, a thing that is *capable of being represented*”, the dream-thought is, characteristically, transformed into a “pictorial language” in which im-



*“A French Nurse’s Dream”, printed in the Basic Books ed. of The Interpretation of Dreams. The cartoon was found by psychoanalyst Sándor Ferenczi in a Hungarian comic paper called Fidibusz. Ferenczi saw how well it could be used to illustrate the theory of dreams.*

ages are employed to “repress” painful and disturbing feelings, with “the measure of suppression” indicating “the degree of our psychical

normality”, that is the degree to which “neurotic symptoms”, e.g. depression, are present.<sup>2</sup> Freud’s psychoanalytic method of healing consisted in getting rid, by way of therapeutic conversations, of the concealing images, dissolving them with the aim of uncovering the trauma that lay behind them.

## From Galton to Titchener

The next great chapter in the history of psychoanalysis is of course the work of C. G. Jung, but before touching on that work we must refer to an author both Freud and Jung were aware of: Francis Galton. A widely known invention by Galton is that of “composite portraiture”, that is, composite photographs.<sup>3</sup> Freud mentions these in *The Interpretation of Dreams*.<sup>4</sup> Galton was also famous for psychometric



Francis Galton, *Inquiries into Human Faculty and Its Development* (1883), 2nd ed., London: J. M. Dent & Co., 1907, p. 27.

<sup>2</sup> I am here using the James Strachey translation (1955) of *The Interpretation of Dreams*, New York: Basic Books, 2010, pp. 296, 354, 250, 579 and 267, the word for “depression” in the German original is “Verstimmung”.

<sup>3</sup> See Francis Galton, *Inquiries into Human Faculty and Its Development* (1883), 2nd ed., London: J. M. Dent & Co., 1907, pp. 6 ff.

<sup>4</sup> *Op. cit.*, pp. 164, 311 and 499.

experiments, measuring word-association reaction times – it is these experiments Jung refers to in an early paper of his. Now what we have to note here is that Galton in his 1879 essay “Psychometric Experiments”,<sup>5</sup> while assembling a mass of word-association statistics, continuously connects his observations with the phenomenon of inner mental images. And in the volume *Inquiries into Human Faculty and Its Development* there is a chapter, “Mental Imagery”, in which Galton outlined, based on empirical investigations, a well-rounded and extremely influential theory of mental images, a theory with immediate impact on Alfred Binet, William James and Théodule Ribot, and exploited somewhat later by Edward Titchener, Kurt Koffka, Bertrand Russell, and innumerable others.<sup>6</sup> Galton was struck by the fact that there are people who appear to have no visual memory, and indeed seem to be unable to experience visual mental images. How can such people, Galton asked, get along at all with the task of thinking? His solution: “the missing faculty seems to be replaced so serviceably by other modes of conception, chiefly, I believe, connected with the incipient motor sense, not of the eyeballs only but of the muscles generally, that men who declare themselves entirely deficient in the power of seeing mental pictures can nevertheless give lifelike descriptions of what they have seen and can otherwise express themselves as if they were gifted with a vivid visual imagination”.<sup>7</sup> Galton’s position was taken up and generalized by Titchener. As the latter put it:

Meaning is originally, kinaesthesia; the organism faces the situation by some bodily attitude, and the characteristic sensations which the attitude involves give meaning to the process that stands at the conscious focus, are psychologically the meaning of that process. ... We are animals, locomotor organisms; the motor attitude ... is therefore of constant occurrence in our

---

<sup>5</sup> Reprinted in his 1883 volume.

<sup>6</sup> See my volume *Meaning and Motoricity: Essays on Image and Time*, Frankfurt/M.: Peter Lang, 2014, pp. 15 f., compare [https://www.academia.edu/40212898/VISUAL\\_MEANING\\_Essays\\_on\\_Wittgenstein\\_Image\\_and\\_Time](https://www.academia.edu/40212898/VISUAL_MEANING_Essays_on_Wittgenstein_Image_and_Time).

<sup>7</sup> Galton, *op. cit.*, p. 61.

experience... There would be nothing surprising in the discovery that, for minds of a certain constitution, all nonverbal conscious meaning is carried by kinaesthetic sensation or kinaesthetic image. And words themselves, let us remember, were at first motor attitudes, gestures, kinaesthetic contexts...<sup>8</sup>

## C. G. Jung

In *The Interpretation of Dreams* Freud remarked that some symbolisms appearing in dreams are “shared by dreams with psychoneuroses, legends and popular customs”, adding that neuroses are here “following paths along which all humanity passed in the earliest periods of civilization”.<sup>9</sup> This was a once-only remark, one which however might easily lurk in the background of Jung notion of a *collective unconscious*, the contents of which are constituted by *archetypes*, “primordial images”.<sup>10</sup> These images should be encouraged, by the psychiatrist, to enter consciousness, and they should not be, as it were, analyzed away – on the contrary, they should be allowed to clarify the emotions underlying them. Revealing is Jung’s 1929 talk “Aims of Psychotherapy”.<sup>11</sup> As he here tells us, it often happened that patients would recount some dream in which the colours were particularly vivid, or in which there appeared a strange figure. Sometimes the dreams were directly about photographs, or images painted or drawn, or illuminated manuscripts, or even about the cinema. Jung

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<sup>8</sup> Edward Bradford Titchener, *Lectures on the Experimental Psychology of the Thought-Processes*, New York: Macmillan, 1909, pp. 176 f.

<sup>9</sup> Freud, *op. cit.*, pp. 360 f.

<sup>10</sup> The question whether those primordial images actually have a visual dimension I have discussed in some detail in my essay “Forever Jung”, Dunabogdány: 2020, see [http://www.hunfi.hu/nyiri/Forever\\_Jung.pdf](http://www.hunfi.hu/nyiri/Forever_Jung.pdf) or [https://www.academia.edu/44107405/Forever\\_Jung](https://www.academia.edu/44107405/Forever_Jung). A highly interesting book on the topic that only recently came to my attention is Paul Downes, *The Primordial Dance: Diametric and Concentric Spaces in the Unconscious World*, Oxford/Bern: Peter Lang, 2012.

<sup>11</sup> “Ziele der Psychotherapie”, published in C. G. Jung, *Seelenprobleme der Gegenwart*, Zürich – Leipzig: Rascher Verlag, 1931. English translation in C. G. Jung, *Modern Man in Search of a Soul*, London: Kegan Paul, Trench, Trubner & Co., 1933, translated by W. S. Dell and Cary F. Baynes.

urged his patients to translate into paintings their dreams and fantasies. “But why do I encourage patients”, he asks, “to express themselves by means of brush, pencil, or pen at all?” The explanation: it will definitely have an effect if one struggles for hours with “refractory brush and colours”. He goes on:

the physical shaping of the image enforces a continuous study of it in all its parts... This invests the bare fantasy with an element of reality, which lends it greater weight and greater driving power. And these self-made pictures do indeed produce effects... a patient needs only to have seen once or twice how much he is freed from a wretched state of mind by working at a symbolical picture, and he will always turn to this means of release whenever things go badly with him.

And Jung continues: “The patient can make himself creatively independent... .. by painting himself he gives shape to himself.”<sup>12</sup> The method he used for healing his patients Jung also applied to his own illness. He kept some notebooks, from 1913 onwards for a number of years, in which he entered his neurotic fantasies, accompanied by paintings, among them numerous mandalas, he made. They are now published as the *Red Book*<sup>13</sup> (for images see the next page).

## **The Bauhaus and Arnheim**

The Bauhaus movement, the *Staatliches Bauhaus*, was – this should not come as news to you – a German art school, active in its home country from 1919 to 1933, combining crafts and the fine arts.<sup>14</sup> What

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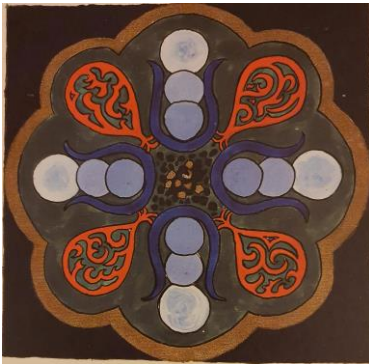
<sup>12</sup> For the broader context of this train of thought in Jung’s theories see my “Forever Jung”, pp. 11 ff.

<sup>13</sup> See my “Forever Jung”, pp. 24–30.

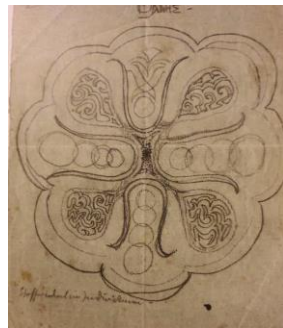
<sup>14</sup> As Kárpáti puts it: “the iconic German arts and crafts college”. See Andrea Kárpáti, “Art Education and Youth Subcultures – From Child Art to the Visual Language of Adolescents: Changing Concepts of Creativity in Art Education”, in A. Benedek – K. Nyíri (eds.), *Learning and Technology in Historical Perspective* (*Perspectives on Visual Learning*, vol. 3), p. 31, in the section of her paper refer-



*“Systema munditotius”,  
the first mandala painted  
by Jung, in 1916.*



*Mandala drawn by Jung on  
Aug. 2, 1917, in one of the  
Black Books (precursors to the  
Red Book).*



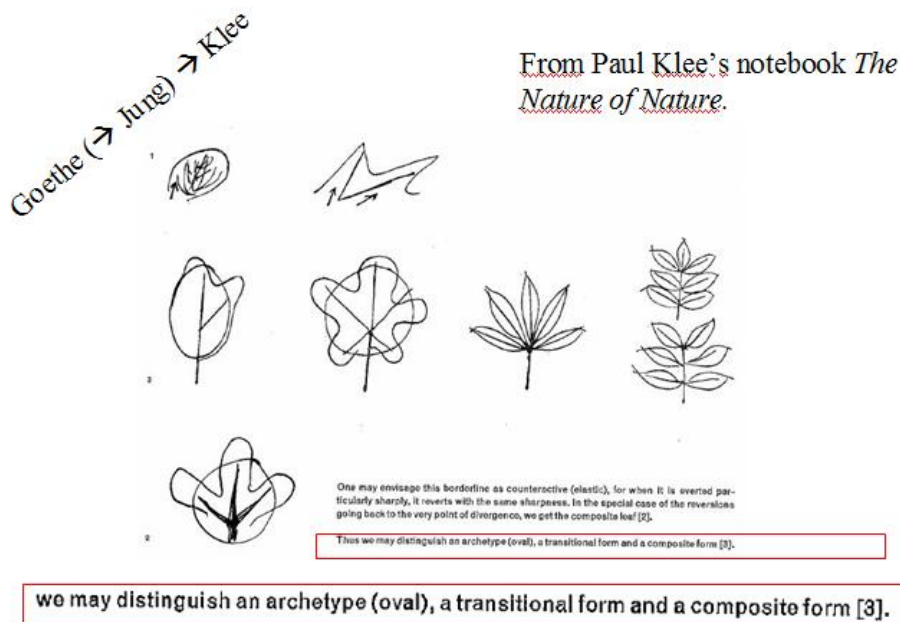
*The painted version  
of the same drawing  
in the Red Book.*

should also not come as news, but perhaps it does, is that Jung definitely had an impact on the Bauhaus. It should not come as news, for Jung was, in the 1920s and 30s already, wildly popular worldwide, and of course especially so in Switzerland, Austria, and Germany. He

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ring to the role of Hungarians such as László Moholy-Nagy and György (Georg) Kepes in the Bauhaus movement.

had a significant impact on the Swiss painter Paul Klee, a major figure in the Bauhaus, who was, also, very much under the influence, as many in the movement were, of Gestalt psychology.<sup>15</sup> Walter Gropius, the founder of the Bauhaus movement, was not uninfluenced by Jung either, similarly to Moholy-Nagy and other Bauhaus members.<sup>16</sup>



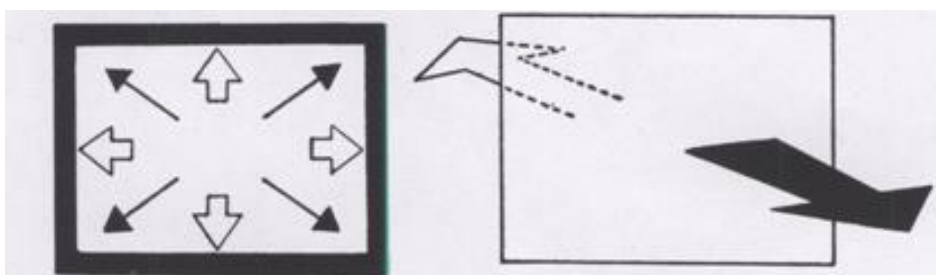
“Archetypes” – Jung influencing Klee

<sup>15</sup> On Klee and the Gestalt psychologists there are some enlightening passages in Marianne L. Teuber's "Blue Night by Paul Klee", see the volume *Vision and Artifact*, dedicated to Rudolf Arnheim, ed. by Mary Henle, "Foreword" by Rudolf Arnheim, New York: Springer, 1976, pp. 144 f. Henle specifically refers to Klee's notebooks *The Thinking Eye* and *The Nature of Nature*, in which Klee uses the term "archetype", taken from Goethe both by Klee and by Jung.

<sup>16</sup> See Lee Congdon's chapter "László Moholy-Nagy: The Bauhaus", in Congdon's brilliant book *Exile and Social Thought: Hungarian Intellectuals in Germany and Austria, 1919–1933*, Princeton, NJ: Princeton University Press, 1991, cf. esp. pp. 181 and 205 f.

An important member of the movement was György Kepes, who later played leading roles in various American institutions that emerged in the wake of Bauhaus scholars emigrating to the States. In 1944 Kepes published his *Language of Vision*,<sup>17</sup> the first sentence of which is an acknowledgement of the author's indebtedness to Gestalt psychologists. The book contains innumerable images, many of them inspired by, or indeed taken over from, the Gestalt psychology literature. What Kepes has been particularly struck by when examining those images was that they as it were radiated physical forces:

A point, a line, or a shape on the picture-surface is seen as possessing spatial qualities. If one places a point or a line in one or another position on the surface, the position of the respective optical units in reference to the picture margin will relate different spatial meanings as a dynamic form of movement. The elements appear to be moving left, right, up, down, and to be receding or advancing, depending upon their respective position in the picture-plane. The optical units create an interpretation of the surface as a spatial world; they have strength and direction, they become spatial forces.<sup>18</sup>



*From Kepes, The Language of Vision.*

Then in 1965 Kepes edited the volume *Education of Vision*<sup>19</sup> in which the first chapter was an essay by art and film theorist and Gestalt psychologist Rudolf Arnheim. This essay, “Visual Thinking”, is a precur-

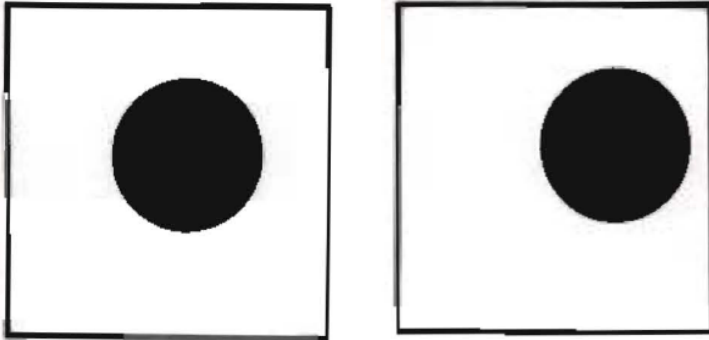
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<sup>17</sup> Chicago: Paul Theobald, 13th large printing edition 1969.

<sup>18</sup> *Ibid.*, p. 19.

<sup>19</sup> New York: George Braziller.

sor to Arnheim's seminal 1969 book *Visual Thinking*.<sup>20</sup> Arnheim's fame at that time was already firmly established by his 1954 volume *Art and Visual Perception*. The volume begins with a display of characteristic Gestalt psychology pictures, displaying tensions as contrasted with balance. Those tensions, as Arnheim stresses, actually project *psychological forces*.



*Balance and tension – forces radiating from an image.  
(Arnheim, Art and Visual Perception.)*

Significantly, later in that volume Arnheim makes an important reference to Jung. “The development of pictorial form”, Arnheim writes,

relies on basic properties of the nervous system, whose functioning is not greatly modified by cultural and individual differences. It is for this reason that the drawings of children look essentially alike throughout the world, and that there are such striking similarities among the early art products of different civilizations. A good example is the universal occurrence of circular, concentrically arranged figures, to which Jung has applied the Sanskrit word “mandala”. ... Jung refers to this pattern as one of the archetypes or collective images that appear everywhere, because the collective unconscious, of which they

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<sup>20</sup> Berkeley: University of California Press.

are a part, “is simply the psychic expression of identity of brain structure irrespective of all racial differences”.<sup>21</sup>

Arnheim is, to date, the towering figure of *Bildwissenschaft*, as the Germans today call the discipline very few of them actually practice. What they actually practice is a theory of words telling about pictures. The Budapest Visual Learning conference series, in the course of ten years, with the ten volumes it has produced, and with my own humble attempts at some sort of a synthesis,<sup>22</sup> has not succeeded in altering this state of affairs. Let us hope the 9th Budapest Visual Learning online event will turn the tide.

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<sup>21</sup> *Ibid.*, p. 167.

<sup>22</sup> See my “[Postscript: The Victory of the Pictorial Turn](#)”, in András Benedek and Kristóf Nyíri (eds.), *Vision Fulfilled: The Victory of the Pictorial Turn*, Budapest: Hungarian Academy of Sciences / Budapest University of Technology and Economics, pp. 251–267, 2019, and my “[Epilogue](#)”, in András Benedek and Kristóf Nyíri (eds.), *Image and Metaphor in the New Century*, Budapest: Hungarian Academy of Sciences / Budapest University of Technology and Economics, 2019, pp. 209–218.



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## **How We May Think in Pictures**

Getting beyond the unquestionable victory of the pictorial turn, issues of visual epistemology become more pressing than ever. While pictorial information and communication are becoming dominant by all measures of amounts and significance, we still know little about the impact this will have on our cognitive capacities. Related questions include: What kind of information are viable through the pictorial medium? How can basic structures of human thought – such as place, time, action, cause and effect – get expressed in it? Are there any new categories emerging from the unique characteristics of new media?

In this presentation I seek answers to these questions within the theoretical framework set up by John Dewey in his seminal book *How We Think* (first issued in 1910, substantially revised in 1933). Dewey differentiates from each other four, more and more restricted understandings of “thought”. The broadest sense of the phrase refers to (1) everything that “is there in our heads” or “goes through our minds”. Thinking of something in that sense is to be conscious of it, which is entirely compatible with the cognitive processes of visual perception. The next step is one made in the direction of abstraction where it is meant to point to (2) only such things that we “do not di-

rectly see, hear, smell, or taste”. The third type will just include (3) “beliefs that rest upon some kind of evidence or testimony”, which may become even more refined expecting that (4) “the ground or basis for a belief is deliberately sought and its adequacy to support the belief examined”. This latter is called reflective thought by Dewey and it is also the only one with an educative value, thus the key to human progress, and because of that the primary subject and, at the same time, goal of philosophical inquiry.

Now, how can we put into this framework pictorial thinking? What are the special possibilities for the four different levels in regard of thinking in pictures? Is there indeed a space for reflectivity in the domain of the visual?

The basic condition for reflection is the possibility of taking a look at a certain object repeatedly in order to build up a concept of it. Which means that the image has to be fixed so that the procedures of analysis can take their place. In the case of visual information that has been done in many different ways through the centuries. Making visual recordings of our reality arguably opened up a new dimension for reflective thinking. It is supposed that the scope and depth of human knowledge will be significantly influenced (or even determined) by the modalities of visual information recorded via specific technologies with certain technical properties.

The theoretical insights outlined above will be examined against some practical case studies of (a) security camera footages, (b) timelapse videos, and (c) media art works. Industrial video recorders present an objective, unaffected gaze of technology on the world. Human beings are represented by grey silhouettes wandering in an homogeneous, faceless evidence of objective reality. What is seen is taken granted as clear evidence for safety purposes or criminal investigations. The special tricks of showing images recorded at the same place but over a rather wide range of time and presented in a fast-play mode serve differently. Although using images of reality these are stepping over consciously into the realm of unreality in order to give an additional piece of knowledge, namely an experience of the abstract notion of time.

Finally, in the image performances of Noah Kalina the form just mentioned arrived at an individually original and highly reflective artistic usage. There the self-image, its repeated recordings, and the publication of all that as a virtual time-lapse video may give some unique ideas. That kind of compression of information goes well beyond the thoughts made possible by our non-visual culture. The aftermaths of Kalina's work in popular culture give the example of thoughts disspreading across various cultural domains, while the documentary video projects conducted by Ridley Scott and Kevin Macdonald make use of these ideas consciously with the aim of entering transcultural dimensions. In my belief, all these can show a road which leads from fundamental unreflected imagery to pieces of genuinely reflective high-level visual thought.



**VISUAL RHETORIC,  
VISUAL POLITICS**



[SEE THE VIDEO](#)

*Petra Aczél*

Corvinus University of Budapest

## **Visual Rhetoric of the COVID-19 Pandemic – Some Tentative Assumptions**

### **Prologue**

“Virus discourse ... invaded the cultural unconscious of our day with the emergence of AIDS in the 1980s” – this is how Ruth Mayer<sup>1</sup> starts her essay on the rhetoric of threat and terrorism. More than a decade later we may assume that it is not only the common “cultural unconscious” but our general existence that the virus discourse of the novel coronavirus (SARS-CoV-2, further referred to as COVID-19) invaded. We are in the brave new world of a new global pandemic.

Discourses are formative communicative acts providing meaning to what is around and within us. According to Teubert:

Never before have so many people felt such an urge to make sense of the world they live in and of the lives they are leading. They find this sense not so much in themselves as in the discourse, which is the entirety of everything that has been said

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<sup>1</sup> Ruth Mayer, “Virus Discourse: The Rhetoric of Threat and Terrorism in the Biothriller”, *Cultural Critique* spring, 2007, No. 66, pp. 1–20, p. 1.

and written by the members of the discourse community to which they owe their identity.<sup>2</sup>

Sharing his idea on the influence of discourse on our lives we shall, at the same time, refute his claim that discourses exclusively entail what has been said and written. There is much more to discourses, a whole realm of communication is missing from what Teubert posits. This realm is the visual. Indeed, images and pictures hold consistent meanings, have their syntactics and function pragmatically in social situations. Discourses are thus the entirety of everything that has been said, written and pictured. At the same time, discourses are by nature rhetorical. “Discourses of institutions and popular culture are rhetorical in the sense that they situate us in our worlds: they shape our ideas about ‘the way things are’, who we are, where we belong...”<sup>3</sup> For these reasons, virus discourses can be created and understood visually as well. On the other hand, virus discourses are inherently rhetorical and persuasive, that is intentionally tailored to arouse awareness, apprehension and activity against viruses. These are the propositions the present paper bases its assumptions on.

## Visual Rhetoric

Visual rhetoric has been a subfield of the ancient faculty for more than two decades now. Most generally defined as the study of the relationship of visual images to persuasion, it supplied rhetoricians with analytical methods to better see how images behave, how pictures act suasively. Besides, visuality has been rediscovered as the immanent part the rhetorical. Consequently, three approaches to con-

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<sup>2</sup> Wolfgang Teubert, *Meaning, Discourse and Society*, Cambridge: Cambridge University Press, 2010. p. 1.

<sup>3</sup> Martin Nystrand – John Duffy, “Rhetoric, Writing and the Everyday: Some Preliminary Remarks”, in M. Nystrand – J. Duffy (eds.), *Towards the Rhetoric of Everyday Life: New Directions in Research on Writing, Text and Discourse*, Madison: The University of Wisconsin Press, 2003, pp. vii-xiii, the quoted passage on p. ix.

ceive of visual rhetoric have been developed.<sup>4</sup> The first, Visual Rhetoric as product, focuses on the operations by which pictures, images influence the receiver. Visual characteristics are analyzed in order to identify, categorize and apply the tools pictures move us by. Diverging from this functional approach, visual rhetoric as process considers visuality to be the grounding for reality, a dimension of everyday life that does not represent but create experience; relate the person to the concrete situation by images. Finally, visual rhetoric as procedure is about the logic of seeing, about visual thinking as a procedure of rhetorical practices.

The present essay addresses the question of how news media images of the COVID-19 virus discourse have behaved rhetorically. In doing so, it applies the views of all three approaches, assuming that 1) these images can be investigated in terms of their persuasive impact (product), that they 2) situate us into the reality of the pandemic (process), and that 3) they exploit the logic of seeing that is creative, selective and contextual. Every assumption formulated here shall remain tentative as the sample for analysis was randomly chosen from news media coverage and the corpus is thus not thorough. Nevertheless, I aim to cast some light on the efficiency of the visual rhetoric of COVID-19 and the typical visual rhetorical figures of epidemics both in the past and present.

## **The Challenge to Picture an Epidemic**

For centuries visual art has most generally represented contagious diseases by three distinguishable rhetorical-argumentative means: by the causes, by the consequences and by contrast, all three aiming to warn and remind the viewers of the horrors of the illness. The former two belong to the trope of the metonymy, the latter is in itself a rhetorical

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<sup>4</sup> Brian L. Ott – Greg Dickinson, “Visual Rhetoric and/as Critical Pedagogy”, in A. A. Lunsford (ed.), *The Sage Handbook of Rhetorical Studies*, Thousand Oaks, CA: Sage, 2009, pp. 391–405, see also Petra Aczél, “Mediarhetoric: Complex Visual Literacy”, in A. Benedek and K. Nyíri (eds), *The Iconic Turn in Education*, Frankfurt/M.: Peter Lang, 2012, pp. 67–84.

device. In paintings of deathly epidemics like the plague or the Spanish flu the consequences were shown by depicting suffering or death, the causes were symbolically-religiously pictured as affecting the sinners explaining the disease as punishment, while contrast was used to portray cure and empathy administered or expressed to the tainted ones by saints, doctors, or helpers. However, there were fusions of these for instance in the figure of the plague doctor who also served as a symbol of death. These artistic representations have been normatively symbolic and allegoric (even impersonating the disease, see Arnold Böcklin's *Plague* from 1898), exploiting the culturally accepted visual lexicon – colours, composition, quantity, quality) of the three rhetorical means. Spread was manifest in the amount of the people affected, seriousness in the style of fatalities. As a matter of fact, these paintings still manage to convey the message of threat and horror to the viewer of today with the dramatic explicitness of the agonizing body/ies, and the elevating transcendence of help.



*Paulus Furst von Nuremberg,  
Doctor Schnabel of Rom, 1656.*



*Peter Paul Rubens,*  
*The Miracle of Saint Francis Xavier, 1617.*



*Edward Munch, Self-Portrait*  
*with Spanish Flu, 1919.*

We are over the iconic turn and within the continuous revolution of image-technologies. Everything can be simulated as real, but reality cannot be shown in its pure actuality. Morally and legally the rights to our personal/sensitive data (medical records among them) should not be harmed and overruled by the rhetorical aim to raise awareness or apprehension. Therefore, in the media coverage of COVID-19 it is legally prohibited to show the explicit suffering of an individual. As art is not used any more for the representations of diseases with photography taking over when depicting consequences and medical help, symbolism lost its function to standardize expression. As it turns out, the causes or consequences of COVID-19 have become almost impossible to be (legally) shown in pictures. Identities of helpers-saviors-doctors should not be recognizable, struggling

bodies and faces cannot be shown explicitly. The disease is thus depicted by alienating contexts and contrasts, that is with highly technicised hospital environments and the contrasting lying-standing position of the patient and the medical staff.

We should, indeed, feel fortunate that our personal suffering, our individual bodily and mental states are forbidden to be exposed by the media. Nevertheless, this is what I call the necessary political correctness of images. While doubtlessly this is what we all should stand for, in case of a pandemic, images of the virus discourse seem to have lost some of their drive to warn.

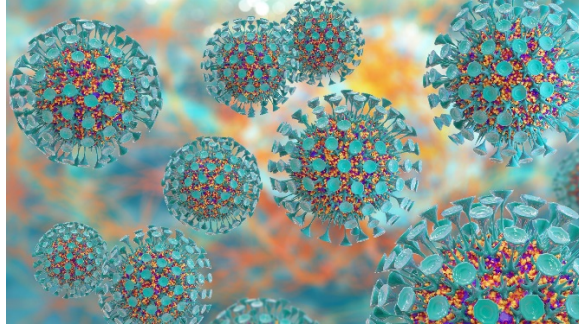


*COVID-19 patients in intensive care in Bergamo, Italy  
– Sky News, 11 September, 2020.*

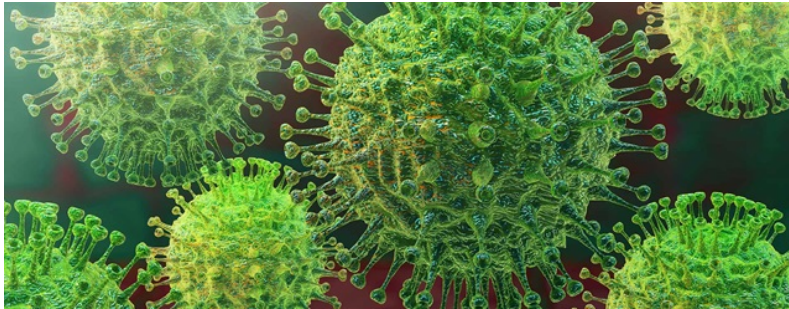
## **How to See a Virus?**

Viruses are submicroscopic parasites, their sizes range from 5 to 300 nanometers (apart from the much bigger giant viruses that have the diameter of 0.4 micrometers). They are certainly invisible to the human eye. In addition to this, their shapes are not particularly identifying. The laic viewer of the model-image of a coronavirus may think that with its helical capsid and arrogant spikes it has a specific look. In fact, it does not have. Viruses can take four forms, the helical, the polyhedral, the envelope and the binal (complex). Coronaviruses, similarly to HIV or influenza A, belong to the envelope-shape group.

Which means that the depiction of a coronavirus is not distinguishable from that of HIV for instance.



*HIV virus*



*The novel coronavirus*

Consequently, viruses as causes of the pandemic are not capable of being pictured in a specific way. Even though they may be represented with scientific precision and fascinating, colourful details, their metonymic depiction as a cause may lack rhetorical force. They are not explanatory, not specific and may not be seen as dangerous. In pictures of the coronavirus amplified to a size big enough for a person to fight rhetoricality is considerably enhanced, while the underlying concept of fight and war is triggered in a metaphoric way.



*Medtechnews, 6 July, 2020,*

<https://www.med-technews.com/news/medtech-firm-receives-2m-for-tech/>.

## **On the Efficiency of the Visual Rhetoric of the COVID-19 Virus Discourse**

Present news media images of the coronavirus still seem to work with the argumentative devices of cause, consequence and contrast; figuratively speaking with metonymy and metaphor. Nevertheless, as photography and digitally formulated pictures replaced artistically created paintings, the rhetorical functions of these devices have considerably changed. The cause – the virus itself – is shown to prove that it is present. It has almost no persuasive force. The consequence (intensive medical treatment, patients' own visual-video narratives) is pictured to raise awareness and arouse anxiety. The contrast – for example, a certain number of officials standing and announcing safety measures – may not elevate suffering to a higher moral ground. Spread and fatality is expressed by – mostly interactive – graphs, charts and diagrams.<sup>5</sup> These virus-images of today do not warn, do

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<sup>5</sup> See examples of depicting the spread and seriousness of COVID-19 at these links: <https://graphics.reuters.com/CHINA-HEALTH-MAP/0100B59S39E/index.html>; <https://www.politico.com/interactives/2020/number-of-coronavirus-cases-by-country/>; <https://www.theguardian.com/world/datablog/ng-interactive/2020/apr/22/see-how-coronavirus-can-spread-through-a-population-and-how-countries-flatten-the-curve>; <https://ourworldindata.org/covid-hospitalizations>.

not frighten and presumably do not morally teach the way their artistic forerunners did.

We may recklessly conclude that this is the best for our souls and minds – news images will not hurt us anymore, at least. On the other hand, we shall concede that visual rhetoric as product, process and procedure of the present pandemic partly failed to serve its aim to persuade us to remain safe, protect others and ourselves, apply safety measures with rigor. While thousands of texts are disseminated daily on what this pandemic means, we may claim that the number and quality of the visual rhetoric of this discourse has lagged behind. This is what the present essay wished to humbly highlight, inviting the scholarly thought to closer investigate the rhetorical behaviour of COVID-19 images.



[SEE THE VIDEO](#)

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## **Manipulated Video, Media Savvy and the 2020 U.S. Presidential Election**

This paper investigates the influence of manipulated video – a form of political disinformation – in the context of the 2020 U.S. presidential election. While the 2016 election cycle was characterized by an unprecedented rise of digital disinformation, much of it new to American audiences and conveyed through porous social media platforms without much user awareness of its origins, the years following the election have witnessed the pilot testing of new forms of political video distortion. Techniques used to manipulate video include slowing down content to make an opponent seem intoxicated, sleepy, or dim-witted (a tactic used against Nancy Pelosi and Joe Biden); speeding up content to make a target appear more aggressive than they are in real life (used against CNN reporter Jim Acosta); or, the insertion of synthesized words into an interview designed to make the opponent look more aligned with a political stance than they really are (Joe Biden’s interview with activist Ady Barkan). Once manipulated, these clips follow a fairly predictable path towards mainstream notice: first, they are released on a hyper-partisan or “alt.media” website, where they would otherwise languish except for being picked up and circulated on Twitter by a prominent politician (e.g., a member of Congress or even the White House press office). Then, they are noticed by mainstream media and covered as political news.

Along with “deepfake” videos, made possible by advances in machine learning algorithms and video editing software that allows existing footage of a target candidate or politician to be synthesized and altered with someone else’s likeness, mannerisms, and speech, manipulated videos are creating opportunities for propagandists to further imperil the already compromised political communication environment by casting doubt on the wider system of public information on which democracy rests. Without confidence in the informational foundation of politics and policy making, all arguments and assertions are equally valid – and equally suspect.

The vulnerabilities that manipulated video exploit operate at both the organizational and personal level. Organizationally, the 24-hour news cycle and hyper-commercialization of U.S. media places a premium on scooping the competition and breaking new developments first, often at the expense of accuracy. In this rush to publish, false information can circulate before it is identified as fraudulent. The problem is even more pressing on digital platforms. In the wake of the 2016 election, several studies documented how fake news often spreads faster than real news on social media. More recently, distorted videos of journalists and politicians have been circulated for political purposes. Although Twitter and Facebook have banned deepfake videos ahead of the 2020 presidential election, including content that has been edited “in ways that aren’t apparent to an average person and would likely mislead someone” if viewed, this does not prevent circulation of content that is considered parody or satire – or video that has been edited to remove words or change the order in which statements appear.

On a personal level, manipulated video poses a serious concern because the typical voter does not have the interest, technical skill or motivation to research whether a given video presented as real is bunk or actually holds informational currency. As psychological research on “believing the unbelievable” has shown, the tendency when confronted with new information is to accept it as true first and then only reject it subsequently if assessed as false. In most situations, the deck is stacked in favour of accepting false information rather than rejecting it – a proposition even more likely to hap-

pen when a deepfake video appears indistinguishable from the real thing. Recent research by Vaccari and Chadwick<sup>1</sup> has documented how just under 50% of participants in a study of a deepfake video posted for educational purposes by BuzzFeed of former President Obama were deceived by it, despite the video's improbability (e.g., Obama calling Donald Trump a derogatory name). They conclude that people are more likely to feel uncertain than to be misled by deepfakes but this resulting uncertainty, in turn, can reduce trust in news, particularly on social media. Deepfakes and manipulated video may thus contribute toward generalized indeterminacy and political cynicism, further intensifying recent challenges to online civic culture in democratic societies.

In the face of these challenges and developments, this paper summarizes the findings of an original experiment where four political videos were shown to viewers using an online survey. Two of the videos were original interviews with Joe Biden and Nancy Pelosi, and two were different versions of an attack video released by the office of Steve Scalise, U.S. House minority whip. Results show that partisans (Republicans) evaluate the doctored version of the attack video more favourably than the non-doctored version while Democrats and Independents evaluate it more negatively. However, this was not uniformly true: Democrats and Independents who were low in news knowledge rated the doctored video almost as high as Republicans, suggesting they were affected by the manipulated portion of the video. Media savvy thus has the potential to moderate the persuasive effects of manipulated video (and other suspect content) and should be factored into efforts to combat information distortion.

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<sup>1</sup> “Deepfakes and Disinformation: Exploring the Impact of Synthetic Political Video on Deception, Uncertainty, and Trust in News”, *Social Media + Society*, vol. 6, issue 1 (January-March 2020), pp. 1–13 (<https://doi.org/10.1177/2056305120903408>).



[SEE THE VIDEO](#)

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## **Politicians in the Picture**

### **Self-personalization in the 2020 Democratic Primaries**

The personalization of political communication is a process which refers to politicians' increasing willingness to share information about themselves as private persons. In this research, I focused on three different layers of political personalization: emotional, private, and professional communication. Emotional communication refers to the expression of politicians' personal feelings. Private communication is related to information about the politicians' private lives, while professional personalization is connected to politicians' official activities as individuals.

The rise of social media accelerated the process of personalization by providing a new platform for politicians to share their personal thoughts accompanied by images and videos of their private lives. The aim of my research was to further explore the use of social media as a context of personalization. The variable I took into consideration was the sex of individual politicians. Research showed that it is favourable for men to portray their private lives in their political communication; however, it has the opposite effect on women's representation. Therefore, I hypothesized that male politicians posted more pictures which show the private category of personalization and females shared more professionally personalized images. Moreover, I assumed that to counter stereotypes of being "warm" and "nurturing",

women candidates posted less photographs of the emotional layer as compared to men.

The corpus consisted of the images posted on four 2020 Democratic presidential primary candidates' official Instagram account. Posts shared by two males who remained in the race for the longest period (Joe Biden and Bernie Sanders) and two female candidates who were in the race for the longest time (Tulsi Gabbard and Elizabeth Warren) were studied. The analysis involved photographs shared between 3 February (the first primary votes) and 3 March (Super Tuesday) which meant that I examined 314 posts altogether.

I marked an image as personalized if the candidate was depicted. The three levels of personalization could appear simultaneously in one picture, i.e., a photograph in which the candidate at a rally laughed was both professional (it is a professional setting) and emotional (they explicitly showed their emotions). The ratio of emotional, private, and professional pictures was calculated in comparison with all the images posted between 3 February and 3 March.

Private personalization was determined on the basis of the context and the characters in the pictures. If the setting of the images was not related to politics or political campaigns (e.g., offices or rallies), the post was categorized as private. Thus, the private level included photographs taken in the gym or on holidays. Moreover, photographs in which the candidates' family was present were also categorized as private. The analysis showed that Gabbard posted the most private posts (23%) in comparison with her overall Instagram images. Warren posted the second highest ratio of private photographs (15%), then Biden (14%), and Sanders (6%). In turn, Warren shared most professional images (67%), followed by Biden (40%), Gabbard (38%), Sanders (36%).

The pictures which were considered as emotional displayed the explicit expression of emotions by the politician, for example smiling, laughing, or crying. The results indicated that Warren shared the highest ratio of emotional photographs, which means that 32% of all the pictures she posted during the observed period were emotional. The second candidate was Biden (23%), followed by Gabbard (15%) and Sanders (6%).

The results showed that during the observed period, candidates' sex did not unequivocally determine whether they exploited the emotional, private, or the professional levels of self-personalization.<sup>1</sup>

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<sup>1</sup> This research is funded by the project titled "Political communication in the age of expressivity. What are the discursive mechanisms of expressive, emotional and uncivil political rhetoric in Hungary?" under the grant agreement no. 131990.



[SEE THE VIDEO](#)

*James E. Katz – Kate Mays*  
*– Yiming “Skylar” Lei*  
Boston University

## **Facial Recognition Technology: Analyzing the U.S. Public’s Outlook**

From human rights defenders and system builders to ordinary citizens, there’s been considerable unease about the privacy implications of artificial intelligence (AI) supported facial recognition technology (FRT). Fearing misuse, activists in many Western countries have succeeded in getting the potentially highly beneficial technology of facial recognition restricted or even banned and recently IBM backed away from developing it further. Their fears are well-grounded: One need only consider China to see how facial recognition can exert social control over vast populations, often with stark implications for personal autonomy.

To better understand FRT in national setting, we surveyed in 2019 a representative sample ( $N = \sim 1500$ ) of the U.S. population. As part of a larger omnibus survey, we asked respondents their opinions on five-item scale concerning comfort with various FRT applications. They were:

1. Deploying round-the-clock facial recognition technologies on roads to look for known terrorists; this proposal made 57% of the respondents uncomfortable while 21% were comfortable with the idea.

2. Using facial recognition to anonymously record the age and/or gender of shoppers, which made 49% of the respondents uncomfortable while 27% were comfortable with the idea.
3. Anonymously recording facial recognition information about shoppers' income and/or sexual orientation; this proposal made 39% of the respondents uncomfortable while 39% were comfortable with the idea.
4. Using FRT for tracking and/or recording and monitoring movements of people in subsidized housing areas, which made 36% uncomfortable while 37% were comfortable with the idea.
5. Using FRT by police to scan crowds to look for criminals, which, similar to the fourth question, made 36% uncomfortable while 37% were comfortable with the idea.

Using multivariate analysis, we explored the relative statistical contributions of various constructs to predicting FRT comfort. We found two variables that combined to account for 5% of the variance in the attitude scale; these were gender and race/ethnicity. No other demographic variable (including, surprisingly, age) had further statistically significant contributions to explaining variance in the dependent variable, i.e., comfort with various facial recognition public deployment scenarios. In terms gender, when compared to males females were less comfortable about uses of FRT. In terms of race/ethnicity and FRT comfort, those identifying as non-white race/ethnicity were less comfortable than those identifying as white race/ethnicity.

Looking broadly, given the use of technology levels, historical and contemporary experiences, and social positional contexts, our findings about comfort levels with FRT make sense. Though technology and public safety advocates might argue that the historically disadvantaged groupings would differentially benefit from FRT, that is not the way the typical respondent seems to see the matter. Contrarily, civil rights advocates are likely to see these disadvantaged groupings to be further diminished or harmed by FRT, a view that accords with the survey results.

A surprising finding, as noted above, was the absence of cohort or age effect after accounting for gender and race/ethnicity. One possible explanation for this might be that the traditional lack of familiarity with contemporary technology, something that increases by age/cohort, is counterbalanced by the likely increasing personal safety concerns that accompany aging. That is, however much older people may tend to be less comfortable with new technologies compared to younger people, their belief that these technologies may help safeguard them as their own physical capacities diminish, could account for this otherwise counter-intuitive result. This possibility remains speculative.

Surveying the terrain of facial recognition policy, threats to civil liberties and equitable treatment remain tangible and profoundly important. Benefits of facial recognition, while also tangible, tend more towards administrative convenience, such as at airports, border control stations, and consumer service delivery points. These benefits must not be understated: They have been used to fight crime and terrorism, occasionally with great effect, and can facilitate efficient service to the public. Still, despite this, their performance often seems to lag the promised payoffs in crime prevention.

The critical issue facing FRT deployment is how to secure the benefits of FRT while protecting human freedom and civil liberties. Both sides of the equation have important arguments, but in democracies it may be public opinion that is determinative. Judging by the results of our 2019 survey, and despite some sectors of marked enthusiasm, the American public prefers a restrained approach.



[SEE THE VIDEO](#)

*Andrija Šoć*

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## **Politics of Images in Deliberative Democracy**

In several traditions of political philosophy, the relation between rational and non-rational aspects of our civic engagement has been mostly considered from a one-sided perspective. The dictum that “might equals right” was understood as a claim that political subjects too often let their self-interest be guided by purely instrumental rationality. Rationality is seen as a way to obtain these goals, and politics is an arena in which, through different levels of compromise, propaganda, misinformation and “backroom deals”, the most successful political actors simply manage to temporarily outmaneuver their opponents.

Such a perspective holds the non-rational part in fairly low regard and the importance of images for concrete citizens is relegated to studying the effects of machinations by those in power or by those who want to come into power. Another body of work in political philosophy – theory of deliberative democracy – aims to solve the problems in political arenas by including citizens more prominently in political processes. However, as many indicators show, the polarization, lack of trust, the advent of propaganda in the form of fake news all keep increasing, even as the pertinent information on political agents is more ubiquitous than ever. Emphasizing rationality is no longer enough, and it can no longer be the sole goal of the heritage of the enlightenment.

Instead, we have to focus on how the non-rational and rational aspects of our political thinking can go hand in hand and work in tandem to defuse the rise of negative political trends. Thankfully, there is the empirical basis for doing just that. In recent years, there have been numerous studies on how deep disagreements are resolved through deliberation, and the one that most strikingly leads us to the importance of images in that quest was developed by Steiner and his colleagues (J. Steiner et al., *Deliberation Across Deep Divisions*, Cambridge: Cambridge University Press, 2017). The setup of the research is straightforward. Opposing groups share a conversation on a topic that should be of common interest. In a particularly telling instance, former members of Colombian guerilla and former members of Colombian paramilitary forces were discussing the economic future of Colombia. Since the two groups were embroiled in a bloody, decades-long conflict, there was initially a strong inclination to discuss in an aimless, fruitless manner. To measure the quality of deliberation, Steiner and his associates developed two measurements. The first is DQI, discourse quality index (J. Steiner et al., *Deliberative Politics in Action: Analyzing Parliamentary Discourse*, Cambridge: Cambridge University Press, 2005; J. Steiner, *Foundations of Deliberative Democracy*, Cambridge: Cambridge University Press, 2012) and the second is DTM, the concept of deliberative transformative moments (Steiner, *Deliberation Across Deep Divisions*). What the research shows is that even in the described setup, there have been positive transformative moments in the discussion, though the DQI was fairly low. And although low DQI is to be expected in a scenario where participants don't have much deliberative experience, that there were positive moments of a fruitful discussion beneficial to both parties should be a clear signal for optimism.

Here is where the examination of images becomes pertinent. Namely, in 15 of 79 cases, telling a personal story helped the discussion and made others view the opposing viewpoint more favourably. On the other hand, in 14 of 79 cases, providing a rational justification had the same effect. What made personal stories so compelling for the other side is the evocative power of images conjured up during the discussion. When a struggling mother tells a poignant tale of her

economic plight, a hardened battle-tested veteran will see that her problem is the same as the problem he and his family deal with every day. The picture she paints of her suffering is more powerful than the differences they have had in the past, regardless what those differences were. In that sense, the political concept of images is far richer than it has been thought of and its extent goes far beyond the study of the negative effects of images on citizens.



[SEE THE VIDEO](#)

*Trischa Goodnow*  
Oregon State University

## **The Museum of Incomplete: The Paradox of Visual Synecdoche**

Gun violence is a major social issue in the United States, with 100 people on average killed every day. Causes and solutions to the problem run the gamut from too many guns in the streets to too few mental health remedies. On February 14, 2018, a former student entered Marjory Stoneman Douglas High School in Parkland, Florida and proceeded to kill fourteen students and three faculty members. Joaquin Oliver was one of the students killed. Prior to the attack, Joaquin's father Manuel was a graphic designer. After the attack, Manuel Oliver became a one-man crusade to use art to end gun violence. The senior Oliver created sculptures, murals, posters, and videos to raise awareness about gun violence and the need to solve it.

However, a particular project that Manuel Oliver initiated is of special interest in understanding the way that images move an audience. He created the Museum of Incomplete. According to the website, "When a life is taken due to gun violence, the loss experienced by friends, families, and communities is unimaginable. It is our duty to change gun violence statistics from numbers into the harsh reality that lives are being lost." To accomplish this goal, the museum collects artifacts from victims of gun violence to represent what they left unfinished. For example, the first artifact visible on the homepage is Joaquin Oliver's basketball shoe (Figure 1). Joaquin was a skilled bas-

ketball player and his team was headed for the playoffs when he was killed. So, the shoe represents his incomplete season.



*Figure 1: Joaquin Oliver's basketball shoe from The Museum of Incomplete. Used by permission of Manuel Oliver.*

These artifacts function as representations of what was lost. Herein lies the paradox of representation. The artifacts function as a synecdoche for the victim of gun violence. A synecdoche is a literary device where a part stands for the whole. A classic example of synecdoche is “lend me a hand”. Clearly, a person asking this wants the participation of the whole body. The audience is enlisted to make the leap from part to whole. In the Museum of Incomplete, the physical artifact represents, not only the person, but what that person cannot complete. The artifact is a physical trace of the person.

The argument behind the Museum of Incomplete is that examining these physical traces confounds the viewer with the conflict between absence and presence. The physical artifact is there. In any

other context, Joaquin's shoe would just be a shoe. However, in the context of the Museum of Incomplete, the shoe now represents Joaquin's life cut short; it now represents what is not there.

The utility of what is left behind in a museum is approached in the writing of Heidegger who used a painting by Van Gogh to explore the "being" of art.<sup>1</sup> Heidegger laments the lack of information in the image. One can draw conclusions about the type of shoe, its state of use, but little else is conveyed. Nyíri extends Heidegger's suggestion by positing that the shoes in Van Gogh's painting represent "death because of what they do not show: the person to whom they belong, or formerly belonged".<sup>2</sup> Indeed, Nyíri emphasizes the tension between absence and presence.

I argue here that The Museum of Incomplete asks the viewer to fill in what is absent because acknowledging the absence is essential for change. The logo for the museum conditions the viewer to make the leap from presence to absence back to presence (Figure 2).



THE MUSEUM OF  
INCOMPLETE

*Figure 2: Logo for The Museum of Incomplete.  
Used by permission of Manuel Oliver.*

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<sup>1</sup> Martin Heidegger, "The Origin of the Work of Art", in Heidegger, *Poetry, Language, Thought*, transl. and intr. by Albert Hofstadter, New York: Harper & Row, 1971, pp. 32 f.

<sup>2</sup> Kristóf Nyíri, "Images in Natural Theology", in Russell Re Manning (ed.), *The Oxford Handbook of Natural Theology*, Oxford: Oxford University Press, 2013, p. 591.

By using the suggestion of letters, the museum asks the audience to make sense of what is left behind and to fill in what is left out.

In much the same way, the relics found in the museum ask the viewer to make sense of what they see: a basketball shoe, an unfinished sketch, a family photo, a day planner, a journal. By recognizing what *is* there, the viewer must also recognize what is *not* there – the victim of gun violence. Thus, by completing the first parts of the equation (presence plus absence), the audience must acknowledge the whole of the story. Consequently, the synecdoche offered by the museum leaves the viewer feeling the absence more than the presence. The part becomes the whole of what remains. In so doing, the museum seeks to persuade viewers that more absence is unacceptable.

The Museum of Incomplete confounds the viewer by showing the trace of a victim of gun violence, propelling the viewer to feel the profound loss of what has been left undone. The synecdoche, in a sense, remains incomplete because the artifacts will remain forever unfinished. This is the paradox of gun violence in the United States; the Second Amendment of the U.S. Constitution insures the presence of guns but also the absence of lives.

**VISUALIZATION /  
VISUAL METAPHOR THEORY**



[SEE THE VIDEO](#)

*Livia Barts*

## **Interpretative Text-visualization Practice to Aid Reading Comprehension**

I present here a teaching-learning practice that uses interpretation-based, manual (not computer-generated) text-visualization to aid the understanding and interpretation of abstract academic readings in the field of humanities. The practice relies on my work as a visual facilitator, graphic recorder and designer, and was developed as part of my PhD research at the Faculty of Humanities of ELTE, Budapest, where I research visual communication, and visualization methods in knowledge communication, education and training. The method was developed in joint work with dr. Beja Margitházi (Dept. of Film Studies, ELTE), during 3 semesters of small-group reading seminars for BA and MA students of Film, Media, Communication, Aesthetics and General Humanities. Our practice is based on the hypothesis that the visual-interpretative transformation of the argumentative/logical pattern of a linear text supports the students' more thorough understanding of its key conceptual framework, and helps to evade non-reflected "short copies".

What do we mean by that? In our experience, when students read an academic text (e.g. film, media or art theory in our case), they underline or highlight key words and phrases, then copy them to short study notes that they use to prepare for a test or an exam. These concise extracts seem easier to study than the originals (1–2-page notes vs. 10–15 printed pages), however, they are often mere copies

of the phrases in the given order without much active reflection on their meaning or conceptual relations, thus not necessarily helping critical understanding, interpretation, analysis or contextualization of information. But developing critical reading and thinking skills is a crucial pedagogical objective in humanities education. Our visual interpretative method aims to strengthen these skills by introducing a transformational task from textual-linear to visual-diagrammatic composition.

The texts we worked with (by authors such as Laura Mulvey, Walter Benjamin, Lev Manovich, Michel Foucault, and others, selected from departmental curricula) often use highly abstract language and abstract concepts which need to be defined in relations, circumscribed by other concepts. The understanding and interpretation of such texts heavily relies on a relational work: on clarifying how concepts relate to each other within and outside the text. In humanities disciplines this work is mostly done through verbal-linear tasks (discussions, close reading sessions, essays). To add an alternative perspective to the traditional interpretative methods, we used a visual-diagrammatic approach: we asked students to map the conceptual relations in two-dimensional diagrams instead of linear notes. This visual transformation meant taking a step backwards from the text, switching to an overview perspective, to a big-picture scale. However, to create such conceptual diagrams, one needs to thoroughly understand the text with a critical mind: the previously mentioned non-reflected short copies can be evaded.

In these experimental seminars we dealt with each text along a four-step process. Firstly, students read the text at home accompanied by a reading log. Secondly, we had a traditional in-class close reading session with the group to mark key concepts and structural units within the text. Thirdly, students individually created their own visual interpretations, visualizations of the text as a home assignment. They were asked to seek a visual arrangement (conceptual grid, diagram, visual metaphor etc.) in which they could express their own understanding of the key conceptual connections and the core arguments. In the fourth step, the students were to create a large-scale visualization in class, in group-collaboration. In this session they

briefly presented their individual visuals, then, as a group, they discussed them, decided on the general structural layout, chose patterns, highlights, and the solutions that can most effectively illuminate certain segments of the text. We prepared for them a large sheet of paper on the wall, cards with the key concepts, coloured paper and markers. In this class we were facilitators and mediators: asking questions, but letting the students negotiate the creation process.

Based on these three semesters the most important results were: 1) In their visualizations students aptly used basic means of visual communication, such as framing, colouring, arrows, connectors, letter styles, scaling and proportional differentiation to express connection, separation, hierarchy, categorization and logical connections. Each individual work was different, documenting each student's individual understanding process. However, there were structural similarities allowing common understanding and discussion. 2) During the creation of the group visual students argued for their choices of visual arrangement, thus actively discussing the text itself. The task of visual transformation was the explicit focus, but implicitly they did the relational work of text interpretation with an active, creative and critical attitude.



[SEE THE VIDEO](#)

*János Tanács*

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## **The Intertwined Role of Visualization and Historical Accuracy in the Challenger Launch Decision Making**

On January 28, 1986, the Space Shuttle Challenger exploded 73 seconds after launch. The explosion killed seven astronauts, including a civil teacher. Soon a presidential committee of inquiry was set up on behalf of President Ronald Reagan to investigate the causes of the accident. It turned out that an unplanned decision-making meeting was held the evening before the launch due to extreme weather conditions. The presidential committee concluded that the flaws of the decision making played a contributory but vital role in the accident.

During the meeting, engineers at NASA contractor, Morton Thiokol, who supplied the solid rocket booster of the space shuttle, suggested that the proposed launch in the extreme cold weather predicted for the next morning would pose a safety risk of the flight. They also suggested the launch temperature should not be lower than the lowest one measured during the former 24 missions performed so far, namely 53°F (12°C). This recommendation was unacceptable to the project owner NASA management. According to the view of the NASA officials, the contractor's engineers could not conclusively prove a correlation between the O-ring damage and the decreasing launch temperature. After some lengthy and serious debate, the rocket-maker finally gave his permission for the next day's launch.

Later the flaws of the decision-making became a field of scientific inquiry. Edward R. Tufte in his seminal work, *Visual Explanations: Im-*

*ages and Quantities, Evidence and Narrative* carried out one of the most interesting scientific investigations. He focused on the presentational character of the decision-making situation. Besides this Tufte criticised the contractor's engineers claiming that had not been able to articulate the risk of the cold weather launching of the space shuttle, to reveal the correlation between O-ring damage and temperature, and to prepare convincing presentational charts.

Tufte's work has some indisputable merits in relation to the importance of visual display. He proposed an overall O-ring damage score for each launch and based on it he made a graph. This graph clearly shows the correlation between O-ring distress and cool weather, and it also reveals the serious risks of a launch at the predicted temperature, 29°F. It seems that Tufte's analysis clearly shows the significance of the visualization of the data and evidences that played vital role in the fatal decision. At last he claims that "there are right ways and wrong ways to show data; there are displays that reveal the truth and displays that do not".

Despite the merits of Tufte's approach there are weak points in his investigation. Although Tufte's analysis is historically correct in relation to the visual aspect of the charts, but not in relation to the evidences that were available for the engineers at that time. Tufte supposed that the engineers had had all the relevant data which he used in the visual representation of the correlation based on his proposed calculation of the damage score. So, he supposed that engineers had had all the temperature data of the 24 previous launches and all the data that were needed to calculate the O-ring damage score of the seven problematic launches (O-ring erosion, heating, and blow-by). But only the data of six problematic launches had been available for the engineers to calculate the damage scores and only the two launch temperature data of these flights were known for them. Such a seriously incomplete database cannot be a base of a convincing visual presentation, since more correlational curves being substantially different from each other fit on the two pair of data. So Tufte's claim can be paraphrased in the following way: "there are right ways and wrong ways to treat (historical) data; there are visual presentations that show the structure of reality and ones that show fiction".

[SEE THE VIDEO](#)

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## **Moving Images in the Mercedes vs Jaguar Commercial Battle**

In *Strategic Maneuvering in Argumentative Discourse* van Eemeren mentions that advertisements can be analyzed in pragma-dialectical (PD) terms as contributions to discussions, but he does not specify his claim. I will do so by discussing the Mercedes vs. Jaguar commercial battle, which took place in 2013.

This exchange poses questions like whether it can be analyzed as a critical discussion, and if yes, how. Is it possible to resolve a difference of opinion in advertising? In Van Eemeren's view, commercial actors cannot be expected to resolve the critical discussion; it must be done by the customer. He believes that the only difference of opinion is between the product distributor and the customer.

A dialectical analysis of the advertisement is certainly relevant because listeners and readers will demand faithful information and good reasons for buying the advertised product.<sup>1</sup>

This definition shows us that through persuasion techniques, advertisements also provide customers with reliable information and solid

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<sup>1</sup> F. H. van Eemeren, *Strategic Maneuvering in Argumentative Discourse*, Amsterdam: John Benjamins Publishing Company, 2010, p. 235.

arguments. In this short paper I will show just two reconstructions, but in my presentation, I will give a full reconstruction.

### **Two Premises Syllogism**

1. (visual) PR: Due to the length of the cervical spine section of hens they are able to keep their field of view in stable condition.

2. (implicit) PR: The hen's cervical spine and Mercedes-Benz's MBC technology are based on a similar principle.

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Conclusion: The Mercedes-Benz's MBC technology is able to keep the car's body stable.

Jaguar's main message is created by redefining the pictures, in terms of argumentation the framing method is used as presentational tool.

### **Argument from Analogy**

Jaguar as animal

1. PR: Jaguar's beneficial features is the fast reflexes.

3. PR: Jaguar is on the top of the hierarchy, because it eats the hens

Jaguar as car

2. PR: Jaguar's beneficial features is the fast Cat-like reflexes.

Conclusion: Jaguar is on the top of the hierarchy, because it eats the personalized hens of Mercedes.

Are the rules governing these debates the same as the well-known rules of pragma-dialectics? My answer is that the majority of PD rules are applicable with slight modifications. Out of the ten rules of critical discussion four are applicable without modifications, with a modification we can apply three rules, but the closure- and usage rules are unadaptable. I will present in the Mercedes vs. Jaguar situation how dialectical and rhetorical goals are clashing with each other. I confirm that disputing parties strongly prefer choosing rhetorical efficiency to obeying dialectical rules, which derails the critical discussion, but that is a problem of the exchange and not a problem for the analysis.

Other analytical devices applied by PD must be modified in certain respects. In particular, the idea of the four stages of discussion are not readily applicable. For instance, the confronting stage is realizable before a real debate, but the closing stage is typically missing. In the opening stage, the parties do not agree on the subject of the discussion, and they do not set a point of departure. The argumentation stage is more specific in the Mercedes vs. Jaguar commercial, because companies are using multi-modal visual arguments, for this reason it is difficult to identify responses.

I argued that these advertisements are not single contents, because they can react to each other using multi-model visual arguments. In my view advertisements can be analyzed as a debate with a PD framework.<sup>2</sup>

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<sup>2</sup> Further suggested readings: D. S. Birdsell & L. Groarke, “Toward a Theory of Visual Argument”, *Argumentation and Advocacy*, vol. 33, no. 1 (1996), pp. 1–10; J. Anthony Blair, “The Possibility and Actuality of Visual Arguments”, *Argumentation and Advocacy*, vol. 33, no. 1 (1996), pp. 23–39; F. H. van Eemeren – Rob Grootendorst – Francisca Snoeck Henkemans, *Argumentation: Analysis, Evaluation, Presentation*, Mahwah, NJ: Lawrence Erlbaum Associates, 2002; Douglas Walton – Christopher Reed – Fabrizio Macagno, *Argumentation Schemes*, Cambridge: Cambridge University Press, 2008; Leo Groarke, “Going Multimodal: What is a Mode of Arguing and Why Does it Matter?”, *Argumentation*, vol. 29, issue 2 (2015), pp. 135–155; J. Anthony Blair, “Probative Norms for Multimodal Visual Arguments”, *Argumentation*, vol. 29, issue 2 (2015), pp. 217–233.



[SEE THE VIDEO](#)

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## **Toward a Theory of Visual Argument: Contexts and Multiple Temporalities**

In the field of argumentation studies, many scholars have attempted to theorize visual argument for some decades. For example, David Birdsell and Leo Groarke argued that it is essential to consider the questions of contexts in developing a theory of visual argument because contexts involve “a wide range of cultural assumptions, situational cues, time-sensitive information, and/or knowledge of a specific interlocutor”. In particular, they argued that three kinds of context (i.e., immediate visual context, immediate verbal context, visual culture) are the key in visual argument. Although I agree that their argument is still relevant, it is important to update it in a digital age as new media influence texts and contexts. In this paper, I attempt to theorize visual argument or to provide “a set of tools we can use to understand ordinary practices and beliefs [regarding visual images], with the specific intent of intervening in or changing the everyday world around us” following Grant Bollmer’s definition of theory. In particular, I extend Birdsell and Groarke’s immediate visual context which provides various contextual cues such as a progression of images and several messages reflecting multiple sources. To do so, I attend to a set of photographs or images which are juxtaposed or “being placed side-by-side” in a single frame. I argue that these multiplicities are significant in evaluating and interpreting visual argument,

especially when two or more different moments are juxtaposed in a single frame because they help denaturalize time amongst the viewers which, as a result, become part of an overarching argument.

In my recent work, I analyzed the juxtaposed images of Idomeni where Europe's largest informal refugee camp was located in 2015. The juxtaposed images from children playing around colorful tents to refugees queuing, on the one hand, and the landscape of the same spots without the refugees and tents, on the other hand are separated not by geography but by temporality as both of them were taken at the exact spot in Idomeni but at different times (i.e., before and after the closure of the camp). In witnessing these juxtaposed images, the viewer experiences, what Jaimie Baron calls, temporal disparity or "the perception ... of a 'then' and a 'now' generated within a single text" which includes a constant play between the presence of the camp and its absence or leftover space. Despite this absence of the Idomeni camp and refugees in the lower frame such as the cornfield, the tents with mud and the refugees in a queue become visible soon after the viewer glances at the upper frame. Through this experience, the viewer may be reminded of the poor living conditions of the refugees' lives in the tents and their desperation in seeking support. Through this play, the viewer may also be reminded of the remainder: refugees who were taken to different facilities in Thessaloniki after the closure of the Idomeni camp or who are still living in other informal camps or settlements in other cities. In this way, the juxtaposition of images creates an incongruity in a single frame, blurring the line between realities in the past and present moments and denaturalizing the conventional frame of reference for the refugee scenario. In turn, the juxtaposition could be seen as part of an overarching argument.

In another recent work of mine, I analyzed internet memes regarding the Japanese hostage crisis in Syria. Many internet memes updated on a site called "KnowYourMeme" used remixing of the original ISIS image. Remixing is one of the strategies used in internet memes which involves, what Michele Knobel and Colin Lankshear call, anomalous juxtaposition or "incongruous couplings of images". According to Limor Shifman, this strategy makes "the people featured

... appear to be out of context” and creates “a striking incongruity between two or more elements in the frame”. This remixing makes it difficult for the viewer to identify its immediate context as it intentionally removes the relationship between the juxtaposed images by making one of them appear to be out of context. At the same time, it keeps some similarities between the original and remixed images (e.g., colour of clothes, posture, gesture, etc.). By way of this process, remixed images remind the viewer of the original image/moment and allows him or her to acknowledge a progression of images from the original/reality to the remixed/fiction. Through these multiplicities, this meme creates an incongruity in a single frame, blurring the line between reality and fiction and denaturalizing the conventional frame of reference for a hostage scenario. For this reason, the meme using remixing could be seen as visual argument.



[SEE THE VIDEO](#)

*Xu Wen*

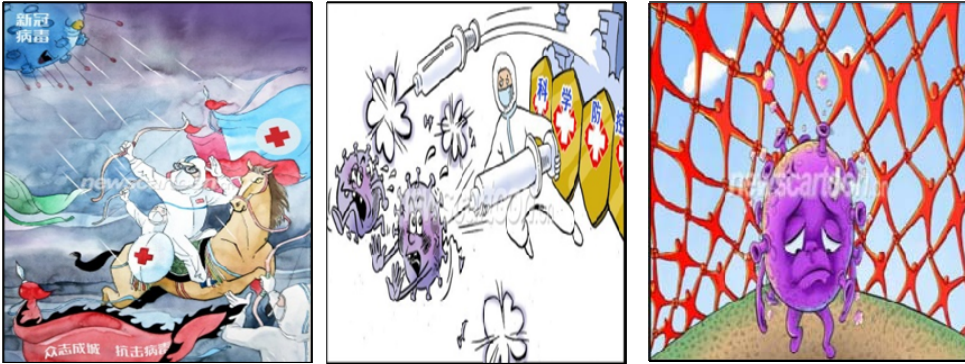
Southwest University, Chongqing, China

## **Visual Metaphors in News Cartoons on COVID-19 in China**

This paper is mainly about the visual metaphors in news cartoons on COVID-19, a pandemic that affects the whole world. Everyone unites to fight the virus. Anti-pandemic heroes fight on the front line, while many people stay at home and follow the related news every day. Many pictures are used in the news to communicate and transmit messages. This research aims to identify the visual metaphors in the news cartoons on COVID-19, and explain the meaning construction of these metaphors to reveal how the pandemic is conceptualized by Chinese people, based on their cultural attitudes towards it. All the visual metaphors demonstrate that the Chinese people are determined in the fight against the pandemic.

Firstly, these visual metaphors are set within three scenarios, including War scenario, Chinese mythology scenario and Go scenario.

Within War scenario, the target domains include Doctor, Patient, Medicine, Coronavirus, Mask, Unity, Pandemic Prevention and Control. The involved metaphors are displayed in the cartoons: Doctor is Soldier; Medicine is Weapon/Arrow; Coronavirus is Enemy; Scientific prevention is Shield; Unity is Wall/Net.



The myths and legends scenario is grounded in Chinese mythology, which is a product of the traditional culture in ancient times. There are a lot of metaphors related to stories and legends that are expressed through supernatural images and fantasy forms. For instance, COVID-19 IS WENSHEN (wēn shēn; the god of the plague); CORONAVIRUS IS A PLAGUE / A CATASTROPHE / A FEROCIOUS ANIMAL; SCIENTIFIC PREVENTION AND CONTROL IS BACK GUARD FLAG.



Metaphors in the Go Scenario: PANDEMIC PREVENTION AND CONTROL IS GO. The medical treatment is white, and the coronavirus is black. The game costs a long time and needs the skill to win, which signifies the pandemic prevention and control is time-consuming and requires strategy.





[SEE THE VIDEO](#)

*Ágnes Virág*

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## **Uncle State’s Hat: Metonymic Hybrids in Hungarian Editorial Cartoons**

The presentation aims to revise Charles Forceville’s statement that not all hybrids are metaphoric.<sup>1</sup> It also wants to reveal the possible metonymic structure of certain visual and multimodal hybrids. The main argument is the following: based on the conceptual proximity of its elements, a visual hybrid can be metonymic, merging two visible metonymic sources by referring to an invisible metonymic target in a given context.

A small dataset of nine editorial cartoons (1989–2019) were collected from Hungarian national dailies. The cartoons show the parliamentary dome that is prone to hybridization. The sample was purposely selected for its explicit focus on metonymic hybridization.

Before addressing the metonymic hybrids, we need to discuss what a visual metonymy is. In their newly published paper, Zahra Kashanizadeh and Charles Forceville set up a list of strict criteria<sup>2</sup>

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<sup>1</sup> C. Forceville, “When Is Something a Pictorial Metaphor?” (Lecture 2 in *A Course in Pictorial and Multimodal Metaphor*, 2005.) See especially p. 3, <http://www.chass.utoronto.ca/epc/srb/cyber/cforcevilleout.pdf>.

<sup>2</sup> Z. Kashanizadeh and C. Forceville, “Visual and Multimodal Interaction of Metaphor and Metonymy: A Study of Iranian and Dutch Print Advertisements”, in R.

saying that a conceptual metonymy consists of a source concept what allows the viewer to infer the target concept. Both concepts belong to the same conceptual domain in a given context. Furthermore, the choice of the source highlights certain aspects of the target by perspectivization and often has an evaluative dimension. In a visual metonymy its source must be depicted in visual mode, concurrently its target is usually missing. In a multimodal case, the source and the target are expressed in different or in mixed modes. According to Kashanizadeh and Forceville's analysis, cf. Figure 1, an Iranian ad presents the conceptual metonymy in which the CRESCENT MOON STANDS FOR THE RAMADAN (source-in target metonymy) and both the source (CRESCENT MOON) and the target (RAMADAN) belong to the Muslim culture. Additionally, we argue that this metonymy is supplemented by a multiple metonymic chain where the TOOTHPASTE STANDS FOR THE SMILE that stands FOR HAPPINESS which is FOR THE HEIGHTENED DEVOTION DURING RAMADAN. With this subsequent addition, we can recognize how the crescent moon and the toothpaste can create a visual hybrid through intertwined metonymical processes, and this phenomenon is referred as metonymic hybrid later on.



Figure 1: Metonymic hybrid



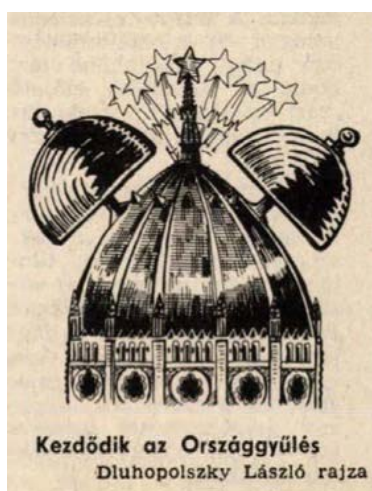
Figure 2: Metonymic hybrid

Similarly, Paula Pérez Sobrino cites a printed ad, shown in Figure 2, where a roll of Cling film is placed onto a piece of raw meat and their

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Benczes and V. Szelid (eds.), *Cognitive Linguistic Studies: Visual Metaphor*, Amsterdam / Philadelphia: John Benjamins, vol. 7, no. 1 (2020), pp. 78–110, cf. p. 81.

stacking recalls a traffic sign with the meaning of “do not enter”.<sup>3</sup> The message can be comprehended through conceptual metonymic processes: THE RAW MEAT STANDS FOR ODORS while the CLING FILM STANDS FOR PACKAGING. Their fusion formed in the traffic sign infers that the Cling film prevents odors in the refrigerator. As a consequence of the previous examples, we can define a metonymic hybrid as a fusion that fits the formula of the multiple source-in target metonymy in which two or more sources point toward the target concept of the metonymy.



*Figure 3: Metonymic hybrid*  
*Title: “The parliamentary session begins”*  
*(28.06.1989, Népszava, drawn by László Dluhopolszky)*

Finally, consider Figure 3, an example of metonymic hybrids from the selected dataset. Its topic is expressed by the title of the editorial cartoon: “The parliamentary session begins” that recalls the metonymic target, the PARLIAMENTARY SESSION. The image is made up of two entities, THE PARLIAMENTARY DOME and AN ALARM CLOCK.

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<sup>3</sup> P. Pérez Sobrino, *Multimodal Metaphor and Metonymy in Advertising*, Amsterdam / Philadelphia: John Benjamins, 2017, pp. 109–110.

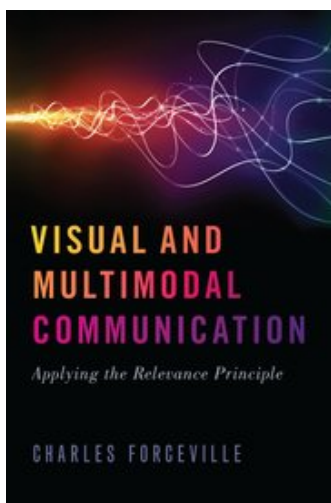
The two objects operate as metonymic sources which are merged in the form of a coordinate structure of hybridization featured by “and”. As for the perspectivization, it can be inferred that the DOME STANDS FOR THE PLACE OF THE EVENT and THE ALARM CLOCK STANDS FOR THE START OF THE EVENT; thus, the sources provide two different aspects, the place and time, of the political affair. The fusion of THE DOME AND THE ALARM CLOCK STAND FOR THE START OF THE PARLIAMENTARY SESSION.

The conference presentation will discuss nine metonymic hybrids by highlighting the relationship of the fused entities, their perspectivization, and also the complexity of the metonymic hybrids which sometimes intend to cooperate with other conceptual processes such as metaphoric scenarios, or metaphoric hybrids.

[SEE THE VIDEO](#)

*Charles Forceville*  
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**The Relevance Principle  
as the Basis for All Communication**  
*Notes on Visual and Multimodal Communication:  
Applying the Relevance Principle (Oxford UP, 2020)*



Many disciplines have contributed invaluable insights into visual and multimodal communication, including Semiotics, Systemic Functional Linguistics, Conceptual Metaphor Theory, Blending Theory, and Rhetoric and Argumentation. None of these, however, provides an inclusive theory.

In my view the contours of an inclusive theory of visual and multimodal communication – indeed of all communication – are present in Sperber and Wilson’s pioneering work on relevance theory/RT.<sup>1</sup> Sperber and Wilson take Grice’s “cooper-

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<sup>1</sup> Dan Sperber and Deirdre Wilson, *Relevance: Communication and Cognition* (1986), Oxford: Blackwell, 1995; Deirdre Wilson and Dan Sperber (eds.), *Meaning and Relevance*, Cambridge: Cambridge University Press, 2012; see also Billy Clark, *Relevance Theory*, Cambridge: Cambridge University Press, 2013.

ative principles”<sup>2</sup> – the “maxims” of quality, quantity, relevance, and manner – as a starting point, but state that actually only the relevance principle is needed, the other three being subservient to it. The key assumption in RT is that each act of communication comes with the presumption (not: guarantee!) of optimal relevance to its envisaged audience. Relevance is a trade-off between effect (benefit) and effort (cost). The more a message holds information for the addressee that help him (the addressee in RT is conventionally male) in the pursuit of good things and the avoidance of bad things, the more relevant the message is. But the relevance of a message decreases proportionally with the mental effort the addressee has to invest to derive it. “It’s raining” is usually more relevant than “When I look out of the window I see many people with umbrella’s trying to keep dry from the numerous drops that fall from the sky.”

A competent communicator (in RT: conventionally female) is aware that relevance is always relevance to an individual, and therefore attempts to finetune her message to optimally mesh with what (she assumes) the addressee knows, believes, and wants.

RT distinguishes between explicit, strongly implicated, and weakly implicated information. Apart from that a message may contain information that an addressee picked up, but that the sender did not *intend* to convey. Whereas I consider such “symptomatic” meaning not to be part of communication, discussing it is important, as it helps explain misunderstandings.

In the book I translate and, where necessary, adapt RT to the realm of visual and multimodal communication. The case studies all pertain to static images (and other visuals) that either occur on their own or are accompanied by brief written texts. Even though such communication is almost always mass communication, the notion of “relevance to an individual” remains crucial. The reason that, in most situations, mass-communicative messages are relatively well understood in the way they were intended is first of all that human beings share fundamental needs and desires – ultimately rooted in biological

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<sup>2</sup> Paul Grice, “Logic and Conversation”, in Peter Cole and Jerry L. Morgan (eds.), *Syntax and Semantics 3: Speech Acts*, New York: Academic Press, 1975, pp. 41–58.

instincts – and that this is mutually clear to communicators and addressees. Communication is always, in the last resort, governed by these instincts. Secondly, acts of visual and multimodal communication belong to a specific genre. Recognizing the genre enables addressees to recruit the pertinent contextual and/or cultural background information required to interpret a message – and this is precisely what the communicator aims for.

The first half of the book addresses theoretical issues, while the second half consists of case studies. These case studies belong to the following genres: pictograms, advertisements, cartoons, and comics. Chapter 10 shows how RT can accommodate misleading & deceitful visual communication. The final chapter summarizes the findings and makes suggestions for how RT can be further expanded to account for other genres, modes, and media.



# IMAGE THEORY



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**The Power of Images**  
– **Beyond the Logic of Action**  
**Arguments for the Intrinsic Power of Images**

**A) Power of Images: Action or Mediality?**

Which theory and concepts do we need to understand the power of images?

The state of research and the majority opinion in the philosophy of images is a logic of *action*: “we” act with images and images are just instruments and objects of actions. The implication is that any “power” of images is just and only the power of “users” (makers, perceivers, distributors etc.): i.e. the power of persons or human subjects. – This would then be the meaning of the question “how images behave”<sup>1</sup>.

In the tradition of speech-acts, significant positions who hold this view are Klaus Sachs-Hombach and Oliver Robert Scholz.

In the tradition of *old* phenomenology (i.e. Husserl), Lambert Wiesing’s is a prominent position in the field of philosophy.

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<sup>1</sup> The turn of phrase “digital images behave very differently from photographs” can be found already in W. J. Mitchell, *The Reconfigured Eye: Visual Truth in the Post-Photographic Era*, Cambridge, MA: The MIT Press, 1992, p. 173.

In the tradition of cognitive semantics and conceptual metaphors or images the case seems to be similar – if I am not mistaken.

This model of persons or subjects, *acting* always and *sometimes acting with images*, is at first glance self-evident and fits the usual patterns of cognition and understanding. “We”, human agents, are acting and behave badly or well, with or without images.

*But – “How do images behave?”* is a question going *against* and *far beyond* this pattern of thought. The decisive research question is not only, “Do we have power over our imagery?” (of course we don’t...), but “*What power do our words have over our images, what power have images over words?*“ (Phrase taken from the VLC9 call for papers.)

But which model makes us speak and ask in that way?

Which background theory lets us understand images as “behaving somehow”?

One answer has already been given by a long-term research project on the intersections of word and image and their powers:

Philipp Stoellger/Martina Kumlehn (eds.), [Wortmacht – Machtwort: Deutungsmachtkonflikte in und um Religion](#), Würzburg: Königshausen & Neumann, 2017, 450 p. (Series: *Interpretation Interdisziplinär*, vol. 16.)

Philipp Stoellger/Martina Kumlehn (eds.), [Bildmacht – Machtbild: Deutungsmacht des Bildes – Wie Bilder glauben machen](#), Würzburg: Königshausen & Neumann, 2018, 488 p. (Series: *Interpretation Interdisziplinär*, vol. 17.)

The background is a graduate-school research on power, namely the “soft power” in and of communication, visual and verbal communication:

Philipp Stoellger (ed.), [Deutungsmacht: Religion und belief systems in Deutungsmachtkonflikten](#), Tübingen: Mohr Siebeck, 2014, 624 p.



Here the relevant thesis is: to understand the power of images as Deutungsmacht: as the power of showing, and thereby letting us and making us see, perceive, feel and act in the line of the image. It's a modal (making possible) and medial power as *potential*.

How do timages do so?

By their medial power: they show something as something and let us see, make us see in their way. If they are powerful, we share their showing, i.e. they frame our perception. That is what powerful media do: they frame our perceptions (recall Fritz Heider, Niklas Luhmann and others).

## B) Three Modes of Power

“What power have images?” was the question.

Let me exemplify three modes of power in four examples:

### 1. Election campaigns

An election campaign is made with and by images (to produce “an image” of the candidate). It is a mode of “image politics”: a use of images by politics to make us see the one and only candidate as the

best of all possible. Behind the campaign stands political (democratic *potestas*) and financial power (non-democratic *potestas*).

These *images behave well* when they function as submissive staff or servants of “the king”.

They are objects which are used to achieve an aim. And the better they function, the better they are.

The pattern is quite simple: with a strong power “from above” (political, economical) the images are used (produced, distributed) as means to an end. Such images are “weak media”, mere instruments to produce and distribute a way to see (the candidate as the best) and to make the addressees behave (elect) in the wished way.

To achieve this is of course not as simple as the pattern, but means hard work with a lot professional experience, money, and will to power.

## 2. Art Market

Someone is making images, however they may look like. And he wants to sell them to earn a living – and probably with the wish of becoming a famous artist. Therefore, he gets involved in the art market. His images become a product in a special economic field: given to a gallery, exhibited for sale, together with rituals of “value-making”: prominent places, prominent speakers and writers, prominent neighbours in the exhibitions etc.

The power of the image is then produced by a system called “art-market”. The empowerment derives from decisions of the involved “prominent” actors. But – the success at last is made by the customers: to buy or not to buy is the final question. If the images are bought, they get recognition. And the higher the price, the higher is the recognition.

These images behave well when they function as valuable stuff for sellers and customers. They are objects which are used to achieve the aim of economy. And the better they function, the better they are.

The pattern is again quite simple: the power of the image derives at last *from below*, from the *recognition*, the customers. Their decision produces the value and power of the image. In some degree

it is a democratic model of empowerment: what is bought, is empowered. The decision is made by the customers. Remember Hannah Arendts model of power by recognition, or Max Weber's concept of charisma made by the ascription of the admirers. Not the image by itself is powerful, but the surrounding decisions make it so. And power is recognition resulting in economic value.

But, of course, the "aesthetic quality" of the image is at stake as well. To judge about this "MacGuffin" (Hitchcock), this "je ne sais quoi", is another question with another pattern: that the image "in itself" has an intrinsic quality which makes it powerful – for centuries. Wherefrom this quality comes is a point of dispute. We like to believe that it is the great artist (like Gerhard Richter), or more sceptically that it is just the market and the art-market, or that it is "only" the contingent recognition of customers and admirers.

To see the intrinsic power of the image as a consequence of human agents and systemic operations means: to see the image and its power as a consequence of personal and systemic power.

That's possible of course. But – whether it is the image in itself or the agents and systems (or with ANT: actors and networks), in the consequence the image *is* powerful – loaded with power, which "it has forever" or at least for some years or a minute of fame.

### 3. Caricatures

To avoid the conflicts about "intrinsic aesthetic value" (in which I myself do like to believe...), I refer to caricatures resp. political cartoons. Imagine a cartoon of Helmut Kohl, his head as a great meaty pear – which became widespread in Germany and even a common name for him: simply "pear".

What has happened here?

One could say that the *inventor* and creator of this image was ingenious and made a powerful image with his aesthetic power.

One could say that the *media* of distribution, namely *Der Spiegel*, is a powerful mass-medium, which empowered the image.



One could say that the *public sphere*, the addressees, empowered the image by their use and reuse of it, by their recognition.

And one could say that the “*subject*” of the image, Kohl, made the image powerful by his prominence and political power.

All of that is true of course.

But – all four answers would again reduce the power to agents and systems, actors and networks: extrinsic powers as empowerment of the image. The image remains an object and instrument of communication, and its power is just a consequence of these conditions “from above” or “from below”.

Such images behave well when they function as submissive instruments of political critique. Then again, they are objects which are used to achieve an aim. And the better they function, the better they are.

Or – could it be that these images behave well when they *don't* behave *well*, are *in*submissive, insubordinate and rebellious? They are “submitting” the king (i.e. subjugating), but are not submissive to him.

Could it be that the caricature has got its recognition by its *conciseness*, its brilliant and perfect “showing Kohl as a pear” and showing “the pear as Kohl”? With Ernst Cassirer one may call that “*symbolische Prägnanz*”: a synthesis in and by perception, a “pregnant” form of perception. Once the image is seen, immediately and

without my “acting”, Kohl is seen as pear – and forever will be seen by this iconic metaphor (for everyone whoever has seen the cartoon). And even the usual and innocent pears on the tree or in the supermarket are influenced by this mode of perception. Once we’ve seen Kohl as a pear, we cannot avoid to see a pear as Kohl – a little at least. The power of the images seems to “bewitch” our perception. The image operates like a perception-altering drug.

#### 4. Caricature by Accident

The *self*-dynamics of an image and its power to change the way of perception can be exemplified by images which operate against the original intention, i.e. unintentional caricatures.

Remember – or imagine – the Reformation jubilee 2017, celebrating Luther and the global protestantisms. The jubilee was promoted by images and a lot of “Luther-merchandizing” with promotional articles.

Luther – with his critique of the images and his generous tolerance – became “an image”: a saint, an effigy (effigies), a puppet, at last a *squeaky duck*:



One may see here, in the duck, a revenge of the image against its despisers.

Luther as image – became imprisoned in what he despised.

And one can see an unintentional effect as well. The image has the power of taking revenge, imprison and caricature its subject – by accident.

And one may enforce this power by a little manipulation: Luther's image becomes a bit infernal: Luther in the hell of his image...

### **C) Revision and Prospects**

There are at least *two ways* of understanding the self-dynamics of images, i.e. their intrinsic power:

One may say their power comes from agents, systems, structures and “networks”, but once the image is “loaded” with power by the extrinsic factors, it *has* this power. That's an “irenic” model, fitting the usual patterns of thought (mentioned above). But – once the image is loaded, it has an eternal “afterlife” (Nachleben, to recall A. Warburg). It is then a “high potential” framing the perception of the later generations.

The stronger model is to presuppose that media-like images are real factors in the field of communication and interaction. It is not just “loaded” by other powers but is powerful itself. For example: it is not only used to point at and to show something, but it is showing, showing itself, hiding a lot, and has a performance “by its own”: it lets us, and makes us, see in a way.

Exactly this stronger view is held and defended by prominent theories, like Aby Warburg, Horst Bredekamp, John Michael Krois, Gottfried Boehm, Hans Belting or William John Thomas Mitchell. But the “three B's” and the others are blamed – by the traditionalists – to believe in magic and witchcraft: When they speak of an “image-act” (Bredekamp), or of the “moving image” (Boehm), when they ask “What do images want?” (Mitchell) – they would be saying mere nonsense. Speaking about images as agents with a “will” and “behaviour” is blamed to be a primitive anthropomorphism.

The conflict in image-theory is of course a conflict in politics of science, of persons, of institutions and traditions. But it is in its core a *power-conflict*: is power a human property of agents – or are there other forms, figures and factors with power and efficiency? Is the human actor the “sovereign” in the visual field, governing images and using them? Or is the image an “autonomous” actor and factor as well?

One may object that this is not a power-conflict, but a conflict in the *concept* of power. But then the traditionalists forget a decisive concept: not just personal power (of agents as *potestas*; or of agents by recognition: *auctoritas* and charisma) but of factors, things and media: *potentia* as power and making possible (and impossible).

If images can unfold such a medial power – to let us and make us see as they show – is the consequence then justified to say: all images are powerful in such a way?

Evidently not. That’s why one has to draw a distinction: of weak and strong images (not as an aesthetic and normative, but as a descriptive difference).

But whether an image is strong or weak in that meaning, is defined not by the image alone. The factors of image-power are hybrid and multidimensional: Agents and sociality, history and situation, other media and structures. All the named factors come back – but *not to deny and replace the self-dynamics of images, but as an embedding of the power of an image.*

The image’s power over perception, cognition, emotion and communication *cannot* be understood sufficiently by the logic of human action or the logic of anonymous structures. It is another logic of power: the *logic of mediality* with the self-dynamics of media.

On the one hand this sounds trivial: of course, media “have” their own dynamics. Every computer-user knows that. But to conceptualize this experience implies:

1. A *concept of mediality* not completely reducible to agents and structures, and
2. a *concept of power*, not just of powerful acting subjects from above or from below.

*Dynamics* is the keyword: in Greek it's "*dynamis*", in Latin it's "*potentia*". And that's not merely *possibility*, but a modal power – as we know from the discussions on omnipotentia or impotentia (Giorgio Agamben).

Images' power is their potential impact.

They can have an impact on our behaviour, i.e. our way of life and mode of perception. And that's not just "our" power of recognition, but in this game the image with its own dynamic is a factor: its power.

The VLC9 conference-question "How images behave?" then reveals a deeper meaning: They can behave in a way that they *make us behave*.

## Postscriptum

"Ein Bild hielt uns gefangen" (an image held us captive), Wittgenstein once wrote.<sup>2</sup>

Wittgenstein – like the above mentioned prominent image-theorists (Boehm etc.) – seems to believe in witchcraft and magic: in the power of an image (here a verbal image) to imprison us.

The conference-question "How images behave?" then gets a dark side of meaning:

If images behave, we need an image-ethics (and politics).

And if they misbehave sometimes, their power can become painful: a question of violence. How images can violate – would be a further prospect. But don't forget the bright side: May images be as powerful as to liberate us?

Some biblical images like the Exodus and the parables of the kingdom seem to be so powerful – not by their producers, not just by their readers and their recognition, but the stories and parables can move and affect, can promise and present what they are speaking of. Some images are as powerful as to liberate.

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<sup>2</sup> "Ein *Bild* hielt uns gefangen. Und heraus konnten wir nicht, denn es lag in unserer Sprache, und sie schien es uns nur unerbittlich zu wiederholen." (*Philosophische Untersuchungen*, § 115, cf. *Eine Philosophische Betrachtung*, § 60.)

[SEE THE VIDEO](#)

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## **Image Act Skepticism: Philosophical Challenges to Art Historians**



As my contribution to the Budapest Visual Learning Conference, I want to address the question of how an image acts, or is performative. This has been very important for the past fifteen years or so, as theorists from anthropology to visual studies have tried to articulate the

way in which an image can motivate behaviour. The question is closely related to others of the images power, agency and animism.

Now, I am a friend of the power of images. My training and beliefs uphold the phenomenal force of images. As a follower of Rudolf Arnheim, I believe images are nodes of power that send out their vectors of energy into the surrounding world. Yet I am an image act skeptic. And I am so because I don't think theorists have taken the best of speech act seriously to heart. Let me explain what I mean by this.

First, what do we mean by an image or picture act? The term is used in a dozen ways but I will use one from Horst Bredekamp's book – *Image Acts* – because it is representative of his theory.<sup>1</sup> In his book, he talks a lot about works of art with “first person” inscriptions. The Anonymous *Christ on the Cross* in the Bode Museum in Berlin, from the early 12th century, includes an inscription on the back. It reads: “WOLFRA / MUS P[RESBYT]ER IVS[S]IT ME/ FACERE [Wolfram the priest ordered that I be made].”<sup>2</sup> For Bredekamp, the fact that the crucifix speaks for itself is significant because the reference does not go back to the artist (normally, analogized to the utterer in a speech act). Rather, the work is the “utterer” and the work therefore “functioned in the manner of an image act”.<sup>3</sup> It has already been pointed out that the way this argument is presented is rather loose and seems to treat image acts metaphorically.<sup>4</sup>

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<sup>1</sup> Horst Bredekamp, *Image Acts: A Systematic Approach to Visual Agency*, translated by Elizabeth Clegg (Berlin and New York: Walter de Gruyter, 2018). Similar in approach is Klaus Sachs-Hombach, “Acting with Pictures”, *Punctum 2* (2016), pp. 7–17. One early example is Liza Bakewell, “Image Acts”, *American Anthropologist* 100 (1998), pp. 12–22. See further C. J. Reynolds, “Image Act Theory”, *Seventh International Conference of Computer Ethics* (July 12–14, 2007). Online source: [http://www.k2.t.u-tokyo.ac.jp/members/carson/papers/reynolds\\_cepe2007.pdf](http://www.k2.t.u-tokyo.ac.jp/members/carson/papers/reynolds_cepe2007.pdf).

<sup>2</sup> Bredekamp, *Image Acts*, p. 49.

<sup>3</sup> *Ibid.*, p. 45.

<sup>4</sup> Matthew Rampley, “Theories of Agency in Art” [review of Horst Bredekamp, *Image Acts: A Systematic Approach to Visual Agency*, translated by Elizabeth Clegg (Berlin and New York: Walter de Gruyter, 2018)], *Journal of Art Historio-*

Some other authors follow the structure of speech acts, as sketched out by John Searle.<sup>5</sup> But because this tradition has certain weaknesses, it is safe to say that the theory of image acts is underdeveloped. Specifically, the force of an image has to be specified better, and in doing so, it is harder to affirm that images carry force. In general, I find that visual theory has not dealt with general theoretical problems of authority in social life and further harmed its theoretical development by overemphasizing the work of art as powerful particular, or agent, at the expense of social structure.

## Speech Acts

A speech act is one that accomplishes some social action, and changes the world. Briefly, in Searle's account, there are "constitutive" rules that bring things into being.<sup>6</sup> Saying "I do" at a wedding ceremony is one example. We may immediately wonder what is performed by the first-person inscription in the Crucifixion? Asking, warning, promising, forgiving or more institutionally charged acts such as baptism, marriage, legal indictment are the usual fare of speech acts. Further, they have what Austin called "felicity" conditions. The fulfillment of a promise is its felicity condition. At this point at least, there is nothing that the image actually accomplishes in its creation or display. There is nothing quasi-legal or institutional.

If we are to follow Searle, we must also attend to his critics, who note a lack of an account of social structure. Speech acts are a relatively individualistic affair for Searle. Speech acts are binding based on individual mental dispositions. Is an individual mental disposition enough to explain why we might go to jail if we shout

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graphy 20 (2019), <https://arthistoriography.files.wordpress.com/2019/04/rampley-rev.pdf>.

<sup>5</sup> John Searle, *Speech Acts: An Essay in the Philosophy of Language* (Cambridge: Cambridge University Press, 1970); cf. J. L. Austin, *How to Do Things with Words* (Oxford: Oxford University Press, 1962).

<sup>6</sup> For a discussion, see Barry Smith, "John Searle: From Speech Acts to Social Reality", in B. Smith (ed.), *John Searle* (Cambridge: Cambridge University Press, 2003), pp. 1–33, see esp. p. 7.

“Fire!” in a movie theater? I will not go too deep into the ontology, but institutional Y terms for Searle are also always individual, X, terms. Y terms cannot stand alone.

While the institutions of free assembly in a society explain why it is wrong to shout “Fire”, it is not so clear what institutions cause us to attend to the Crucifixion. What is the social group or circle, what are the norms, that make us care about what Wolframus said? British sociological theorist Dave Elder-Vass notes that it isn’t about speech at all, but normatively monitored groups that give force to utterances. He says, “A manager could not dismiss an employee [with a speech act of firing] unless both were parts of an organisation of a certain kind, thus the causal power is a power of the organisation, exercised on its behalf by the manager, and not a power of the manager as an individual.”<sup>7</sup>

## Document Acts

We can see that when we behave as if an object is animate, we are really reflecting the authority of the groups with or against which we operate in our own “norm circle.”<sup>8</sup> But there is also a body of writing on document acts as well, which moves us closer to images.<sup>9</sup> Speech acts bring entities into existence but cannot necessarily maintain their existence. The speech act is an event or occurrent whereas documents are objects or continuants. Apart from bringing an institution into existence (if Searle’s account is enough), documents likewise can sustain the institution. A speech act can initiate a promise but a document might sustain it.

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<sup>7</sup> Dave Elder-Vass, *Causal Power of Social Structures*, p. 74.

<sup>8</sup> “Norm circle” is used in Versteeg, *Federico Barocci and the Oratorians: Corporate Patronage and Style in the Counter-Reformation* (Kirksville: Truman State University Press, 2015), to discuss the contrasting aims of the Jesuits and Oratorians.

<sup>9</sup> Barry Smith, “Document Acts”, in A. Konzelmann-Ziv and H. B. Schmid (eds.), *Institutions, Emotions, and Group Agents: Contributions to Social Ontology* (Dordrecht: Springer, 2014); cf. Barry Smith, “How to Do Things with Documents”, *Rivista di Estetica* 50 (2012), pp. 179–198.

Documents also perform acts. For example, a contract creates an obligation; a state of incorporation creates a corporation, a deed creates a privilege, a title deed creates a property right, a patent creates an exclusive right, and so on.<sup>10</sup> On one hand these might seem to be governmental or bureaucratic but remember there may be a government one has lost trust in – inflation in Weimar Germany for example. What is essential, as with speech acts, is the power to bind the speech or documentary act to its maintenance. Again, as these examples show, the result is squarely institutional.

Part of what motivates (the hope for) image acts by art historians is the desire to claim powers for what we study, works of art. We can see that with speech and document acts there is also something agential or magical about the speech part – the “promise” or the document: the contract. Suppose that we are afraid of a survey of our land, because a profitable business was located there and the bounds of our land might be changed. Once created, the survey document produced by a surveyor – a “mere” piece of paper – could attain magical properties. We might try to steal it; it might create nightmares for us; or depress us. But as with both speech and document acts, its power is really the institutional power that it has, related to ownership. It might seem to attain a level of “animacy” but we are really reacting to the force of the *institution*.

We have seen that to “change the world” via an act we need a normative social theory. Even with Searle’s individualistic and linguistic theory, there is a shared institution within which the act gains traction. The stronger theory that I referenced, that of Dave Elder-Vass, argues robustly for a socially causal account of social life in norm circles. The “visual agency” of the work of art goes exactly away from any meaningful social theory of the art field. Instead, we need to think of norms, whether governmental or merely social, that could be adequate to enforce or bind speech and documentary behaviours. Once we understand the power structure, we understand *why* an act might be relevant in the first place.

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<sup>10</sup> Smith, “Documents Acts”, p. 22.

Interestingly, the same art historians who push the power of the object are – at least metaphysically – no different from Margaret Thatcher’s dictum that “there is no such thing as society”.<sup>11</sup> Unless we believe that our cognitive acts sustain all that exists in the world (individualism) we need to theorize objects like promises and material relations that might underwrite our relationship to power.

## Conclusion

Let us return to Bredekamp’s *Crucifixion*. The first thing we can see is that – apart from the hopeful switch of ontology from work of art to speaking agent – it and other examples do not accomplish an act. If we compare its address to us to either the speech (promise) or document (contract) acts, this is plain. There is nothing that the image does that changes the world. The first-person inscription might “hail” us but that is as far as it goes.

So far, the most convincing example of an image act are *pittura infamanti* from the Italian communes of the thirteenth and fourteenth century.<sup>12</sup> Writers on such shaming images are sensitive to the ways in which they are a requisite to political and legal power, and functioned in a strict, institutionalized way. Yet in document act theory, for example, there is a space for evidence that coincides with document acts, like photos that might accompany a bill of sale. But these are not image acts. It has been pointed out that *pittura infamanti* do not require an (iconic) likeness and were somewhat subservient to the capitalized names of offenders. Before one can invoke an image

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<sup>11</sup> Here, it must be pointed out that this liberal individualism has important continuities to contemporary “flat” ontology, for example, Bruno Latour’s rejection of “society” in favour of relations.

<sup>12</sup> Gherardo Ortalli, *La pittura infamante nei secoli XIII–XVI* (Rome: Jouvence, 1979); and Samuel Y. Edgerton, *Pictures and Punishment: Art and Criminal Prosecution during the Florentine Renaissance* (Ithaca, NY: Cornell University Press, 1985) and now Carolin Behrmann (ed.), *Images of Shame: Infamy, Defamation and the Ethics of Oeconomia* (Berlin: De Gruyter, 2016) and in particular the chapters by Gherardo Ortalli, Matteo Ferrari and Giuliano Milani.

as causally powerful, one must exhaust speech and document acts first.

Even generic acts of image power (something like their “social psychology” instead of their sociology) have a normative background. The saint that the Catholic implores is underwritten by the edifice of Catholic faith and certified by the liturgical structure of the church. The Catholic sculpture that a month before was not especially repugnant suddenly becomes so with the political clampdown of the Spanish in the Netherlands, champions of the Catholic faith.

In reviewing speech and document acts, I showed how approaches based on Searle and others are weak and individualistic. They do not theorize non-extensive ontologies like “promisings”, or social relations like norm circles. As they presently stand, they are inadequate to explain how an image could induce behaviour. That which they leave to the “agency” of the object is magical, either undertheorized or metaphorical. The norm circle explanation given here *is* a theory of agency. But the main trouble remains the institutional power of the image act – it must move beyond the anecdotal or unique and will convince us by its ritual recurrence.



[SEE THE VIDEO](#)

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## **Theories of Visuality and the Social History of Postmodernism: Ruminations about a Research Project**

Petrarch once observed that in every discussion it is important to pay attention to what is *not* said as much as to what is said. The recommendation has significant importance if we want to examine the origins and motivations behind the rise of postmodernism in the final decades of the twentieth century. For many people, including myself, the core doctrines of postmodernism are remarkably counterintuitive. By this I mean, for instance, the view that reality is not really there, that it is constructed by social forces such as cultures or languages, that these forces exist somehow independently of, over and above biological humans and that they have the capacity to determine their mental states. Obviously, for many people these ideas must have been perfectly cogent and reasonable, otherwise the intellectual history of the past sixty years would have been very different.

For those of us who are baffled by the wide endorsement of postmodernist ideas and who find arguments in their favour unconvincing, it is natural to follow Petrarch's advice and seek to establish the *unstated* perspectives that could have motivated such strange views. At the same time, the *stated* views require analysis too. Once they are listed (the way I have briefly summarised them above) the relevance of the boundary between analytic and continental philos-

ophy, for instance, becomes marginal. A good number of analytic philosophers turn out to belong in the postmodernist camp – not only Goodman and Rorty, but also, for instance, Putnam and Burge. The association of postmodernism with the French cultural influence becomes hard to sustain. On the one hand, works of Derrida or Deleuze are anyhow incomprehensible even to experts, and incomprehensible views can hardly influence anyone. On the other, the defining perspectives of postmodernism (as summarised above) can be documented in English speaking intellectual life well before French postmodernist philosophers wrote their works. It is, at the same time, quite possible to find these same perspectives in German-speaking philosophies of history of the Weimar era. The transition of these ideas into the USA and the UK via the great exodus of German-speaking scholars in the 1930s is easy to trace.

The pool of *unstated* assumptions, the other side of Petrarch's recommendation, is wider and harder to follow. It was the academics that belong to the generation of 1968 that largely carried out the rise of postmodernism in the 1980s and the 1990s. Their social experience certainly constitutes an important element. Alan Bloom has described the widespread tendency to identify reason with authority during their formative years. It is hard not to think that this accounts at least for part of the opposition to rationality that is often manifested by promoters of postmodernism. Theological coincidences need to be noticed as well. The role of Culture, Language or Society that in postmodernist metaphysics construct reality and determine the mental states of individuals suspiciously resembles the role of God in the writings of Luther and the Calvinist tradition. Except for France, postmodernism has been mainly a cultural phenomenon of protestant countries. Religious views, it may be pointed out, are not only about God but about human relationship to God. People are likely to retain the anthropology of their religion even when they cease to be religious. Culture, Language, Discourses, Epistemes or Society that postmodernist metaphysics relies on are then mere substitutes for God that reflect a crypto-Protestant worldview.

The contribution of the 1950s theories of perception ("New Look" psychology) to the rise of the postmodernist worldview be-

longs, one could say, to both categories. The view that all perception is inseparable from the conceptualisation of the contents of perception – that all seeing is seeing as – played an immensely important role in the intellectual life during the 1960s. The view is firmly endorsed, for instance, in Gadamer's *Truth and Method*, Gombrich's *Art and Illusion*, Kuhn's *The Structure of Scientific Revolutions*, Norberg-Schulz's *Intentions in Architecture*, Danto's *Analytical Philosophy of History* and Goodman's *Languages of Art*. At the same time, it has unavoidable anti-realist and anti-foundationalist consequences that were typically endorsed but left unstated. By making the contents of perception dependent on their classification and the classificatory capacities of the subject (previous experiences, expectations and so on) the view necessarily makes the contents of visual experience independent of the actual perceived objects and their properties. Modern psychology of perception rejects the view and assumes that the functioning of the parts of the brain that form our visual experience is impenetrable for conceptual thinking. There exist efforts to establish whether *in some* circumstances such influences may occur, but the idea that this is *always* the case is long forgotten. All this is very important because if perception is detachable from the conceptual contents associated with it (and this is the standard view of modern psychology), then anti-foundationalism becomes impossible to sustain, while anti-realism can only be advocated as a variation of traditional skepticism.

For a historian interested in the cultural history of postmodernism it is necessary to take into account the assumptions about perception that were taken for granted by its protagonists. Without them, anti-realist and anti-foundationalist claims could not be sustained. More generally, it is hard to deny that the answer to the question of how postmodernism could have happened, and what kind of social forces fostered its rise, has potentially extremely wide implications for the understanding of the civilization we live in.



[SEE THE VIDEO](#)

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## Understanding Images Without Theory

In the last 50 years, numerous books and articles have been published on image theory but what is noticeably lacking is any emerging consensus or wider impact on fields outside philosophy. No theorist since Ernst Gombrich has had anything like his influence across philosophy, psychology and the visual arts. Books like *Understanding Pictures*,<sup>1</sup> *Picture, Image and Experience*,<sup>2</sup> *The Objective Eye*,<sup>3</sup> and *What Is a Picture?*<sup>4</sup> have been almost entirely ignored in art education and have had little or no impact on fields such as cultural studies, ethology, language evolution and psychology.

Scientific research is widely regarded as being indispensable for the development of a theory of the image and many theorists appeal to vision science and neuroscience in order to understand and explain images. But if it turns out that the issues of concern are conceptual in nature, then scientific research is unlikely to generate

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<sup>1</sup> Dominic McIver Lopes, *Understanding Pictures*, Oxford: Clarendon Press, 1996.

<sup>2</sup> Robert Hopkins, *Picture, Image, and Experience: A Philosophical Inquiry*, Cambridge: Cambridge University Press, 1998.

<sup>3</sup> John Hyman, *The Objective Eye: Color, Form, and Reality in the Theory of Art*, Chicago: The University of Chicago Press, 2006.

<sup>4</sup> Michael Newall, *What Is a Picture? Depiction, Realism, Abstraction*, London: Palgrave, 2010.

significant insight. Perhaps an entirely different approach is needed, one that brings us back to the “rough ground”<sup>5</sup> of the ways that we use non-verbal representations and most especially the things that we say about them.

Conceptual analysis has the potential to reveal several important distinctions commonly overlooked, neglected or oversimplified in the literature. Even such unassuming prepositions as “of” and “about” have a significant role to play in clarifying and revealing the extraordinary sophistication of our ordinary understanding of pictorial representation and indeed all forms of non-verbal representation.

Often we can use “of” or “about” interchangeably as when we say “I’ve been thinking *of* you” or “I’ve been thinking *about* you”. But when applied to images these prepositions are no longer equivalent. An image *about* you need not be *of* you. When we say that an image is *about* something, it is rightly assumed that we are referring to its meaning, whereas an image *of* something *need not be about* anything: for example, the images *of* rocks and aquatic plants used as backdrops in many fish tanks.

Nelson Goodman argued<sup>6</sup> that *all* representations are symbolic. Thus, the Jolly Roger flag symbolizes a skull and crossed bones according to one set of symbolic conventions and piracy according to another. However, the Jolly Roger design is not an image *of* piracy, it is an image *of* a skull and crossed bones. So simple grammar belies Goodman’s claim. What the design is *about* – its meaning – relies on its *association* with piracy, not because it is a picture *of* piracy. What the image is standardly taken to be *about* is indeed a symbolic relation but this is secondary to its pictured subject: what it is *of*.

Like Goodman, Vilém Flusser claimed<sup>7</sup> that photographs are symbols. He rightly acknowledged that “They provide space for interpretation” but he overlooked a crucial distinction between inter-

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<sup>5</sup> Ludwig Wittgenstein, *Philosophical Investigations*, transl. by G. E. M. Anscombe, Oxford: Basil Blackwell, 1953.

<sup>6</sup> Nelson Goodman, *Languages of Art*, 2nd ed., Indianapolis: Hackett, 1976.

<sup>7</sup> Vilém Flusser, *Towards a Philosophy of Photography*, transl. by Anthony Mathews, London: Reaktion, 2000.

pretations of what images are *of* and interpretations of what they are *about*. So, whilst it is true that photographs provide space for interpretation of what they are *about*, it is much less true that they provide space for interpretation for what they are *of*.

## Two Forms of Resemblance

Things can resemble one another either by way of genuine similarity or by way of one or more effects. A 3D effect is not a 3D property and a shading effect is not a shadow. Umberto Eco once remarked: “Now a simple phenomenological inspection of any representation, either a drawing or a photo, shows us that an image possesses none of the properties of the object represented.”<sup>8</sup> How is it possible then, that we can very occasionally mistake some images for the things they represent? Eco offers no explanation. More recently it has been argued that many pictures do in fact share the property of peripheral shape (viewed from a fixed point) with the objects they depict. Nonetheless, Eco isn’t entirely wrong. What he fails to do though, is to distinguish between resemblances that rely on shared properties and resemblances that rely on illusionistic effects. This leads him to deny resemblances altogether in favor of a proprietary theory of pictorial symbolization that has had little success within the field of image theory.

Even if a theory is correct in every detail, the job of dissemination and persuasion remains entirely before us. However, if it turns out that only clarity is needed to dissolve conceptual puzzles, then there is no need to strive for the acceptance and assimilation of a new theory into ordinary discourse.

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<sup>8</sup> Umberto Eco, “Critique of the Image” (1970), in *Thinking Photography*, ed. by Victor Burgin, London: Palgrave, 1982, pp. 32–38.



[SEE THE VIDEO](#)

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## **Design Objects as Images**

Design is an omni-present aesthetic visual phenomenon, culturally loaded and influential. Many design objects possess deep appearances, which present figurative and expressive compositions, such as the jewelry designer Bettina Speckner's gloomy brooches (Figure 1);



*Figure 1: Bettina Spencker, Slate Brooch, 2013.*

are saturated with ideology, such as Kleen Kanteen long-last environmentally-neutral stainless steel water bottles, which by using them “you’re taking a stand against disposable design”; direct social behaviours and hierarchies, like rectangle vs. round tables; refer to their

contemporary zeitgeist, like modernist factories; prompt insights like Michael Beitz's *Not Now, Dining Table* (Figure 2), and knotted sofa, that reflect cold social interactions through get-together furniture (Figure 3), or even mimetic, like the interior designer Matteo Bianchi's *Muffin Pouffe* (Figure 4). Still, design objects are overlooked by



*Figure 2: Michael Beitz, Dining Table, 2016.*



*Figure 3: Michael Beitz, The Complexity of Relationships, 2012.*

the vast aesthetic literature on images, which is re-flourishing nowadays in the course of the visual turn and the return to the visual sphere as an arena of analysis of human nature and culture.



Figure 4: Matteo Bianchi, *Muffin Pouffe*, 2011.

Maybe the following will reveal the source of this theoretical inattention. Design objects furnish our everyday surroundings, therefore are naturally considered to belong to reality itself rather than to its representations. Additionally, most of the sub-disciplines of design, such as industrial design, fashion, graphic or interior design and sometimes architecture, are essentially mass-produced. An encounter with a mass-produced object does not naturally invite an attribution of a preconceived meaning which the design piece aims to symbolize. Therefore we tend to classify it as a *mere object* rather than as representation – a term used by Arthur Danto to distinguish between reality and art. Considering these characteristics, Jane Forsey presents in her recent *Aesthetics of Design* a materialist stance by claiming that design is “mute”, which I take to mean non-representational, hence non-imagistic.

Moreover, even formalists, such as the author of this piece, acknowledge the fact that in conjunction with its aesthetically significant forms, the design piece is essentially functional. Its functionality renders it *close to us – closer than images*. Its beholder is more of a user than a viewer: lives in buildings, operates coffee machines, sits on benches in squares, wears clothes, eyeglasses or rings, drinks from cups, writes with pens and carries them in backpacks. These are close responsive and mutual relations between us and design objects, which indicate the difference between looking at mere things and looking at images. Use and responsive actions make our sight efficient and reduced up to missing the whole composition of the per-

cept, as Roger Fry proposes in his canonical *Vision and Design*. For Fry the formalist, the essence of design, just like art, is its aesthetic arrangement, formed by means of “the emotional elements of design” that invite a disinterested contemplation. Though one of the few modernist aestheticians to include design in aesthetics, Fry deemed its usefulness unessential property, and believed that a machine-made object could never be truly beautiful. But most of the theories of design characterize it as essentially functional and mass produced. So, we have main traits here that prove the design objects’ affordance challenging for image theories.

However, imagery is not foreign to design, and *functionality is actually integral to design’s imagery*. The above-mentioned examples of full-of-content objects are not peripheral at all – even according to restrictive definitions of “proper images”, as labeled by Mitchell in his comprehensive project on images, *Iconology*. Mitchell refers to Furbank’s definition in *Reflections on the Word ‘Image’*, who asserts that we should forgo the idea of verbal image and confine ourselves to “the natural sense of the word ‘image’, as meaning a likeness, a picture, or a simulacrum”. I would refine it to the following: an image is a visual representation which is based on likeness to the represented and refers to it.

Mitchell himself, like the linguistic aestheticians Goodman and Danto, tries to dissolve the distinction between proper and improper images, and accordingly between visual and verbal images, asserting that images are a kind of language: “instead of providing a transparent window on the world, images are now regarded as the sort of sign that presents a deceptive appearance of naturalness and transparency concealing an opaque, distorting, arbitrary mechanism of representation”. In opposition to this distrustful attitude to the visual and attempt to “upgrade” images to language, my stance is visualist, and I claim that all imagery is based on visuality. But I do agree that the structures of images and their relation to their represented referents are versified, non-transparent images included. Gombrich and Goodman proved that similarity is sometimes produced rather than revealed, and there are various kinds of similarities. Moreover, ref-

erents are sometimes produced by visual pieces rather than pre-conceived.

Mitchell calls images “intermediate agencies” that stand between us and the perceived objects. He follows Gombrich’s assertion that “images apparently occupy a curious position somewhere between the statements of language, which are intended to convey a meaning, and the things of nature, to which we only can give a meaning”. Design objects which are neither language nor nature, but depictive in character, stand exactly there. The human being lives in layers of ontology, accompanied by thick mediating layers of images. A creative layer of artifacts such as design objects, could not be totally devoid of imagery.

Do design objects meet the above conditions of images? Yes, many of them are visual-iconic symbols of their referents, hence images. When the imagistic property is internal to the design object, it is structurally linked to its functional structure. Kleen Kanteen’s steel and lively colours are integral to their depiction of sustainability; Bianchi’s *Muffin Pouffe* sittability is part its metaphoric image of muffin; a rectangular table’s function is integral to the shape and sign of hierarchy of positions, while a round table allows equal sitting positions, visually showing a composition of equality. Modernist factories’ impressive solidity expresses, actually depicts, the contemporary admiration of heavy technology. Looking back at modernist architecture Stanford Anderson claims in *Fiction of Function* that this solidity is imagistic:

certain features of buildings may reveal internal functions sufficiently directly to be seen as more than metaphors for those functions: the length and repetitiveness of a factory elevation refers to similar characteristics of the processes it houses. Structural details may reveal their own function, but may also serve metaphorically: the great pin-joints of the arches of Peter Behrens’s Turbine Factory in Berlin, beautifully machined and displayed on pedestals just above street level, insist on their own objectness while suggesting themselves as the engines of

their own structural system and cognate to those engines of another mechanical system fabricated within.

The subjugation of functionality to mimetic imagery is well embodied by Beitz. Knotting the sofa or conference table, Beitz distorts the object's familiar functions, thereby turning what is usually a place of social contact to a space of segregation. His design objects are therefore mimetic and productive ironic, funny and witty images of the complexity of human relations.

Thus, design objects depict and produce referents and meanings, and are therefore representational visual artifacts. Possessing semantic, referential, or expressive properties, they lend themselves to iconography: "it is virtually impossible to deprive building elements of metaphoric qualities associated with various functions", Anderson beautifully proposes, "portals and doors loaded with the significance of arrival or departure; windows as the eyes of the building or as the frame through which a controlled view of the world is afforded".

[SEE THE VIDEO](#)

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## **The Image of Type: The Wonders of Multi-script Typography**

We are in the age in which international communication is fostered due to global technology. These two matters are the driving force behind multilingualism entering the world of graphic design and typography. Inclusion of multiple languages in the realm of visual communication invites merging of the two or more writing systems i.e. scripts. This phenomenon is enriching our visual vocabulary and at the same time challenging the practice of visual communication. Observing the dynamics between multi-script typography in the trans-cultural visual dialogue, I aim to single out the challenges we need to overcome to avoid cultural pastiche and establish meaningful relationships between cultures.

Writing systems are “systems of codes”. This “solid form” of language<sup>1</sup> is a reflection of the cultural, social, and political context it resides in. If we look at Western world countries, we can observe that most use Latin script as a language codification system. Its codification was governed by technological transformations and the image of the Latin script evolved over time (e.g., humanistic, ornamental, industrial, modern). The new visual era prompted global acceptance of

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<sup>1</sup> Robert Bringhurst, *The Solid Form of Language: An Essay on Writing and Meaning*, Kentville, Nova Scotia: Gaspereau Press, 2004.

the Latin typographic image with the emphasis on “modernity” and “simplicity”. Many non-Western countries started using the Latin script for communication alongside their own writing system. Hence, bi-lingual and multilingual scripts emerged as a way to sustain multiple language integrations.

For the contemporary practice and theory of graphic design, the use of multilingual scripts poses a challenge that is two-fold. Firstly, discrepancies are perceived at the level of constructing letterforms. Namely, writing systems that have developed in different environments require different approach to designing. According to Březina,<sup>2</sup> new technologies bring advancements and constraints at the same time. In his view, adaptation of letterforms to the technologies may be a straightforward act for some scripts and a challenging one for others. Seeing that technology was not built with a particular script in mind and that particular scripts are more complex, within a multilingual writing system connotations of form are not always transferable. For example, if “modernity” is a signifier embodied through a particular stylisation of the Latin script, stylising Arabic script in the same manner might not relate to the same signified. Such superficial treatment of “translating one language to another” means that the whole endeavour would remain truncated and insignificant,<sup>3</sup> adding “visual noise” to the communication channels.

Secondly, challenges of merging multilingual scripts are noticeable at the level of applying typefaces in graphic design narratives. As a vibrant semiotic playground, graphic design thrives on meaning making through diversity of visual percepts in a form of photography, illustration, but most of all typography. Because visual percepts are links to reality,<sup>4</sup> and our reality is changing, we are wit-

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<sup>2</sup> David Březina, “Challenges in Multilingual Type design”, *www.rosettatype.com*, 2015, <https://www.rosettatype.com/blog/2015/02/16/Considerations-in-multilingual-type-design>.

<sup>3</sup> Rudolf Arnheim, *Art and Visual Perception: The Psychology of the Creative Eye*, 2nd ed., Berkeley: University of California Press, 1974.

<sup>4</sup> Kristóf Nyíri, “[Towards a Theory of Common-Sense Realism](#)”, paper presented at 6th Visual Learning Conference, 2015.

nessing typographic transformations as they seek to reflect the trans-cultural dialogue. To sustain an effective communication in this context, traditional and predominantly Western resources and concepts are not sufficient. For example, we can observe the case of a collaborative project for the visual identity of the [Dhaka Art Summit 2020](#). The cultural nuancing within visual language is present through integration of local visual images at the core of the graphic design process ([Universal Thirst](#); [Fraser Muggeridge studio](#)). In such visual space, coexistence of scripts reflects cultural cohabitation. Another example that provides a satisfying visual solution of cultural cohabitation in a visual space is Igor Gurovich's poster for Tbilisi Open Film Forum (source: [Bi-scriptual](#)). Integration of scripts is depicted not through mere duplication of the text in different visual format but through an engaging interplay of Cyrillic, Georgian, and Latin scripts.

As we find ourselves in an era of transformations and change, we are confronted with new ways of representation.<sup>5</sup> The questions arise: How do we approach methods of teaching graphic design in this new era? How do we determine analytical and practical tools for understanding a range of phenomena underlying the complexity and vibrancy of multi-script typography? Following the thread of Aczél's reconceptualisation of the (new) media, the path forward is the one of "continuous reconstructions of core ideas" where students are "inhabiting the constantly changing culture" as "authentic thinkers". To sustain wonders of this vibrant typographic space, "our core vocabulary" within graphic design theory and practice needs to move further from singularism and foster richness of visual thinking by embracing "complexity, rawness, and reality of this world"<sup>6</sup>.

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<sup>5</sup> Petra Aczél, "[Reconceptualizing \(New\) Media Literacy](#)", Institute of Behavioural Science and Communication Theory, Corvinus University of Budapest.

<sup>6</sup> Ishan Khosla in Somnath Bhatt, "Collaboration, Cultural Nuance + Localism – A Conversation on Reshaping the Design Monolith", 2020, <https://eyeondesign.aiga.org/collaboration-cultural-nuance-localism-a-conversation-on-reshaping-the-design-monolith/>.



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## **Image, Perception, Behaviour**

How do images behave? Or rather, how do we relate to images, how do we use them, and how do they affect us? Images are an indispensable element of life, both in the physical and mental sense, and there is a reciprocal relation between images and human cognitive capacity. In this paper I will rely on the Bergsonian conception of the image, Merleau-Ponty's phenomenological account of human consciousness, and more recent suggestions from neuroarchaeology. All three above-mentioned theories attempt to provide a framework within which the mind-body relation can be reconsidered.

In my argumentation I will suggest that images behave in accordance with our capacity of cooperating with them. Technically, the capability of recognising images as images, being able to recognise similarities and certain regularities of similarities, are in correlation with image-making skills. The history of image-making, starting with Palaeolithic images and evolving through perspective painting, various painting styles, and the production of influencing (commercial) images, is inseparably related to the evolution of different cognitive and bodily skills and the cultural milieu.

According to recent usage of the term "image", we can think of depiction, reflection, representation of something, or the general

impression raised by a person, company, or city. We use images to help recollection and problem-solving, support expression, as rhetorical devices, and we exploit their affective power to influence decision making – to name a few roles they can play in our everyday life. Even this short list demonstrates the fluctuation of the meaning of the word between the concrete, material and the mental, incorporeal.

That is, in ordinary language we apply “image” for both physical and mental phenomena. Henri Bergson, the renowned French philosopher, exploited this ambiguity when he tried to bridge the traditional gap between mind and body. According to his suggestion “[t]he mistake of ordinary dualism is that it starts from the spatial point of view: it puts, on the one hand, matter with its modifications, in space; on the other hand, it places unextended sensations in consciousness. Hence the impossibility of understanding how the spirit acts upon the body or the body upon the spirit.”<sup>1</sup> The puzzle of how the mind can have influence on matter and vice versa can be solved if mental phenomena are not squeezed into spatial terms, but rather kept in the temporal dimension. When we think in spatial terms we unknowingly use static, divisible and separable concepts, therefore consciousness or spirit, as it really is, is unattainable.

With the help of *image*, Bergson attempted to create a framework within which a certain continuity can be built between the physical and mental. As he wrote, “by ‘image’ we mean ... an existence placed half-way between the ‘thing’ and the ‘representation’.”<sup>2</sup> In Bergson’s view, matter is “the aggregate of images, and *perception of matter* these same images referred to the eventual action of one particular image, my body”. That is to say, as a margin note summarized, “[i]mages belong to two systems: to science and to consciousness.”<sup>3</sup> They belong to science, as the material world is the subject of the sciences, and to consciousness because perception can be conscious or unconscious.

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<sup>1</sup> Henri Bergson, *Matter and Memory*, 1911, p. 294.

<sup>2</sup> Bergson, *op. cit.*, p. XII.

<sup>3</sup> *Ibid.*, pp. 8 and 12.

Image, as perception, can illuminate the origin of consciousness as it differs from the unconscious in degree, but cannot help regarding mind's capacity to preserve images, i.e., memory. Nevertheless, image is considered by Bergson as a means by which we can restore intuition. Bergson differentiates between intellect and intuition. The former is attributed to science, while the latter to metaphysics. Science and metaphysics "will differ in object and method, but will commune in experience". Intuition, as Bergson understood it, is a "direct vision of the mind by the mind".<sup>4</sup>

As we can see, *image*, according to Bergson is related to the material, spatial world. On the other hand, image "may give us the direct vision" while the abstract term "leaves us in metaphor", i.e., when we are to restore intuition, image may provide considerable aid because it is not burdened by rigid spatialized terms provided by the intellect.

Like Bergson, Merleau-Ponty also attempted to eliminate the mind-body gap. In doing so he suggested the reconsideration of some key concepts in philosophy, such as perception and consciousness, and created a framework within which the human cognitive system finds its place in close interplay with its ambient world. Accordingly, he suggests, thanks to our body via perception, we are in direct and active interplay with the world. Our experience is embodied because "far from my body's being for me no more than a fragment of space, there would be no space at all for me if I had no body"; and even the meanings of words derive "from our experience as embodied subjects".<sup>5</sup>

Merleau-Ponty considers art, particularly painting, a privileged activity that makes structures invisible to the naked eye visible. Artists, thanks to their special expressive capacity, render us capable of enjoying works of art. "The world of perception consists not just of all natural objects but also of ...the 'world of culture'. Far from having narrowed our horizons by immersing ourselves in the world of perception, far from being limited to water and stone, we have re-

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<sup>4</sup> Bergson, *The Creative Mind*, 1946, pp. 50 and 47.

<sup>5</sup> M. Merleau-Ponty, *Phenomenology of Perception* [1945], 2005, pp. 89 and 182.

discovered a way of looking at works of art, language and culture, which respects their autonomy and their original richness.”<sup>6</sup>

Merleau-Ponty’s above-quoted idea is extensible to the past and neuroarchaeology; in particular, material engagement theory accomplishes this extension to the Palaeolithic. This more recent research is based on archaeological studies and enactivist theories of mind. It suggests that if we abandon focusing on the presupposed representational machinery, image-making and seeing as regards cognitive evolution, meant both phylo- and ontogenetically, the interplay of mind, body and the ambient material world unfolds.

“[N]euroarchaeology is strictly an interactionist approach, aiming primarily to understand the bidirectional links between brains, minds and culture. Brain activity is a crucial component of the human mind but so is also material culture.”<sup>7</sup> Material engagement has a crucial role in the evolution of cognitive skills. “The mind works through the body.” Accordingly, “[w]eight has first to be perceived as a physical reality – in hands and arms, not just in the brain within the skull – before it can be conceptualized and measured”.<sup>8</sup> The artefacts of material engagement serve as a material scaffold for cognitive processes as a manifestation of new cognitive skills, and thus pave the way, in the long run, toward metacognition. Similarly, Palaeolithic images provided a new epistemic access to the world.

The endeavour to overcome the paradoxes of traditional metaphysics resulted in revised concepts of cognition, perception, and hence the relation between human agents and their environment. In the current paper, by highlighting some key foci – such as Bergson, Merleau-Ponty and recent enactive approach theory applied in neuroarchaeology – I attempted to show that along the path of elaborating a new setup we can see that it is not by chance that the meaning of

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<sup>6</sup> M. Merleau-Ponty, *The World of Perception* [1948], 2004, p. 101.

<sup>7</sup> L. Malafouris, “Metaplasticity and the Human Becoming: Principles of Neuroarchaeology”, *Journal of Anthropological Sciences*, vol. 88 (2010), p. 64.

<sup>8</sup> L. Malafouris, *How Things Shape the Mind: A Theory of Material Engagement*, 2013, p. 33.

“image” oscillates between the physical and the mental. It is because images are, from the very beginning, capable of facilitating cognitive skills both from the perceiver’s and the creator’s side, and at the same time they are lasting manifestation of this process.



[SEE THE VIDEO](#)

*Rudolf Lüthe*  
Aachen (Germany)

## **Using Images: Do They Describe or Avoid Reality?**

The question in the title has a specific importance in the context of our culture today, because this culture seems to be increasingly determined by images, virtual worlds and fictions. With these new conditions, a completely new danger appears to be emerging: the danger of a structural loss of reality – for example in the context of computer game addiction.

From my philosophical point of view, which is a strictly Kantian one, the seductiveness of human beings by fictions and fictitious worlds can be explained quite easily: according to Kant, we always live in the world of our imaginations (Kantian: things as appearances, phenomena: perceived things) – and these have a complicated relationship to the so-called (actual) reality (Kantian: world of things in itself, noumena – merely imagined things). We do not live in the world of things in themselves and of objective facts, but rather in the world of our ideas about things and about facts. The situation is made even more complicated by the fact that images of things and facts are among the things and facts; and their relationship to the “actual” things and facts is also complicated. When the so-called reality seems to consist more and more of images (of this reality or at least of some reality), the situation becomes confusing. Jürgen Habermas, in a different context, aptly speaks of the “new complexity”.

In the following I will therefore defend the thesis that, in a well-defined sense, we have always lived more in “unreal realities” than in the so-called “actual reality”; the present situation is not completely new in this respect. Only the importance of “unreal realities” has increased. In order to make this strange doctrine plausible – before all talk of illusory worlds, illusory realities, virtual worlds – it must first be clarified what we mean when we speak of the actual reality. Furthermore, it must be clear what is meant by the formulation that a reality is not real, that it deceives us, lies, pretends something. In this context, I will also claim that deception is not such a bad thing.

I can now draw the most important conclusion from these very general and abstract arguments: In an allusion to a famous Kantian thought, namely that man is “a citizen of two worlds”, this conclusion can be formulated as follows: Man is a citizen of many worlds, because he inevitably lives in many realities at the same time. One of his essential intellectual achievements is to keep these many realities apart.

This task is more difficult to accomplish under the conditions of post-modern image and media overload than in the times of Kant’s own life. But it is not impossible. The philosopher does not have the same tasks as a media educator; but at least he can formulate some principles in this context, which should guide a healthy and fruitful approach to the unreal realities in the postmodern flood of images and media: We need to remain in permanent contact with the directly sensually given reality when we at the same time let ourselves into the various forms of unreal realities. Metaphorically speaking: It is good to walk around in these other worlds, but we must always avoid to try and escape into non-sensual realities.

But how can we know the difference between walking and escaping in this context? My suggestions are pragmatic: Walks in realities that are not directly sensual invigorate the mind and should therefore be sought as an enrichment of our experiences. Walks differ from escapes by the following characteristics:

- a) They are for pleasure and enrichment, not for overcoming frustration and forgetting.

- b) They serve the purpose of contemplative self-discovery, not merely the distracting loss of self.
- c) They remain aware of their character as taking a holiday from everyday reality and do not succumb to the danger of confusing these other worlds with that of everyday life.
- d) They do not therefore take the place of everyday realities: they should always consume much less time than our presence in everyday reality.

Madame Bovary and Don Quixote did not walk in their unreal realities; they fled into them. This is also reflected in the proportion of reading in their respective overall lives. However, this does not make the fictional worlds per se, but only the wrong way of dealing with them aesthetically and morally questionable.

My conclusion from these considerations is therefore: unreal realities are sources of possible cultural enrichment. We should walk in them, but we must never flee into them.



# **VISUAL IDENTITY**



[SEE THE VIDEO](#)

*Andrea Kárpáti*  
Corvinus University of Budapest

## **Misbehaving Images – Expressing Identity through Cultural Symbol Systems**

In Visual Culture Learning Communities, young people engage in art activities 10–20 hours weekly in their free time, without any practical purpose or reward. In a cultural anthropological study undertaken in 2010–2011, we revealed how these communities function in six countries and why their peer-to-peer art and design training is so popular. The groups varied largely in size (3–30 members) and age (16–28 years, two generations collaborating). The youth groups we studied were active in Amsterdam, Budapest, Chicago, Helsinki, Hong Kong, Istanbul and Montreal – large cities with a wide range of cultural options. However, group members spent 5–6 hours weekly for 4 years in average, practicing and enhancing their visual skills.

Participant observations and documentation of group process and creative products enabled researchers to *map the “informal” visual language of youth*, describe educational practices that seemed to be both motivating and effective, and characterize their collaboration in knowledge building creative networks to make recommendations for formal art and design education to integrate successful informal

learning methods. This research on Visual Culture Learning Communities was published in art education journals.<sup>1</sup>

In order to explore changes of creative practices and values of youth cultures, nine years later, in 2019, we invited Communication and Media Theory M.A. students of Corvinus University of Budapest to act as peer observers and see if youth cultures identified as important were still observable and relevant about a decade later. Students worked in groups of 3–4, and employed similar methods (participant observation, interview, survey, iconographic and document analysis, and case studies) as the international research mentioned above. This field study was part of a university course called “Creative Visuality” that invites students to reflect on contemporary culture through media communication. In the 2-year international project and the four-month student study, the (re)interpretation of conventional imagery and values within, as well as the creation of new, often “misbehaving” (shocking, repelling) images was an important activity revealed in the communities.

The central question for both studies was the same: why do adolescents and young adults engage in *visual identity formation* so intensively? Why are visual processes of creating an image to symbolise their identities so important for them? Interviews show that the reason for the preference of visual language is the same in 2010 and in 2020: the multiple interpretations of visualizations seem to be more adequate for expressing the state of the soul in transition from youth to adulthood, and the rupture from youthful ideals and the need to preserve them. Symbols like a skull, a sword or a rosebud are loaded with hundreds of years of traditional meaning. Religious faith, cruelty of war or burning desire have been pre-formed, experienced

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<sup>1</sup> K. Freedman, E. Heijnen, M. Kallio-Tavin, A. Kárpáti, L. Papp, “Visual Culture Learning Communities: How and What Students Come to Know in Informal Art Groups”, *Studies in Art Education*, vol. 54, no. 2 (2013), pp. 103–115; A. Kárpáti, K. Freedman, E. Heijnen, M. Kallio-Tavin, J. C. Castro, “Collaboration in Visual Culture Learning Communities: Towards a Synergy of Individual and Collective Creative Practice”, *International Journal of Art & Design Education*, vol. 36, no. 2 (2016), pp. 164–175, <https://doi.org/10.1111/jade.12099>.

at school conscientiously and in the media unconsciously, then re-used in youth communities with their inherent historic layers that shine through even the most advanced digital representation.

It was interesting to note *how changing lifestyles affect the popularity of a cultural form*. From among those identified in 2010 as both highly popular and visual, the communities of cosplayers, gamers, graffiti artists, skaters and scouts survived till the present day and are still part of the youth scene in 2020. Some cultures like punks, skinheads and Goths seem to have lost their appeal. Nowadays, they belong to the curious relics of anxieties about the future at the turn of the 20th and 21st centuries. The changing sociocultural context reshaped these depressive and gloomy cultures, and their “misbehaving” images became commonplace or loaded with new, more frivolous, death-mocking meaning for contemporary youth.

The first and second decades of the 21st century show different *group practices*. While the 2010 youth cultures identified themselves through differentiation from others, members of 2020 groups are more traditional. They refine tried and tested art and design techniques and working methods of the pioneers of their chosen youth culture. Two examples: manga artists and cosplayers (costume players, impersonating characters of a literary work in self-made costume). When these groups started in the 1970s, they concentrated on the content of their visual domain. Thousands of young people flocked to courses of Japanese art and culture, others eagerly studied the *Lord of the Rings* by J. R. R. Tolkien (first published in 1954) to produce the most authentic garment and props for a lengthy cosplay. Sophisticated group rituals served an in-depth immersion in their culture. For European amateur manga artists, authenticity meant a strive to identify with historic characters of Japan, for cosplayers, identification with Medieval English knights.

In 2020, however, interaction between group members that used to focus on getting to know the spiritual background of the culture they wanted to practice is replaced by exchanging techniques to develop objects and image sequences of high quality. In the communities working in 2020, group activities are more action oriented. Beautifully executed manga stories and attractive cosplay garments

with breathtakingly lifelike props show deep knowledge of the technological side of the culture, but less attention seems to be given to its social and historical context. In an age of digitalization and virtual reality, material qualities and craftsmanship seem to be more important than ideology.

[SEE THE VIDEO](#)

*Eszter Deli, Klaudia Jakab, Fruzsina Mikó*  
Corvinus University of Budapest

## **The Bold Vision**

### **An Analysis of the Visual Language and Imagery of Hungarian Romas**

Roma/Gypsy art has been recognized and appreciated for a very long time, for it nurtures the nature and depth of the culture it comes and draws its energy from. Pointed out by Liégeois,<sup>1</sup> much of the originality of the Roma art lies in the quality of creative interpretation as a form of creation. With its bold colours, singular dressing, dance moves, paintings and music, Gypsy art is truly a hybrid one.

Despite all endeavours for complete integration, the unfavourable social and economic situation of the Roma population in Hungary is a frequent topic in public discourse. The significance of the issue is not in question: it is estimated that the Roma population of the country is approx. 6–7%, constituting the poorest, most isolated and vulnerable group in society.<sup>2</sup> Art-related activities have a momentous role in increasing the disadvantaged Roma population's school performance and compensate for their socialization disadvan-

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<sup>1</sup> Jean-Pierre Liégeois, *Roma, Gypsies, Travellers*, Strasbourg: Council of Europe, 1994.

<sup>2</sup> Anikó Bernát, “Leszakadóban: a romák társadalmi helyzete a mai Magyarországon” [In the Lag: The Social Situation of the Roma in Today's Hungary], *Társadalmi Riport* [Social Report], Budapest TARKI Social Research Institute, 2014.

tages. Our alma mater, Corvinus University of Budapest, participates in the Horizon 2020 Program of the AMASS Project, which has defined the European Union's research and development policy for 2014–2020. The aim of this project – nearing completion very soon – has been to study the development of young Roma women living in extreme poverty through the evaluation of long-term successful educational programs.

After alluding to a possible conceptualization of Roma art, the present paper introduces the situation of visual education of Hungarian Romas – [see the video!](#) – through presenting the best practices used in the currently running domestic development programs, based on the background of two in-depth expert interviews conducted with prominent individuals who have successfully implemented development programs for disadvantaged Roma. Zoltán Balog, former Minister of Human Resources, and Nóra L. Ritók, professional leader of the Real Pearl Foundation nongovernmental organization, were asked about their experience. Besides the examination of the external agents of the visual development of Roma integration, a qualitative content analysis of 30 paintings created by 30 different Roma artists was executed in order to shed light on how the Gypsy artists – as internal agents – themselves communicate their culture and see how their visuality reflects the attitudes of Gypsy communities.

It is obviously beyond the scope of this research to give a general conceptualization of Hungarian Roma art; rather, this research is meant to be an exercise in visual rhetoric drawing on the codes offered by Daniel Chandler in his work *Semiotics: The Basics*,<sup>3</sup> and thus it seeks to provide the semiotic-rhetorical analysis of the works of Hungarian gypsy artists in order to interpret their social, aesthetic, ideological and rhetorical intentions to customize the implemented development programs to their culture and the visual framework which will serve their integration to the fullest. Images were selected using the methodology of random sampling with the keywords “Roma painting”, “Roma fine art”, “Gypsy painting”, depending on the availability on the internet. Our goal was to get to

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<sup>3</sup> London & New York: Routledge, 2002.

know the characteristics and displayed themes of Roma painting more deeply by analyzing their pictures. Having executed the analysis, the authors have gained insight to the visual language and imagery of Hungarian Romas, finding that Roma artists prefer to use strong, vivid colours and have a truly human-centered visual representation. The persons represented in their art were mainly involved in everyday life and folk activities, gazing in the distance expressing sadness, fear or anger. Our research also pointed out a true fascination about female fertility within Roma art, and love and attraction were a crucial part of their depiction; however, the main topoi conveyed by the images were discrimination, sadness, suffering and exclusion.

*“I leave you alone with my paintings. If you are scared, come out to me. But you don’t have to be afraid – they’re good people in it.”*<sup>4</sup>  
István Szentandrásy, award-winning Hungarian Roma painter

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<sup>4</sup> Compare <https://ujpestmedia.hu/vasznat-simogato-festo/>.



[SEE THE VIDEO](#)

*Admilson Veloso da Silva – Alexandra Béni*  
Corvinus University of Budapest

## **Visual Representation of #Africa on Instagram A Tentative Netnography through the Analysis of Hashtag-linked Content**

The image of Africa has long been on the agenda of researchers and it seems like the long-standing critique on the continent's unbalanced media coverage has shifted in recent years. One of the perspectives is that a new narrative is on the rise concerning reports on Africa, which – on one hand – is much more varied and positive in tone, and – on the other hand – must be handled with caution as the meaning and implications of new representations require further research.

For this study, in order to make sense of geographically and culturally distant affairs and events, we rely on mental models that are based on prior experience, existing knowledge and incoming information – the means of which is provided by different media platforms. Visual inputs contribute to this process by highlighting particular aspects of discussed topics, thus adding to the construal of images – in this specific case, the image of Africa.

Even though narratives with images have been helping cultural understanding for centuries, the media of our time offer new, cross-cultural ways of producing and disseminating images. One example can be seen in Instagram, a visual social media platform that accounts for more than one billion users in 2020. By sharing images of their routines, people have the possibility to contribute to new narratives about spaces, feelings, cultures, etc.

Following the work of Kozinets, the present research was developed as a tentative netnography on Instagram in the first semester of 2020, based on the search of Top Posts classified with the #Africa in the six official languages of the continent: Arabic, English, French, Portuguese, Spanish, and Swahili. As a result of three rounds of sampling, 132 posts were collected, coded and analyzed using techniques of netnography and visual content analysis. We also took into consideration embedded elements from the posts, such as geotags and hashtags, to fully understand the image production context.

For the development of the content analysis, we worked with variables, such as “*Topic*”, “*Focus*”, “*Locality*”, “*What is Africa?*” and “*Frame*”, for all of which the eligible categories were clearly defined in a codebook. When defining the categories, we aimed for mutually exclusive and collectively exhaustive values, thus following the guidelines of Neuen-dorf. Therefore, departing from the question “How is #Africa represented on Instagram?”, the study seeks to analyze the possibilities brought by visual social media with user participation into the continent’s imagery narratives.

Within the scope of this research, it is possible to notice that user-generated content has an impact on how Africa is depicted visually. Although traditional perspectives of the continent such as a culturally and naturally diverse region, and a place of exotic wonders and wilderness worthy to be explored by the outside world remain; it is also represented as a symbolic virtual territory spread beyond its own borders; and a disputed representational imagery increasingly driven by local agents.

Thus, our findings suggest that visual social media contributes to the development of new narratives about our understanding of Africa. It appears that the image conveyed through Instagram covers a wider range of topics (cf. research on the media representation of Africa on traditional platforms) and offers a chance for local actors to take lead in the dynamic and involved idea of image-creation. However, due to the tentative nature of our research, further inquiry is needed to have a broader understanding of such complex processes. To summarize, this study offers a novel approach both in methodology and analysis, therefore it hopes to contribute to the academic discourse about the representation of Africa, especially regarding new media studies.

[SEE THE VIDEO](#)

*Vicky Karaïskou*  
Open University of Cyprus

**“Same, same but different”:  
BABELproject  
and the Multifold Meanings of a Single Image**

The origins of the phrase “Same, same but different” are vague and its meaning holds a variety of explanations. However, the Thai self-referential catchphrase states a fundamental reality applicable at many levels in daily life. When we look, we subconsciously consent to accept what is confirmed to us as such because we only perceive what we think is. That context of “familiar” engages our existing mental “stepping-stones”.

With an aim to display the diverse interpretations and connotations people attribute to words and images, as well as the deriving subjective affect, BABEL started as a student’s project in 2018. It put neuroscience into practice and reframed Panofsky’s theory. BABELproject expanded the already collected material and created a global digital community and material pool on Facebook in April 2020 (@BABELprojectOUC).

Students of the Master’s programme “Cultural Policy and Development” of the Open University of Cyprus were given eight abstract concepts and were asked to take their smart-phones or cameras and attribute a spontaneous image to each one of them. The visuals submitted were impressively diverse.

According to neuroscientists and psychologists, people have different reactions and interpretations to identical verbal and visual stimuli. Reason is that the human brain automatically makes sense of incoming information depending on both the cultural and the individual context of pre-existing memories, experiences, and the resulting making-sense process. Although members of the same cultural groups interpret in rather similar manner concepts and images, especially those repeated in the public sphere, there is still much space for variation and diversity. Affect holds a major role in this process as it is the salient factor that determines the intensity and quality of the memory imprints.

The students' second task was to visit the page; choose four pictures from unknown contributors among the eight aforementioned concepts / albums; imagine the story behind them (what would the person's profile, feelings, thoughts or experiences be); and put these subjective interpretations in a short text. This second task revealed that students chose and explained images according to their own emotional narratives, and mind-frames. There were clear associations with their own, initial visual interpretations of the eight concepts.

BABELproject reaffirms two important facts: how individual meaning varies; and how our interpretations of reality regulate our choices. Common denominator here is that different interpretations generate different emotions, dispositions, mind-sets, and reactions. Our choices constitute by far a subconscious process regulated by and regulating anew – in an endless circle – projections that channel us to certain prospects.

Our “reading” of images reassures our familiar “territories”. We project our memories and interpretations of the past to what surrounds us in our daily life. Due to this affect load, as well as the resulting stereotypes we recognize in them, images shape our attitudes in the present, and, at the same time, they train us on how to act in the future. Images constitute our broad vocabulary, far more legible and comprehensible than words.

BABELproject unveils our perceptions, beliefs and the resulting expectations. It challenges the illusion of sameness and notions of

a common shared reality. Although we all exist at the intersection of our individual and collective memories and identities, still what we say matters; what we do matters; and how we think, certainly, matters.<sup>1</sup>

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<sup>1</sup> Some earlier, selected literature on the topic: Robert B. Zajonc, “Feeling and Thinking: Preferences Need No Inferences”, *American Psychologist*, vol. 35, no. 2 (1980), pp. 151–175; Antonio R. Damasio, *Descartes’ Error: Emotion, Reason, and the Human Brain*, Putnam Publishing, 1994; Marvin M. Chun and Yuhong Jiang, “Contextual Cueing: Implicit Learning and Memory of Visual Context Guides Spatial Attention”, *Cognitive Psychology*, vol. 36, issue 1 (1998), pp. 28–71; Wulf Kansteiner, “Finding Meaning in Memory: A Methodological Critique of Collective Memory Studies”, *History and Theory*, vol. 41, no. 2 (2002), pp. 179–197; Daniel G. Dillon, Maureen Ritchey, Brian D. Johnson, Kevin S. LaBar, “Dissociable Effects of Conscious Emotion Regulation Strategies on Explicit and Implicit Memory”, *Emotion*, vol. 7, issue 2 (2007), pp. 354–365; Arni Kristjansson and Gianluca Campana, “Where Perception Meets Memory: A Review of Repetition Priming in Visual Search Tasks”, *Attention, Perception & Psychophysics*, vol. 72, no. 1 (2010), pp. 5–18.



[SEE THE VIDEO](#)

*Ádám Kuttner*

## **Virtual Images in Exhibition Communication**

Museums have focused on their communication to educate and inform the public for a very long time. As Kárpáti and Vásárhelyi showed<sup>1</sup> this activity's main purpose was to transfer knowledge and information with the most typical tool: the text-based subject descriptions and various captions of the exhibitions. The digital revolution changed the habits of museum visitors, which also affected the museums. This led to the gradual appearance of computers and interactive devices at exhibitions.

Undoubtedly, museums and exhibitions' biggest advantage is that they can provide visitors the opportunity to meet original objects. At the same time, museums need to constantly monitor, address, and respond to changes in visitors' communication habits in order to function as a relevant community space.

Several contemporary multimedia technologies have evolved and spread rapidly in many areas of life over the past few years, and some applications were also able to address masses. At the beginning of the research, we assumed that images generated by virtual, mixed, or augmented reality and artificial intelligence offer innovative approaches to improve the quality and aesthetic of exhibitions.

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<sup>1</sup> A. Kárpáti and T. Vásárhelyi, *Exhibition Communication*, Budapest: Eötvös Loránd University, 2013.

In the 2019 and 2020 examination, 31 applications were presented from 16 institutions in 11 countries and documented and evaluated on the basis of interactivity, technical standard, authenticity, and communicative values.

The main purpose of the technology is not the transfer of information, but rather to enhance reality. The theoretical background of the study is the communication model that was developed by J. W. Carey in his work *Communication As Culture: Essays on Media and Society*, in 1989.<sup>2</sup> The Carey model describes communication as a series of processes and symbols that produce, maintain, improve, and transform reality. Carey considered communication as a form of secular ritual that supports sharing, participation, community, and union.

The main question the research posed was whether contemporary multimedia technology serves the purpose of which was intended: as a suitable exhibition communication tool for the creation of the “museum ritual”. Secondly, the research evaluated whether the technology is able to enhance the visitor experience in a way that does not detract from it, but rather increases the authentic and scientific nature of the exhibition. Thirdly, it was important to discern whether the technology was innovative by itself, or would only have positive effects through a planned, conscious, and prudent application.

The most important result of the study is that the examined technology redefines the relationship between exhibitions and museum visitors. It is suitable for improving the visitor experience, in some cases, even for replacing the exhibited objects (too small, rare, dangerous, etc.), or for presenting and modeling special items that are difficult or impossible for the exhibition.

But the technology doesn't carry innovation by itself as many partially or completely failed documented developments shows. Experience has shown that development became a successful exhibition communication tool if the design 1) took into consideration the change of content consumption habits of museum visitors, 2) established corresponding communication goals, and 3) took into account

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<sup>2</sup> Boston: Unwin Hyman.

the specifics of the new kind of exhibition communication tool. The negative findings revealed in the study show that more research in this field needs to be conducted and general development guidelines need to be created to avoid failures.



[SEE THE VIDEO](#)

*Karolina Golinowska*

Institute of Cultural Sciences, Kazimierz Wielki University, Poland

## **Historical Imagination Land: Postindustrial Heritage Site as a Journey through the Time that Has Never Existed**

For several decades now we have observed a tendency to exhibit sites of tangible heritage in a way which enables the viewer to experience loss of time. This tendency eliminates the distance (a common experience in a traditional museum) between the viewer and the so-called emblems of the past. In academic analyses, this phenomenon is defined as “living history” or “visitable history”.

**Living history**, considered as an arena where history happens, became a dominant idea for exhibitions as early as the 1980s.<sup>1</sup> By becoming immersed in this apparently existing world, the tourist gained the opportunity not only to see the “original” landscape of the past, but also to connect with “the real” people impersonated by actors. In order to create a sense of authenticity, “the real” people would speak in the first person, pretending they did not know anything about contemporaneity. Unfortunately, this way of presenting the past created not only the impression of time travelling, but also

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<sup>1</sup> David Lowenthal, *The Heritage Crusade and the Spoils of History*, Cambridge: Cambridge University Press, 1998; David Lowenthal, *The Past is a Foreign Country – Revisited*, Cambridge: Cambridge University Press, 2015.

contributed to the idea that the past could be experienced in this “unforgettable”, banalized and infantilized way.

“**Visitable history**” is regarded as a deep exploration of local resources that enables the traces of the past (such as urban space, architecture or smaller artefacts) to cumulate into a journey through the time.<sup>2</sup> However, local specificity exhibited in such places does not make them immune to the influence of global tourism.

Both visitable history and living history create a way of experiencing the past from the present moment, which means they *de facto* serve as tools for shaping *the content of cultural memory*.<sup>3</sup> It is important to bear in mind that history and memory are two separate and autonomous discourses about the past with different social functions ascribed to them.<sup>4</sup> Even if we consider revitalizing historical places as a way of reassembling their original idea, they are still the arena for contemporary activities contributing to the process of experiencing loss of time. In other words, places “frozen in time” are not discursively static spaces but they actively shape the collective memory about themselves through the interactions and tourist experiences they offer.

This trend of experiencing the past is especially useful for *presentation of postindustrial heritage* that refers to the everyday life of common people, issues that would not be found in the official monumental history narratives. Their places of work were to become of special interest for the designers of this particular form of “time

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<sup>2</sup> Bella Dicks, *Culture on Display: The Production of Contemporary Visitability*, Maidenhead, Berkshire: Open University Press, 2004; Bella Dicks, *Heritage and Social Class*, in *The Palgrave Handbook of Contemporary Heritage Research*, ed. by Emma Waterton and Steve Watson, New York: Palgrave Macmillan, 2015.

<sup>3</sup> Aleida Assmann, *Memory, Individual and Collective*, in *The Oxford Handbook of Contextual Political Analysis*, ed. by Robert E. Goodin and Charles Tilly, Oxford: Oxford University Press, 2008; Aleida Assmann, “Re-framing Memory: Between Individual and Collective Forms of Constructing the Past”, in *Performing the Past: Memory, History, and Identity in Modern Europe*, ed. Karin Tilmans, Frank van Vree and Jay Winter, Amsterdam: Amsterdam University Press, 2010.

<sup>4</sup> Paul Ricoeur, *Memory, History, Forgetting*, Chicago: The University of Chicago Press, 2004.

travel”. That is why several decades ago so many factories, mining sites, shipyards or railway sites came to be opened for touristic purposes. Their *visual aspect*, the most important factor of this experience, contributes to the overall idea of the past as such, pretending that the tourist is served “real history”. This experience is created on the basis of the “*authentic*” character of the place. The whole idea of authenticity (an extremely Europocentric construct<sup>5</sup>) refers to the originality of substance and materials.

Nowadays this idea is complemented by the usage of virtual images that are supposed to intensify this experience. Still, it raises the question of why the past always must be experienced through its visual aspect and refer to the popular imaginary. This question becomes even more important if we truly consider the “authentic” character of postindustrial heritage sites – places with a specific smell, usually harmful for the ecosystem, employing dangerous construction and machinery. Not only is their “authentic” character reduced to a visual dimension but it also ignores all the aspects considered controversial or unpleasant. By that I mean that “the real history” is just a part of the process of the aestheticization of the past that always serves the more privileged parts of society.

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<sup>5</sup> Denis Byrne, *Counterheritage: Critical Perspectives on Heritage Conservation in Asia*, New York: Routledge, 2014; Laurajane Smith, *Uses of Heritage*, New York: Routledge, 2006.



# **FEMALE SELF-REPRESENTATION**



Preliminary paper prepared for the  
9TH BUDAPEST VISUAL LEARNING CONFERENCE – *HOW IMAGES BEHAVE*,  
to be held online on Nov. 26, 15:00–18:00 CET,  
organized by the Department of Technical Education,  
Budapest University of Technology and Economics,  
by Corvinus University of Budapest, and by the  
Committee for Communication and Media Theory  
of the Hungarian Academy of Sciences.

[SEE THE VIDEO](#)

*Zita Komár*

Corvinus University of Budapest

**“I’m bi\*\*h, I’m a lover, I’m child, I’m a mother,  
I’m a sinner, I’m a saint...”**  
– **Visual Representation of Ancient Goddesses  
and Modern Muses in Advertising  
in the Context of (Anti)Feminism**

Most of us are well aware of the goddesses from ancient Greek and Roman mythology, but there is little attention on their presence and symbolic significance today. According to mythology most of the ancient goddesses resided in the realms of the heavens above, but all of them portrayed the femininity and female archetypes of mortal women – introducing the whole life cycle of a woman.

Goddesses had special powers and could control specific aspects of life, moreover deities represented feminine values and gender roles as well. Today, these female archetypes appear in modern forms in various areas of social life, from which this presentation focuses on advertising. The aim of this paper is then to collect and identify the key visual images and elements of advertisements introducing eight of woman archetypes found in ancient mythology: Hebe/Flora; Hestia/Vesta; Hera/Juno; Leto/Latona; Aphrodite/Venus; Demeter/Ceres; Artemis/Diana; Athena/Minerva.

Each of the archetypes have been carefully selected according to the description of goddesses and associated values in order to un-

cover how these hidden figures form and shape our thinking of feminine values today. The table below summarizes the main features of the goddesses, their modern archetypes and the connected product types, key visuals and associated values.

According to this collection of ideas ancient goddesses represented a multi-faceted femininity surrounded by mythology and magic. At the same time each individual goddess also personified different aspects of life: feminine roles, characteristics and stages of life – e.g. Demeter/Ceres was the divine embodiment of agriculture and harvest, Hera/Juno epitomized the sacred values of marriage, Aphrodite/Venus represented the eternal woman. These goddesses not only justified their status as members of the Olympian family, but their divine presence can also be found in today's advertising images shaping the mindsets of 21st century people.

Greek Goddess	Roman Goddess	Main characteristics	Modern archetype	Product category/ type	Key visuals
Hebe	Flora	everlasting youth and beauty, freshness, goddess of flowers and spring, rejuvenation	teenager/ young woman", „innocent child", „representation of the new generation"	beauty products and cosmetics (natural); perfume, dressing and natural make-up; specific products for the newest generations (e.g. IT, mobile products)	bright, clear or vivid colours, water and nature-like background, transparent materials in clothing, airy and soft look
Hestia	Vesta	goddess of the hearth; virgin goddess of family; symbol of purity	„the untouchable woman"	beauty and basic skincare products	purity represented in a humanly (non-transcendent) way (e.g. pure body/skin); virginity is not commonly represented in ads
Hera	Juno	goddess of marriage and birth, protector of the family, trusted mother and wife	„married wife and mother", „heart of the community", „pillar of the family", keeping an eye of everything, problemsolving, always on the move	FMCG products (e.g. food, detergents, cleaning products, pet food, etc)	moving, lively images, the family is present, the character is in the center of the pictures and actively helps/supports others and/or she is the narrator of the story
Leto	Latona	goddess of motherhood and modesty, respected mother	„supermom", „the modern (single) mom"	food and all types of products for babies and children (e.g. baby powder, medicine, baby food nutriment, baby shampoo, toys, school products etc.); skincare products for the mother (e.g. body lotion, bodymilk etc.)	the story represents the struggling and happiness of a mom's life and her selfless attitude, tender or soft pictures show the bond between the baby and the mom or uses old fashioned grey images, rarely shows her mom alone
Aphrodite	Venus	goddess of love, (erotic) beauty, desire, passion, fertility, lust, prosperity, femininity, charm, allure	„the (sexy) woman", „mistress" (sex symbol/object of desire)	vast majority of ads for women and men (!), all types of products can be advertised and sold with one or more beautiful feminine figure(s). The original and innate archetype of advertisements!	representation of femininity (from a masculine point of view); images of the female body (physical or metaphorical representation), the body can be in the center or at the background as well
Demeter	Ceres	goddess of harvest and grain, protector of maidenhood, womanhood and motherhood	„independent, strong, mature, autonomous, self-confident woman"	various types of products ranging from beauty/skincare to sports and FMCG products, representing the strength of women (either in masculine and feminine meaning), Femvertising messages in ads	the woman with earthly powers supporting self and/or others (service to mankind); women walking their own way in the story, sometimes ads don't use words, just images, strong eye contact and character
Artemis	Diana	huntress/hunting goddess, chastity, sovereignty, impassibility, supremacy, inaccessibility	master of her profession (careerist woman, equal competitor); modern unmarried woman; free and playful, experience-seeker, self-driven	sport products; beauty and body products (natural or extravagant), business/profession connected services (e.g. office settings)	strong, wild or rebel character, feminine-masculine dimensions (androgynous character), accepts challenges and wants to excel
Athena	Minerva	wisdom, reasoning, and intelligence, knowledge, strategic warfare & self-defense, artistic powers	feminine leader (intelligence, wisdom, leadership skills, artistic and creative powers)	almost missing! (no advertisements have been found representing this character/ archetype, but some have delivered the message); She would be the counterpart of Aphrodite in advertising	none

This presentation aims to give voice to these ladies by selecting the images and archetypes of advertisements: as a result, it turned out that in spite of the many and various images of goddesses shown in modern advertising, the persona of the intelligent, wise and powerful leader (Athena-archetype) is almost absolutely missing. This conclusion can be seen as a paradox since Athena was one of the most worshiped and beloved goddesses of ancient times whom women and men turned to when asking for advice or support.

While there is a proliferation of “Aphrodite-type” of images in ads (favouring the message that associates woman with love/sex features), and moreover, thanks to the femvertising trend Demeter-related portrayals of the strong woman have become extremely popular in the last decade, there is no evidence to suggest that advertisements intentionally portray intelligent and creative women as the archetype of femininity and the feminine leader.



[SEE THE VIDEO](#)

*Orsolya Putz*

Eötvös Loránd University, Budapest

## **Prototypes of Women in American Advertisements A Machine Aided Image Analysis**

How were women visually represented in American advertisements in the last century? Are they sexy, sporty, housewives and/or stay-at-home moms? My current research intends to identify the prototypes of women in American ads.<sup>1</sup> The study is driven by the following research questions:

- What are the prototypes of women in American advertisements?
- What features do they have?
- How are the prototypes connected?
- How do they change over time?

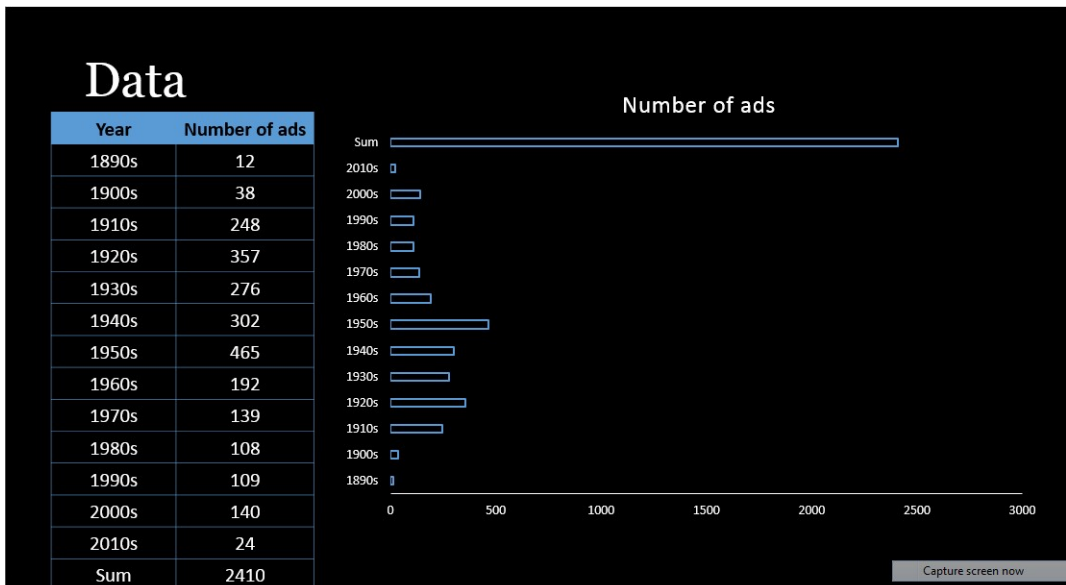
To be able to answer to these questions, data was collected from the Advertising Archives database, which contains over 100,000 well captioned and catalogued pictures. Images that are available online stem from American press adverts, American Magazine Covers and Artwork including story Illustrations, Mail Order Catalogues, Vintage Magazines, Posters, Postcards, Menus and Theatre Programmes.

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<sup>1</sup> Special thanks go to my husband, Zoltán Varjú without whom I couldn't have carried out this research.

The corpus was compiled on the basis of the following protocol:

1. First a search was run with the keyword “womens”. This keyword seemed to fit the research aim the best, since in the database there is no such category label as “woman” or “women”. But there are category labels containing the term “womens” (for example women’s fashion or women’s humour”).
2. As a second step the hits were narrowed down to American ads.
3. With this filtering, 2425 records were found ranging from the 1860s to the 2010s. Since manually downloading thousands of images one by one would have taken for ages, data was automatically scraped. Not only the images but their metadata (year and source of publication, name of the image) were also saved.
4. As a final step, I took a closer look at the images and found that there are decades in the early period (for instance the 1870s) that contain no or just very few images. Hence the time frame of the corpus was modified. The final corpus contains 2410 images and covers the period between the 1890s and the 2010s.



As the chart above shows, the distribution of the images is quite balanced in the 20th century. There are only some outlier categories. The earliest decades (namely the 1890s and the 1900s) and the latest (namely the 2010s) seem to be underrepresented, while the 1950s is a bit overrepresented.

This dataset is still considered suitable for the identification of the prototypes of women in American ads. But how can one make this corpus informative? These questions bring us to the issue of methodology. Due to the size of the corpus, data can be processed most effectively with machine learning, deep learning and AI methods. Each research question was approached with the most fitting machine-based method:<sup>2</sup>

- Prototypes were identified with clustering, which I will explain later on.
- The features of each prototype were studied at a deeper level on the basis of similarity metrics. It means that the most similar 5 images were enquired in case of certain selected images.
- It's hypothesized that the prototypes exist not in isolation in our mind, but they are connected. What we can easily investigate is the relation of the pictures of the corpus, based on graph theory and its computer-based application.
- Our intuition suggests that the image of the ideal woman changed since the 19th century, which must have affected the prototype of the woman as well. This issue was tackled by generating the mean image of each decade and then comparing them.

Among the four research sub-topics (namely the identification of prototypes, their features, their relations and their evolution), I focus on the first and most basic one in the next section. Let us see how women are represented in American ads.

Our algorithm suggested that the most ideal case is to divide the corpus into 8 groups. We could have written a model that creates 1, 2, 3, 50, or 100 clusters out of the corpus, but it was calculated that

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<sup>2</sup> Code: <https://github.com/crow-intelligence/womens>.

the ideal number in this case was 8, so the model was set to form 8 clusters. After getting 8 bunches of pictures, we studied them carefully and tried to identify features that they share or common features that connect them. This way, we came up with the following categories:

1. Face
2. Part of the body
3. Naked body
4. Artistic portrait
5. Artistic figure
6. With other persons and things
7. Clothes
8. Women as illustration

Before we see them one by one we must note that our method is based on the tense co-operation of human and machine intelligence. In this case, the machine investigated the 2400 images one by one, and sorted them into 8 categories. But it's a human task to provide this categorization with meaning, since only humans bare the sense of meaning-making. Now let's see the result of this joint venture!

# 1) Face

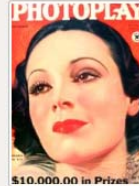
The first category contains images that solely represent the face of women. This phenomenon can be interpreted as a metonymy, since the face, a salient body part of humans, stands for the whole person. As the images suggest the face is in the center of the picture, and hence get to the center of attention. The plain background of the images makes the face even more emphatic. This cluster is mostly made up of illustrations.



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d3f7168ad165702c94948ae2afc89b66.jpg



d42e53512e91309d2bf5caad760af986.jpg



d578a09a21956d387fdf9142ed54420d.jpg



d3650ded5216cf3244ef353603c927ec.jpg



d8940bb0c910551085de520fc9318892.jpg



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faf9ee84fde8a28585e44efc83c8d53f.jpg



fe15ded1bb7715f1743f466c43d101f7.jpg



fec6fd8073ca8b0ded8975dd8f7aaaff.jpg

## 2) Part of the Body

The images of the next category let the viewer see more from the woman than her face. Images belonging to this category show mostly the upper part of the body. These women are captured while they are engaged in some kind of activity, like sitting, lying, hugging, kissing or phoning. The person or persons they are with and the object they manipulate get also to the focus of attention. Mostly illustrations belong to this category.



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5224e933.jpg



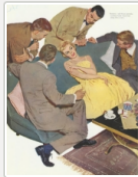
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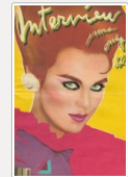
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a9d8711dc.jpg



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9956d5a09.jpg



92171f74f9882c34c6293b67  
54e300f8.jpg

### 3) Naked Body

The next prototype is the naked body. Our algorithm found those images similar that depict naked or partly naked women posing for the camera. Drawing one's attention on the woman's naked body, highlights such aspect of the body as the skin, the figure etc. One could easily argue that these illustrations and photos objectify the woman and are sexist.



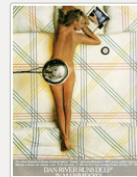
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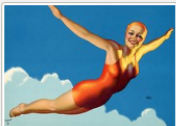
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7f3e5a79f5827be7887f7f6271f13529.jpg



7f7c445ada35c74f4883d00c9eddec32.jpg



8d1b6f8e19c172c9b1586a4589bb67a6.jpg



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68a20688efe9ba12ec9f3d10d971d5f4.jpg



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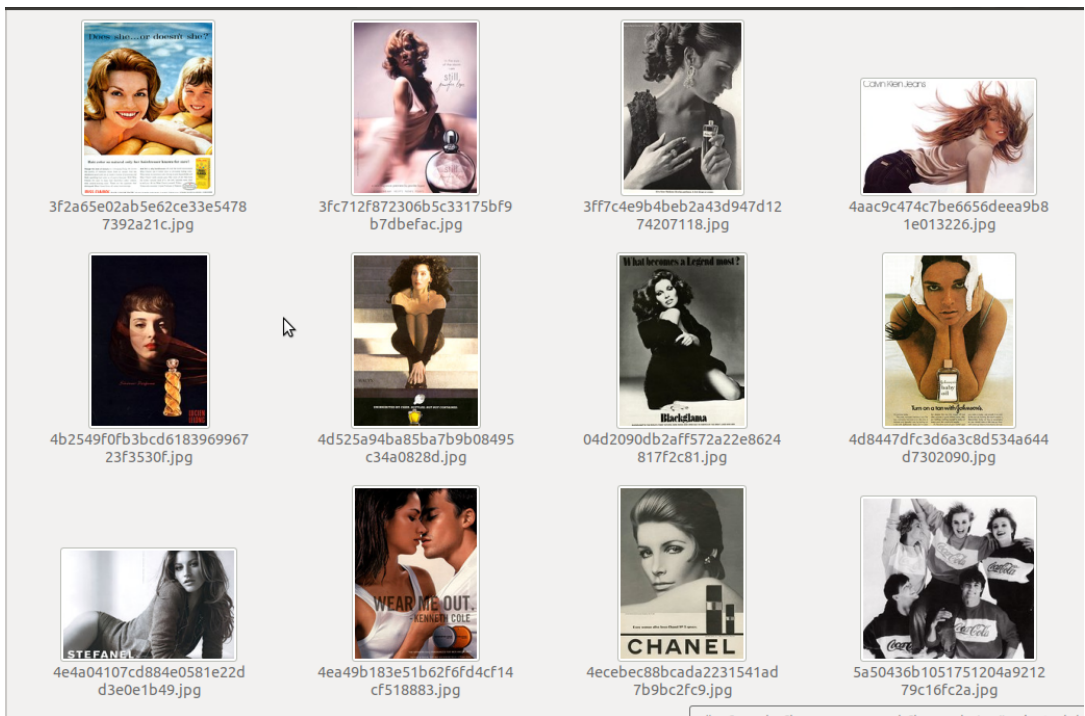
176f8f29a0c7be8580368dafd5c46252.jpg



0302e09bee76eb7cf013be7fba503918.jpg

## 4) Artistic Portrait

The body can be the subject of art. This category contains set photos, which were taken in a photo studio. Models are typically staring into the camera in artistic postures in an artistic background. One would consider these women sexy and attractive, but others would regard these photos as sexist. What we can be sure about is that these women advertise products (mostly cosmetics) of certain brands. They are often contacted to be the face of a brand.



## 5) Artistic Figure

The prototypical artistic figure of a woman is similar to the previous category, since these photos are also set and artistic. However in this case the background and the objects (e.g. bags) are more emphasized. The viewer has the impression that these women are depicted in a more natural environment, not necessarily in a photo studio.



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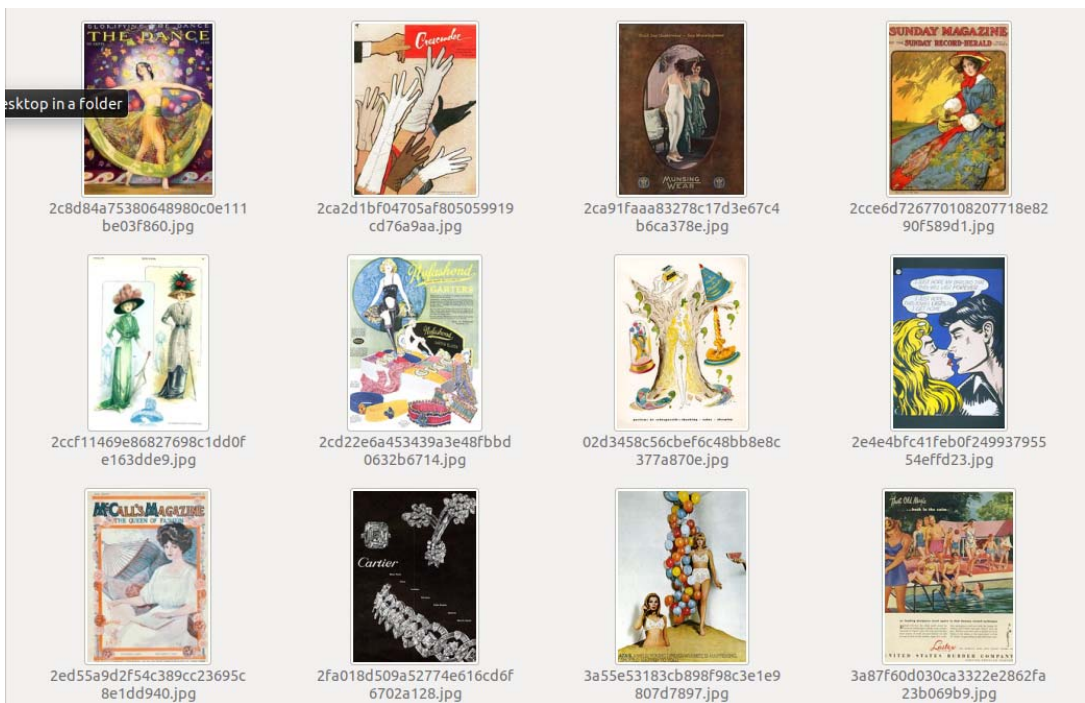
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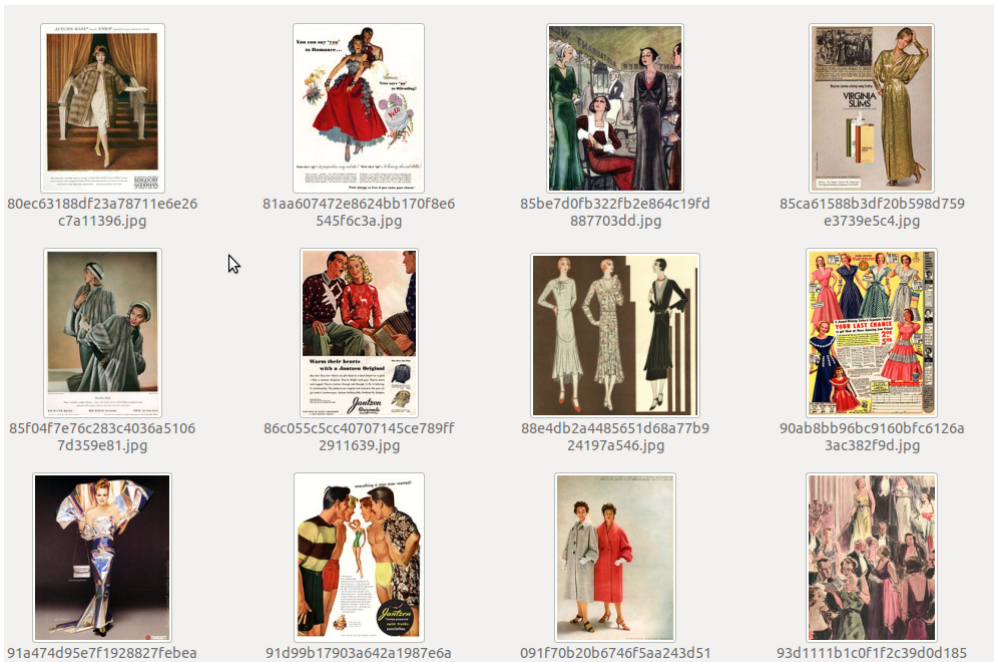
## 6) With Other Persons or Things

Women are also portrayed in big companies with other persons or things. The images of this category are typically crowded, detailed and colorful. The figure of the woman tends to be much smaller than in the previous categories, hence the woman is not (alone) in the center of attention.



## 7) Clothes

The prototypical woman wears fashionable clothes – according to the next category. Illustrations of this category draw the viewers’ attention not on the women’s body, but on their clothes.





[SEE THE VIDEO](#)

*Rachel A. Katz*  
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## **Grindr Tourism in Tel Aviv Hegemonic Masculinity Aesthetics among Tourist-Local Relations**

Alternative tourism strategies – such as Grindr tourism – are especially relevant in light of the travel industry’s disruption by coronavirus. Dating apps’ new “explore” features enable you to change your location and be “abroad” on Grindr from the comfort of your own home. This could mean that for many during the current pandemic, dating app tourism will be relied on even more to create international connections and simulate the feeling of travel. Unlike dating websites, dating apps are image-based, location-based, and mobile. This presentation focuses on the dating app Grindr, the world’s largest image-based dating app aimed at gay men.

I define Grindr tourism as the use of the dating app Grindr as part of a touristic experience. My research indicated that Grindr tourism can entail a bundle of practices, ranging from an interaction on Grindr as small as getting a restaurant recommendation from a local without ever meeting in person, or a brief sexual encounter with a local.

This study takes an interactionist (Goffman) and spatial approach (Dourish and Cresswell) to analyze the dynamics at play among tourist-local relations on Grindr. A qualitative mixed-methods

approach was undertaken, which included semi-structured interviews and optional audio diaries. 19 tourist and local participants took part.

The study found that mutual exoticization was a key aspect of Grindr relations. The tourist narrative of Israelis as exotic is not a postcolonial unidirectional perception of Israelis as exotic while tourists are not. Mutual exoticization occurs across numerous ethnicities and nationalities; it is predicated on difference. Mutual exoticization is coded visually through images and actions on Grindr. For example, flag emojis are used to represent countries of origin or languages spoken. The aesthetic embodiment of relative exoticism results in an increase of attention on Grindr.

Many tourists perceive the Israeli locals to be particularly attractive, tied to their supposed masculinity, exoticism, and ethnicity. As Shane, a 25-year-old tourist summarizes, “everyone in Tel Aviv is a muscle god”. Tourists’ visual descriptions of locals present an image of Israeli gay men as muscular, attractive, tan, and hirsute – and most of all, masculine. Tourist participants unknowingly describe aesthetics associated with a local Israeli ethnicity (one of many) called *Mizrahi* (Yossef). The Mizrahi “look” aligns with a common representation of hegemonic masculinity (Connell), an idealized masculinity at the top of a gender hierarchy. Part of the hegemonic Israeli masculinity is also related to being in the military (Sasson-Levy) as we can see from Tomer’s powerpoint quote. Locals will sometimes put pictures of themselves in uniform on Grindr to highlight their masculine appeal.

For locals, Grindr can be a site to the resistance of these strict masculine ideals, as well as the construction of them. Some participants resist displays of hegemonic masculinities on Grindr through interactions with others and visual presentations of themselves as more “feminine”. Examples include wearing skinny jeans or makeup in their profile photos. For the locals that do not visually adhere to hegemonic Mizrahi masculinity (and express it on Grindr), it is more of a struggle compared to other countries where there is more variety of gender expression on Grindr. Grindr is a space in which masculinities and gender regimes are negotiated.

Conclusions made about the case study can be applied to other liminal tourist destinations that do not fit neatly into postcolonial binaries. Bounded gender presentations and aesthetics of hegemonic Mizrahi masculinity are implicated in the mutual exoticization underpinning tourist-local Grindr relations, which can sometimes be detrimental for locals. Grindr tourism relies on an initial virtual and visual exotic encounter between tourists and locals; the visual is, therefore, paramount for the formations of relations.



[SEE THE VIDEO](#)

*Anikó Kristóf*  
Corvinus University of Budapest

## **Visual Self-Representation of Women in Masculine Dominated Environments**

### **Introduction**

The topic of my research is what communication and self-representation strategies women use in masculine dominated environments. For this, the paper is focusing on two areas: hunting and bodybuilding. It is examining what visual tools are used – colours, shapes, settings – or what female roles are applied in women’s self-representation. The author has chosen such groups as the subject of this research whose activities are related to the image of force or violence.

The goal was not to define what masculine and feminine characteristics are; the decision as to the topic was made because of demographic data available regarding these groups.

The groups that were studied had mostly male participants in significantly higher proportions. The proportion of huntresses among hunters is only 12% on average worldwide.<sup>1</sup> For bodybuilders, there is no exact number on how many people practice this sport, but wo-

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<sup>1</sup> G. Ericsson – B. Serup – T. Heberlein, “Female Hunting Participation in North America and Europe”, *Human Dimensions of Wildlife*, vol. 13, issue XXVIII (2008), pp. 443–458 ([10.1080/10871200802294265](https://doi.org/10.1080/10871200802294265)).

men only started competing in official competitions from 1979.<sup>2</sup> Of course, their numbers are now much higher than they used to be, as there is plenty of competition tailored to women, but many statistics show there are a higher proportion of men amongst the participants than women.

## Research

The research is based on a quantitative content analysis, and is based on images from the image sharing platform Instagram. Instagram is the biggest image-sharing platform for users to publish photos taken instantly, with or without editing.<sup>3</sup> For the sample, 250–250 images were analysed by the members of the two groups. Images were collected by filtering relevant hashtags of the groups, #huntress for huntresses and #bodybuildingwomen for bodybuilder women. They were then analysed in terms of the visual tools and display modes used in the different images, looking at what self-representation strategy they use in their posts, and what hashtags and displays were used.

The two groups use different tactics in their representation. Huntresses try to hide the fact of hunting, killing, and blood, while bodybuilder women try to highlight the implications of the sport.

This is also encouraged by the community. They usually try to convey the message that a strong body is equal to a strong will. Bodybuilder women embrace images and symbols that symbolize strength, while huntresses hide the most important factor involved in hunting – the killing.

There are also differences in their appearance. Huntresses have an elegant look, usually in a very romantic way, while the bodybuilder women try to highlight the implications of the sport. They often

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<sup>2</sup> S. A. Hunter, *Not Simply Women's Bodybuilding: Gender and the Female Competition Categories*. Thesis, Georgia State University, 2013, [https://scholarworks.gsu.edu/wsi\\_theses/27](https://scholarworks.gsu.edu/wsi_theses/27).

<sup>3</sup> J. Clement, *Most popular social networks worldwide as of January 2019, ranked by number of active users (in millions)*, 2019, <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>.

show up in photos during training, sweaty, with an imperfect look, but they got heavily sexualized images.

The preliminary hypothesis was that the two groups use different communication tactics in regards to the activity they are partaking in. Huntresses seek to beautify the fact that they killed an animal and portray themselves more “romantically”, taking less of the masculine nature of the sport. This is closely related to the old depictions of the huntresses, which, when modernized and revived, are more attached to nature and often use caring marks in their self-representation. In contrast, bodybuilder women try to highlight the fact of muscle building in their photos. As they do not have the opportunity to “beautify” their activities (since the elaborate, traditionally masculine body is the goal), they are much clearer, focused, highlighting this feature.

The preliminary hypothesis was confirmed. The two groups communicate completely differently. As you can see above, the huntresses seek to beautify the fact that they killed an animal and portray themselves more “romantically”. We can rarely see a gun or a killed animal, and we can’t see blood in their photos either. The actual act related to the hunt, and the things associated with it (blood, weapon), are hidden by the huntress and highlight a different direction in their photos. Most of the time, they put nature at the centre in their photos.

In contrast, bodybuilders try to highlight the fact of muscle building in their photos, but in order to be accepted, they try to use feminine tools, attitudes for these, and encourage women to accept their own bodies. They seek to highlight the muscles and associate this with a strong will. The strong body is drawn in parallel with the strong character.

If certain tools and types of appearances make it more successful for women to represent themselves in a man-dominated environment, it is worthwhile to follow those communication strategies for women. Acceptance of the environment can also be decisive, as well as what activities and images are associated with the activity of the environment, and how compatible they are with the image of femininity.



[SEE THE VIDEO](#)

*Judit Sebestény*  
Corvinus University of Budapest

## **The Importance of the “Taken-for-Granted”: The Visual Representation of Families in Domestic Sitcoms**

Domestic sitcoms (those that center around members of a household or a family unit) have always been an important part of television programming. There have been extensive researches on the depiction of families in these series as they are believed to influence viewers' expectations of ideal family life and family relations.

According to William Douglas,<sup>1</sup> this influence can occur in at least two ways. The first one is the “strategic” action and talk, that is constructed in order to entertain and has a specific function within the plot, therefore it is not a stable element of the series. On the other hand, there are some “taken-for-granted” surrounding features that are more recurrent and not tightly connected to the plot but are also much more than just the visual complementation of verbal actions: they provide additional information and allow viewers to construct a more stable interpretation of the family independently of the given

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<sup>1</sup> W. Douglas, *Television Families: Is Something Wrong in Suburbia?*, Mahwah, NJ/London: Lawrence Erlbaum Associates, 2003; W. Douglas, *Television Depictions of the American Family*, in C. R. Berger et al. (eds.) *The International Encyclopedia of Interpersonal Communication*, John Wiley & Sons, 2015.

situation. Such features are for example the dresses of the family members or their performed routine chores during a conversation.

This paper introduces a tentative research that attempted to shed light on some of these usually less salient details, namely the place where family members are situated, their clothes and their responsibilities in order to find out whether changing and stable characteristics of the visual representation of family roles can be observed over time. The longest running domestic sitcoms from the last three decades were chosen based on a set of inclusion criteria and their first episodes were analysed scene-by-scene with visual content analysis in order to see how popular sitcom families were first introduced to the audience. The three shows eventually selected for the analysis were *Roseanne*, *Everybody Loves Raymond* and *Modern Family*.

## **Place**

The place where the characters are usually situated in the family home is significant in terms of family roles or power: the living room is regarded as the place of relaxation while the kitchen as the place of work. The three first episodes were aired in 1988, 1996 and 2009 respectively, nevertheless all of them showed the kitchen with the mother preparing meal at the beginning – even *Modern Family* that centers around three interconnected families and shows more diverse family constructions. However the proportion of the visible places differs: in *Roseanne*, where the title character is the mother, in more than 60% of the running time the actions take place in the kitchen while in *Everybody Loves Raymond* where the title character is the father, more than 50% of the scenes are situated in the living room.

## Clothes

Clothes communicate social status, occupation or personality.<sup>2</sup> While Ray in *Everybody Loves Raymond* was first seen coming home wearing work clothes (and was wearing this outfit in more than 25% of the duration of the episode), father characters in *Modern Family* were coded wearing either casual or sportswear not emphasizing immediately that they provide for their family. Regarding colour, mothers were mostly coded wearing darker or less colourful clothes than fathers.

## Responsibilities

Household duties were only performed by the mothers in *Roseanne* and *Modern Family*, fathers for example were reading newspaper and playing with their mobile phones respectively while their wives were making breakfast. Only Ray in *Everybody Loves Raymond* was seen folding clothes with his wife. Children seemingly were not expected to help with the household at all which – as William Douglas<sup>3</sup> states – may imply that “the family defines childhood as a distinct developmental stage that involves a unique set of role requirements”.

Obviously, this visual content analysis alone can not inform us about the kind of judgements viewers make based on the “taken-for-granted” information and to what extent they are influenced by them. This tentative research only highlighted some elements in connection with the visual representation of families in domestic sitcoms that may subconsciously influence viewers’ assessment.

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<sup>2</sup> C. Hoffner, – J. Cantor, “Perceiving and Responding to Mass Media Characters”, in J. Bryant & D. Zillmann (eds.), *Communication: Responding to the Screen: Reception and Reaction Processes*, Mahwah, NJ: Lawrence Erlbaum Associates, 1991, pp. 63–101.

<sup>3</sup> W. Douglas, *Television Families*, p. 16.



# **FILM, MEDIA, VIRTUALITY**



[SEE THE VIDEO](#)

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## **Touch, Action!**

### **Handmade Movies, Amateur Performances**

Invited to a constant mediatisation of the experience, the contemporary spectator, as recently theorized by Francesco Casetti, is transformed into a performer, who is required to deal with a multitude of unprecedented expressions and forms that new media seem to offer.

Due to the narrowed gap between professional and amateur, media users nowadays experiment with new ways of using both devices and content, literally touching and shaping the medial body of moving images. It is therefore no coincidence that the shifting from a predominantly attentive to a performative and more active paradigm is often analysed in association with self-representational tendencies. More similar to the audiovisual self-portrait that Bellour theorizes than the audiovisual autobiography on which Bruss reflects, such audiovisual self-narratives play their own identity in the amateur medial territory of the everyday user.

Historically classified as vernacular by Hetrick and home-made by Odin, amateur video constitutes a precise category of non-fiction audiovisual products made by untrained camera operators who attempt to realistically represent life around them, more and more frequently driven by self-representational impulses. In this context, the figure of the prosumer, as defined by Toffler and Jenkins, performs grassroots practices and increasingly becomes more famil-

iar with media languages that innervate the daily experience of oneself in the ordinary world. Such amateur producer, thanks to the mobility and almost unconditional availability of the equipment, shapes a peculiar representational environment, characterized by a specific way of communication, an affective but also culturally connoted mode.

These narratives are in fact negotiated within the context of an Agambenian profanation, that brings the prosumer to the core of the self-portrayal dispositive. The amateur producer therefore pursues the representational act not only by the creation of the audiovisual objects themselves, but mostly through the gestures necessary to make such medial products.

In particular in the case of the selfie, the camera becomes literally incorporated, part of a hand-camera assemblage of which the self-representation constitutively bears the traces, since the selfie productive mode necessarily involves an embodied and enworlded subject, engaged in an intentional, technological and material production, as Sobchack argues. The gestural image that emerges from this process iconically takes shape thanks to a relationship of a deictic nature, which binds it to the producing subject and the material product, according to Frosh.

Consequently, amateur video is configured as an index and material expression of the will and creative act of its agent. Following Alfred Gell's theory of Agency – based, as well known, on the sign-index of Peircian semiotics, also a major reference of the ontological theories of the analogical image, as theorized by Barthes and Sontag – we can argue that the indexes are extension of the agency of those who make and use them, and therefore acquire the power to intervene in actual human life just like living and active being.

Amateur authorship thus appears to be configured in the presence and in the very agency of the subject involved in the first person, in physical and material inscription within the self-portrayal device, especially through the gesture of turning the screen towards one's face and starting the recording.

Within the framework of a phenomenological approach, such amateur performance occurs through bodily making as the outcome of the relationships between producer's gestures and contextual inter-

actions mediated by technologies. Intervening in the present and on the present, the practice of the selfie leaves a trace of reality which, rather than ontologically referring to an external subject, mostly concerns its own producer, at the same time object and subject of the representation.

In conclusion, the profanatory and self-representative audiovisual act, bearer of a performative agency, actualizes the transformative potential of the aesthetic experience and dissolves the dichotomies between artworld and lifeworld.



[SEE THE VIDEO](#)

*Pedro Branco – Guilherme Moura Fagundes*

## **Anthropological Cinema and the New Iconography of Climate Change**

A largely unexplored dimension of the wildfires that have been ravaging the planet is the imagery that gravitates around them. Increasingly pervasive in our everyday lives are the images of charred animal carcasses, of populations fleeing smouldering towns, of black smoke columns and of streams of molten metal. The inclination to resort more and more to images of wildfires as replacements for the worn out images of melting glaciers is the bedrock of the “new iconography of climate change”. This imagery of cataclysm is fed by – and feeds back into – a pyrophobic imaginary that looks at all kinds of fire through a negative lens.

However, not all forest fires should be shoehorned into this paradigm. Fire operates vital roles in certain ecological configurations, such as those that evolved in the midst of particular burning regimes, like savannas. Moreover, local forms of life – like indigenous and traditional communities – that use burning techniques for hunting, agriculture, breeding and foraging contribute to the formation of mosaics of burnt areas at different times. In addition to promoting fire-dependent life forms, these practices fragment combustible materials and reduce the occurrence and spread of megafires. There has been an upsurge in studies in the last decades suggesting

that the increase in wildfires stems in part from homogenised landscapes in which burning practices have been banned.

As science explained away the once mysteries of fire, it “shrank from Heracleitean universality to a laboratory demonstration”.<sup>1</sup> Fire was depleted of poetic substance. The photographic image enabled us to see in it “a life without presence”, fate, reason or motives, one in which everything is possible, “a life without soul”, a life of pure surface.<sup>2</sup> Onto that surface, we were free to project the values and affects that governed our own relationships to fire. Once it had become purely instrumental in the lives of urbanites and its ecology had been tucked away in engines, we lost touch with the diversity of modes of existence of rural and forest fires and came to “regard open flame as at best ornamental, suitable for ceremonial display, but otherwise a nuisance and always a threat”.<sup>3</sup>

Uncontested images of wildfires only reinforce this pyrophobic imaginary. Alternative imagery is thus needed to help us reshape our relationship to fire. However, in the absence of unconventional avenues of sense-making, “what the camera in fact grasps is the ‘natural’ world of the dominant ideology”.<sup>4</sup> Devoid of a degree of turbulence, images do little more than affirm the hegemony of the status quo, and run the risk of strengthening its claim to legitimacy. If we strive to de-create fire, that is, “to make it possible anew”, to “pull it out of the flux of meaning”, to open up “a zone of undecidability between the real and the possible” and to impose “a prolonged hesitation between image and meaning”, then we should turn

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<sup>1</sup> Stephen Pyne, *Fire: A Brief History*, Seattle & London: University of Washington Press, 2001, p. 138.

<sup>2</sup> Georg Lukács, “Thoughts on an Aesthetics of Cinema”, in Richard W. McCormick & Alison Guenther-Pal (eds.), *German Essays on Film*, New York: Continuum, 2004, pp. 11–16, the quoted passage on p. 13.

<sup>3</sup> Pyne, *op. cit.*, p. 117.

<sup>4</sup> Claire Johnston, “Women’s Cinema as Counter Cinema”, in Patricia Erens (ed.), *Sexual Stratagems: The World of Women in Film*, New York: Horizon Press, 1979, pp. 24–31, the quoted passage on p. 28.

our eyes to the editing room, because these are all potencies of montage.<sup>5</sup>

Ruby proposed an “Anthropological Cinema” by arguing that unorthodox approaches to filmmaking are better equipped than an observational style to yield representations of anthropological theory since, “like the constructs of experimental film, it is too complex to be packaged within the conventions of documentary realism”.<sup>6</sup> For us, experimentation is a way to radically displace images from their usual meanings and to release the viewer from conventionalised modes of reception. By embracing it, films become invested with a speculative orientation in which “theory” acquires a different meaning. In speculative filmmaking, a theory is a viable trajectory of becoming. We contend that the world needs this kind of film to unsettle those truths we take for granted and provide some poetic substance to underpin the difficult conversations we need to have about coexisting with fire, which is sure to stick around as an important inhabitant of the 21st century – for better or for worse.

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This line of inquiry grew from the process of making sense of our experiences crafting the short film *Outro Fogo* and screening and debating it in a plethora of fora, events and film festivals. Directed by Guilherme M. Fagundes and edited by Pedro Branco, *Outro Fogo* is an experimental ethnographic film about affinity and enmity relationships with fire in territories of the Brazilian savanna biome cerrado where state-led environmental management overlaps with traditional *Quilombola* communities. Please find it at <https://vimeo.com/canaliris/outrofogo>.<sup>7</sup>

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<sup>5</sup> Giorgio Agamben, “Difference and Repetition: On Guy Debord’s Films”, in Tom McDonough (ed.), *Guy Debord and the Situationist International: Texts and Documents*, Cambridge, MA: The MIT Press, 2002, see there pp. 316–318.

<sup>6</sup> Jay Ruby, “Towards an Anthropological Cinema”, talk delivered at the 2008 Nordic Anthropological Film Association Meetings in Ísafjörur, Iceland.

<sup>7</sup> Contact the authors at [pedrobranco.brasil@gmail.com](mailto:pedrobranco.brasil@gmail.com) and [guilhermefagundesantro@gmail.com](mailto:guilhermefagundesantro@gmail.com).



[SEE THE VIDEO](#)

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## **Medial Environments, Virtual Images and Aesthetic Experience in the Digital Age**

### **1. Aesthetics and Interactivity in the Digital Era**

The debate that characterizes aesthetics' actual perspectives offers several elements to discuss the relation that we are establishing with pictures and images in the digital age, as well as its consequences on an educational level. The increasingly pervasive mediation processed by digital technologies is re-defining the perceptual aspects that characterize our relationship with images. The medial dimension of pictures allows increasing possibilities to interact and manipulate them.<sup>1</sup> More and more often, in fact, we experience images in medial environments defined by an interactive articulation, in which devices and analog objects are involved. Within this relational and interactive framework, the distinction between experience-of and experience-with is crucial, as it generates an experiential field which can be aesthetically qualified.<sup>2</sup> We argue that, in order to determine the authenticity of the aesthetic experience as regards images in medial envi-

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<sup>1</sup> W. J. T. Mitchell, *Image Science: Iconology, Visual Culture, and Media Aesthetics*, Chicago: The University of Chicago Press, 2015.

<sup>2</sup> G. Matteucci, "The (Aesthetic) Extended Mind: Aesthetics from Experience-of to Experience-with", *European Society for Aesthetics* 10 (2018), pp. 400–429.

ronments, looking at elements such as unpredictability, creative invention and the use of imaginative faculties are crucial. The impact of this relational and interactive paradigm within the educational field excludes forms of passive reception of images and suggests the importance of providing contexts where images can be actively and critically created and experienced.

## **2. Digital Technologies and Aesthetic Experience**

To develop a process of re-estetization of the experience in immersive environments, it is important to allow the expression of creative faculties and the interaction between digital tools and analog materials. To understand the qualities of this type of experience, it is useful to refer to the concept of mixed reality, as it implies complex relationships between the sensory and cognitive dimensions, as well as the interweaving of different symbolic codes. In the era of neo-technologies, digital media represent one of the main places of experience, as their etymological root “medium” indicates: a place of relationship, of exchange.<sup>3</sup> The issue of the aesthetic aspects related to digital technologies concerns the continuous processes of transformation of our sensitive perception operated by such devices through the various types of interface we interact with. For example, we do not perceive the environment that surrounds us as an object of passive contemplation, but as a vast field of action and interaction in which we are dynamically involved also through the mediation of digital images. Furthermore, the concept of digital interactivity is strictly related to the aesthetic sphere. In fact, it takes into account the creative margins available to the subject in the process of identification with the performances that digital technologies express in interactive contexts, allowing a subject to elaborate various strategies of explorations. To develop such processes, it is necessary to design

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<sup>3</sup> R. Diodato, “Phenomenology of the Virtual Body: An Introduction. In *Eco-Phenomenology: Life, Human Life, Post-Human Life in the Harmony of the Cosmos (Analecta Husserliana 121)*, Cham: Springer, 2018, pp. 569–579.

environments in which the interaction between the subjects and the devices can evolve in unforeseen directions.

### 3. Exploratory Experiences

The exploration of how our perception works within immersive environments, characterized by multiple possibilities of interaction with analogue materials, opens up new possibilities to develop creative faculties. At Scintillae, a research space promoted by the Reggio Children Foundation and the Lego Foundation, some relevant experiences related to these topics have been designed and proposed to small groups of children (cf. picture below).



*Exploring virtual projection of analogue material.*

In the picture we can notice that by selecting different materials, testing, modifying them with an optical effects' app and video projecting them, the exploration of the affordances of digital and analog materials led to the creation of interesting and unexpected forms of interactions. Such exploratory experiences realized in immersive environments could lead to further researches aimed at opening unexpected ways to re-interpret media literacy and media education by fostering multimodal and interactive experiences that allow the development of new forms of aesthetic education in the digital age.

[SEE THE VIDEO](#)

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## **Ready Rhetor One – Using Virtual Reality in Rhetoric Education**

Anxiety when it comes to public speaking is a common fear for many people, affecting a significant portion of the population.<sup>1</sup> Although exact numbers differ between populations, and how researchers decide to categorize public speaking anxiety,<sup>2</sup> it still stands as one of the most common anxiety inducing situations for many of us. Researchers have tried to find effective ways to help people to overcome this anxiety. Different exposure therapy methods have been researched for decades at this point, and are a common tool in dealing with patients who struggle with different social phobias.<sup>3</sup>

As new technologies started to emerge, scientists have started to look at different tools they might use to help patients. Virtual real-

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<sup>1</sup> T. Furmark, M. Tillfors, P.-O. Everz, I. Marteinsdottir, O. Gefvert & M. Fredrikson, “Social Phobia in the General Population: Prevalence and Sociodemographic Profile”, *Social Psychiatry and Psychiatric Epidemiology*, vol. 34, issue 8 (1999), pp. 416–424.

<sup>2</sup> C. B. Pull, “Current Status of Knowledge on Public-Speaking Anxiety”, *Current Opinion in Psychiatry*, vol. 25, issue 1 (2012), pp. 32–38 (doi:10.1097/ycp.0b013e32834e06dc).

<sup>3</sup> S. G. Hofmann, “Cognitive Mediation of Treatment Change in Socialphobia”, *Journal of Consulting and Clinical Psychology* 72 (2004), pp. 392–399 (doi:10.1037/0022-006X.72.3.392).

ity was a natural fit for this: exposure therapy could effectively be adopted to this new environment: we can simulate the fearful situation in a safe, controlled environment, and due to increasing technological capabilities, we can make it more believable than ever, as it can be seen in Figure 1.

Research into Virtual Reality Exposure Therapies (VRET) for public speaking anxiety began as early as 1999,<sup>4</sup> but the breakthrough started with the research done by Andersen et al.<sup>5</sup> who spent years researching VRET for other types of social anxiety before settling on to public speaking anxiety. Ever since that, there were about 23 papers over 16 years discussing this topic, including several meta-analyses and randomized controlled trials as well.



*Figure 1: A collage of different VR training tools over the ages: DIVE; BeFearless; Virtual Orator; VirtualSpeech*

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<sup>4</sup> Mel Slater, D.-P. Pertaub & Anthony Steed, “Public Speaking in Virtual Reality: Facing an Audience of Avatars”, *IEEE Computer Graphics and Applications*, vol. 19, no. 2 (March-April 1999), pp. 6–9 (doi: 10.1109/38.749116).

<sup>5</sup> P. Anderson, B. O. Rothbaum & L. F. Hodges, “Virtual Reality Exposure in the Treatment of Social Anxiety”, *Cognitive and Behavioral Practice*, vol. 10, issue 3 (2003), pp. 240–247 ([https://doi.org/10.1016/S1077-7229\(03\)80036-6](https://doi.org/10.1016/S1077-7229(03)80036-6)).

Results were initially mixed, however, over the years, as technology improved and more – and better controlled – research saw the light, the effectiveness of VRET was standing firm, in most cases performing on similar levels to regular therapeutic solutions.<sup>6</sup>

As for the question for this paper, I was interested in seeing whether any research was done to take the possibilities of using Virtual Reality in relation to public speaking a step further. Can we use it to not just help people with severe anxiety overcome their fears, but to make people actually better public speakers?

An argument can be made that reducing anxiety can help a significant portion of the population to become better speakers due to the lowered fear they feel while presenting, however, this only goes so far. Especially with the current changes in education – partially because COVID-19 – the usage of Virtual Reality in regular classroom and training settings is more pressing than ever.

For the research, I've gathered and analysed the currently existing literature when it comes to using Virtual Reality in relation to public speaking. The main question was whether there are any papers discussing the effectiveness of VR as a teaching tool, as opposed to be a therapeutic one.

Out of the 25 papers analysed, almost all papers were concerned with reducing anxiety as the main area of their research. There were two studies that stand out in some way: one study, where a portion of the research question was aimed at how effective it is for more- and less anxious subjects, but the main point was still reduction of anxiety levels overall.<sup>7</sup> The second study was even more closely aligned with the educational aspect, as it was a pilot study to see whether virtual rehearsals can be used

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<sup>6</sup> F.-J. Hinojo-Lucena, I. Aznar-Díaz, M.-P. Cáceres-Reche, J.-M. Trujillo-Torres & J.-M. Romero-Rodríguez, “Virtual Reality Treatment for Public Speaking Anxiety in Students: Advancements and Results in Personalized Medicine”, *Journal of Personalized Medicine*, vol. 10, issue 1, 2020 (<https://doi.org/10.3390/jpm10010014>).

<sup>7</sup> S. Stupar-Rutenfrans, L. E. H. Ketelaars & M. S. van Gisbergen, “Beat the Fear of Public Speaking: Mobile 360° Video Virtual Reality Exposure Training in Home Environment Reduces Public Speaking Anxiety”, *Cyberpsychology, Behavior, and Social Networking*, vol. 20, no. 10 (2017), pp. 624–633 (doi: 10.1089/cyber.2017.0174).

to prepare students for their final speech in their Basic Communication Course.<sup>8</sup>

Other than these, there were additional papers that were looking at adjacent topics to public speaking, like language acquisition.<sup>9</sup> These were not added to the sample of papers; however, they can offer meaningful glimpses into whether there is merit to the idea of using VR in creating better speakers.

Overall, the research showed that although there is already some research into adjacent areas to the key question, due to VR becoming more commercially available and immersive due to technological leaps, we are just broadening our horizons when it comes to the potential usage of this technology in educational settings.

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<sup>8</sup> B. N. Frisby, R. Kaufmann, J. I. Vallade, T. K. Frey & J. C. Martin, “Using Virtual Reality for Speech Rehearsals: An Innovative Instructor Approach to Enhance Student Public Speaking Efficacy”, *Basic Communication Course Annual*, vol. 32, issue 1 (2020), pp. 59–78.

<sup>9</sup> S. Y. Chien, G. J. Hwang & M. S. Y. Jong, “Effects of Peer Assessment within the Context of Spherical Video-Based Virtual Reality on EFL Students’ English-Speaking Performance and Learning Perceptions”, *Computers & Education*, vol. 146, article 103751 (2020).

[SEE THE VIDEO](#)

*Dennis Summers*

Strategic Technologies for Art, Globe and Environment

## **The Erotics of Cutting ... and Pasting**

The use of collaged imagery is much more complex than generally assumed. Briefly, within every collage one can identify seams and gaps between components that determine contested meanings within that imagistic psychological space. Additionally, with a little imagination we can extend our perceptual understanding of collage into a range of non-traditional media including the biological. Artist Max Ernst was well known for his collages consisting of scientific pictures of chimeric creatures. It's a short jump from his work to the biological activity called symbiogenesis, and then to new synthetic biology technologies, especially CRISPR. Such CRISPR collages bring us back to Ernst as they allow for the insertion of mediated imagery into living creatures.

1. Art historian Werner Spies writes of artist Max Ernst's "fascination for the microscopic", in works created in 1919. Decades later Ernst created a series of very small gouache paintings on cardboard, many around one inch or smaller, called *Microbes*.

2. The source materials for many of Ernst's collages came from popular science magazines such as *La Nature* published in the late 19th century.

3. As it happens, during the late 19th century the theory of symbiosis was getting a lot of attention. For example in 1867 "Lichens were shown to be 'dual organisms', composites of fungi and

algae ... What biologists had called ‘animal chlorophyl’ in coral ... [and] sponges were ... shown to be algae living inside cells.”<sup>1</sup>

4. One cannot help but think of Ernst’s many chimeric and erotic collages especially during the period of his greatest involvement with surrealism in the 1920s and early 30s. Ernst also created many paintings using decalcomania that contained patterns resembling lichens.

5. One such chimera was Ernst’s artistic alter-ego – a man-bird creature he named Loplop – that appeared in assorted forms throughout his life and oeuvre. But this only underscores the multitude of animal and plant/animal hybrids he portrayed in print collages and paintings.

6–7. As Ernst demonstrates there is a kind of erotics to cutting and pasting. The seamless joins between components can be seen as the join between a man and a woman engaged in sexual intercourse. *Coitus* is derived from the Latin word *coitio* or *coire*, meaning “a coming together or joining together”, and is known under different names for a variety of sexual activities, but usually denotes penile–vaginal penetration. It is not much of a stretch to see the erotics of the new CRISPR synthetic biology technology in this context.

8. The CRISPR system is widely present in bacterial microbes, and used to record a copy of a DNA fragment of an attacking virus into its own DNA. Note that these clones are laid down in chronological sequence thus assembling an ordered archive of historic assaults.

9–10. Bacteria can access that record and create a molecule to cut and destroy the DNA of a viral repeat attack. Consider that the microbe now contains a collage made of copies of alien creatures. Additionally, a more beneficial collage hybrid can be created when: “Phages ... slip their genomes quietly into the bacterial chromosome and coexist benignly, getting copied along with the host DNA.”<sup>2</sup>

11–15. CRISPR as a *human technology* matured around 2012 to take advantage of this DNA specificity to preferentially sever specific locations on chromosomes. Scientists can alter the Cas sequence in order to make specified cuts. With this capacity they can insert – that is “paste” – new synthetically created DNA at the “cut”. Owing to its ease, speed, accuracy, versatility and affordability CRISPR allows for a range of possibil-

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<sup>1</sup> Jan Sapp, “The Symbiotic Self”, *Evolutionary Biology* 43 (2016), pp. 596–603, the quoted passage on p. 597 (<https://doi.org/10.1007/s11692-016-9378-3>).

<sup>2</sup> Rosie Mestel, *Science News*, 4/15/2017, p. 25.

ities difficult to consider previously, including controlled extinction and de-extinction. Such deliberate species manipulations illustrate the human predilection for “sculpting” the natural environment, creatively crafting an assemblage according to aesthetics and desire.

16–18. If, as many cultural theorists have drawn attention to, different technologies are extensions of different parts of the human body, then CRISPR can be seen as an extension of the male sexual organ. We can speak of an erotics of CRISPR. All of these bio-technical reproductive insertions are a kind of cross-species sex. It is sexual, sensual, aesthetic and about desire. As is often the case with the erotic, some people view genetic modifications as perverse.

19. Owing to CRISPR’s ease of use and taking advantage of the chronological ordering of genetic insertions one lab has created a bacteria containing a short movie sequence taken from a Muybridge set of galloping mare photos. Thus literalizing the famous quote from William S. Burroughs: “Image *is* virus.”



# **NEW LEARNING METHODS**



[SEE THE VIDEO](#)

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## **Visual Learning as an Opportunity and Compulsion for Innovation in the Period of Pandemic**

There is a crisis going on. It differs from any other so far; it leans over borders and the regular social and institutional processes and frameworks, which considerably increases insecurity, and we do not know the timeline of the crisis. Education is one of the most sensitive platforms of this crisis process affecting each of us. Education and school show a plastic picture of the turbulence of the conservative past, the crisis-burdened present and the future forced to be innovative.

The situation is well illustrated by the cover page of *The Economist* at the end of June 2020: “The next catastrophe (and how to survive it)”. The current disorder and perplexity probably elicit much greater shock than the theory formed by Ivan Illich on *Deschooling Society*<sup>1</sup> half a century ago. Alienation from traditional education and search for intensely technological alternative ways forced by the pandemic does not probably offer only one-time solutions. However, Alvin Toffler’s *Future Shock*<sup>2</sup> vision is having a more substantial impact than ever before. It is a relevant question to ask what scientific

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<sup>1</sup> New York: Harper & Row, 1971.

<sup>2</sup> Bantam Books, 1970.

thinking can do, and how an interdisciplinary working group with a decade-long history like the Visual Learning Lab, which is an international theoretical laboratory, could analyse consciously the paradigm-changing impact of visual learning.

Scientific perceptions are vital as they can precede their era – and our era has, owing to the current processes, become more and more contradictory. As an example, I refer to a lecture widely known in our VLL circles, which was held by professor Nyíri precisely two decades ago and still bears a serious message:

While the worldwide network of computers contributes to making the closed structures of science more open, it also contributes, even more radically, to the decomposition of the traditional formulae of schooling and education. In our era, the convergence of the various institutions of teaching and research are becoming disintegrated, and natural-organic learning environments are appearing again. The agent of these environments is the world wide web. Let me just refer to higher grade education here. It is an obvious tendency, not only in the USA but now in Hungary as well, that young people having finished secondary school first find a job – or start their enterprise – and continue their studies only later on. It means that studying besides working is becoming the dominant pattern – including studies for the first degree. And new generations, of course, are growing up with the internet, in our country, as well.<sup>3</sup>

These thoughts inspired several of us to examine the factors exerting a paradigm-changing impact on education, and to draw the attention of the professional public to the importance of visual communication, visual learning and images.

The propagation of Digital Pedagogy (DP), and even of Hybrid Pedagogy that combines the critical approach of the former with an up-to-date view, amongst innovative educational endeavours can be considered a perceivable result of the education modernization efforts done during the latest fifteen years. It is undoubtedly connect-

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<sup>3</sup> See [http://www.hunfi.hu/nyiri/OKTK\\_2000.htm](http://www.hunfi.hu/nyiri/OKTK_2000.htm).

ed to the fact that the spread of online activities in the world of labour strongly affects learning as well. It is not only the technological environment, and especially internet usage, owing to which the propagation of online culture can be perceived. Problems (environment, migration, public health care or data safety) are becoming more and more complex; they cannot be successfully managed by applying only one scientific approach. Therefore, we need more complex and open processes. Information flow is accelerating both horizontally and vertically; and using the automatized solutions, the possibility and demand for supposed and real-time synchronicity have become everyday needs. It is why during the latest years, within the frames of the VLL, we have concluded that multidisciplinary, complexity, system approach and openness are essential elements when creating the research background in education development; they are critical factors in the management of several significant or global problems. Although in my lecture I analyze the educational interconnections of the control of the pandemic in the spring of 2020, I refer as an example preceding its era to our innovation endeavour that aimed to increase the role and information transmitting function of images, established by new proportions of text, image and mathematical-model representation, within the frameworks of multimodality, putting all this in a specific innovation framework in a process of constructing what we define as *micro-content*.

Fifteen years ago, the original aim of introducing DP at our university (BME) was to achieve a complex overview of the challenges and opportunities by which pupils and teachers are affected in the information society. Already around 2010, it was perceivable that owing to digital tools and mobile communication, the opportunities of creating an organic learning environment had become realistic, a development that might enforce changes in our pedagogical and education organisational approach. However, this could be conceived only theoretically at that time, as operative options were very partial. Now it is a fact that in our days more and more pupils/students have laptops, and all of them have cell phones. Contrary to the social inequalities in the days of the spread of personal computers and the internet, mobiles are diffused amongst youth “more democratically”.

Thus, the question of what courses supported by interactive solutions and mobile communication tools can be planned at various scenes of life (e.g. cultural institutions, community spaces or workplaces) was a relevant one already a decade ago.

The latest applications of the web, the operating systems offering millions of apps (wikis, blogs, community portals, image, music and video sharing networks, company and communication platforms) have made the educational opportunities hiding in digital tools exploitable. According to surveys analyzing the specificities of mobile communication tool usage, the use of image construction, archiving and sharing as target messages are dynamically increasing. Summarizing these from the aspect of the pedagogical utilisation of images, the following online communication solutions fitting to elaborate content and activities were available already long before the crisis in the spring of 2020:

- Creation of new communication management using icons in learning. Illustrating processes by infographics.
- Collaborative and cooperative learning as an objectification form which is placing pictures into context (both the cognitive and affective moments of this are essential in the process of forming learning communities).
- E-learning based on image representation as the application of remote teaching in the virtual online environment (Cursea, EdX) offers the online possibility of joining the training programs of virtual educational institutions for masses of people.
- Using video blogs in education.

In our days, education development (or crisis management) compelled to innovate more than ever before is still struggling in the diversity of platforms and is fighting “reality” that is not yet ruled by norms and is changing continuously. It should be the subject of another analysis why the opportunities opening up more and more dynamically by way of technological development met, probably depending on the traditional institutional behaviour, rigid bounds in

the case of education organisation for so long. In this paper, it must be stated that in this innovation process, the issue of the limits of closed structures and of innovation connected to traditional space and fixed “time slots” versus open solutions in pedagogy and content development has naturally arisen.

It probably needs careful consideration of what can, after a successful trial, become the essential element of continuous operation (e.g. asynchronous image learning and the usage of related visual community portals). The dynamic strengthening of the role of images warns us that the “steepness” of technology transfer allows rapid reactions; however, the “danger” of brakes and balances, the return to old solutions are closely connected to the human factor, which again makes the renewal of pedagogical approach and the scientific analysis of the interconnections of the present paradigm change so very significant.



[SEE THE VIDEO](#)

*Krisztina Szabó*

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## **The Influencing Factor of the Visual on Reading Performance in the OECD/PISA Reading Literacy Assessments**

In traditional reading literacy surveys, the effects of visual elements on reading performance are out of sight; however, readers must deal both with multimodal texts<sup>1</sup> and visual language.<sup>2</sup> Thus, I claim that a well-prepared reading assessment cannot go without taking into consideration the influencing role of the visual, especially in the case of digital reading surveys. Therefore, the Reading Literacy Assessments of The Organisation for Economic Co-operation and Development's Programme for International Student Assessment

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<sup>1</sup> Zsuzsanna Kondor, *Embedded Thinking: Multimedia and the New Rationality*, Frankfurt/M.: Peter Lang, 2008; Suzette Youngs – Frank Serafini, “Comprehension Strategies for Reading Historical Fiction Picture Books”, *The Reading Teacher*, vol. 65, issue 2 (2011), pp. 115–124; Krisztina Szabó, “Digital Reading and Text Comprehension: Comic Reading as a New Metaphor for Digital Reading”, in Jan Beseda – Zbyněk Machát (eds.), *DisCo 2015: From Analog Education to Digital Education, 10th Conference Reader*, Prague: Centre for Higher Education Studies, 2015, pp. 167–178, [ISBN:978-80-86302-47-8](#).

<sup>2</sup> R. E. Horn, “Information Design: Emergence of a New Profession”, in R. Jacobson (ed.), *Information Design*, Cambridge, MA: The MIT Press, 1999, pp. 15–33.

(OECD/PISA RLA)<sup>3</sup> between 2000–2018 should have considered visual literacy in their framework.

In my video presentation, I will show four concrete examples, both print and electronic, from the OECD/PISA RLA to demonstrate how the surveys dealt with the visual during the years. Two print task examples are from PISA2006<sup>4</sup>: (1) where a picture covered one-third of the page; (2) two blue and grey diagrams with additional illustrative and explicative elements (pictures of animals and some written sentences). The other two are digital examples from PISA2009<sup>5</sup>: (3) a blue and black library map, where the task was to draw a circle according to the instructions; and (4) a comic-book-like discussion, where responders had to choose a link according to the instructions. See the Figure on the next page for four examples.

One can see from these examples that the OECD/PISA RLA applied texts with visual elements, i.e., visual texts that – as the surveys’ analytical and framework documents claimed – can occur independently or embedded in continuous text types and are distinguished from films, tv, animated visuals, or pictures not accompanied by written words.<sup>6</sup> However, every OECD/PISA RLA analytical and framework document, even the digital ones and the latest in 2018 left untouched the topic of the visual: there was no deeper explanation of visual texts, either the importance and influence of visuality in texts and the reading process, about the application and involvement of this knowledge in the surveys or their effects on the assessments’ results.<sup>7</sup> Moreover, there was no discussion of visual literacy or reference to others’ relevant definitions or concepts in the assessments’ framework documents.

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<sup>3</sup> OECD PISA, n. d., <https://www.oecd.org/pisa/>.

<sup>4</sup> OECD, *Assessing Scientific, Reading and Mathematical Literacy: A Framework for PISA 2006*, Paris: OECD Publishing, 2006

<sup>5</sup> OECD, *PISA 2009 Assessment Framework: Key Competencies in Reading, Mathematics and Science*. Paris: OECD Publishing, 2009.

<sup>6</sup> *Ibid.*, p. 20.

<sup>7</sup> OECD, *PISA 2018 Draft Analytical Frameworks May 2016*, Paris: OECD Publishing, 2016, p. 13.



images as well as texts and numbers”<sup>8</sup>. In the age of multimodal literacy, “[o]ne has to possess visual competence in order to read a text (unless it is written in Braille)”<sup>9</sup>, so I hold the claim that a well-prepared reading assessment cannot go without taking into consideration the influencing role of the visual, especially in the case of digital reading surveys. It seems that the OECD/PISA RLA did not fulfil this requirement.

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<sup>8</sup> James Elkins, “Introduction: The Concept of Visual Literacy, and Its Limitations”, in Elkins (ed), *Visual Literacy*, New York: Taylor & Francis, 2009, pp. 1–11, this passage on pp. 4–5.

<sup>9</sup> W. J. T. Mitchell, “Four Fundamental Concepts of Image Science”, in Elkins (ed.), *Visual Literacy*, pp. 11–30, the quoted passage on p. 14.

[SEE THE VIDEO](#)

*Dóra Horváth – Tamás Csordás*  
– *Attila Cosovan – Zita Komár*  
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## **Linguistic Crossovers for Better Understanding of the Quadruple Helix Model of Innovation**

When Aerosmith’s hit song “Walk this Way” was reintroduced by Run-DMC in 2009,<sup>1</sup> it attained unimagined levels of success. It featured the members of Run-DMC dropping verses in-between the classic chorus sung by Steven Tyler. This “*blockbuster crossover appeal – the first almost-hip-hop to tickle the ear of the mainstream rock fan – demonstrably reformatted pop culture*”, said Parker.<sup>2</sup> This one example shows the power of the crossover phenomenon of mixing different genres and cultures. In such a mix one genre contributes to the refreshment, revitalization, reintroduction of the other. It may be very provocative but this is what scientific communication and academic writing cries for, especially in the classroom, and, we are brave enough to suggest, even in scientific conferences. Let’s t(w)alk this way ...

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<sup>1</sup> Cf. [https://youtu.be/4B\\_UYYPb-Gk](https://youtu.be/4B_UYYPb-Gk).

<sup>2</sup> J. Parker, “[How Aerosmith and Run-DMC Begrudgingly Made a Masterpiece](#)”, *The Atlantic*, Feb. 7, 2019.

## Crossover Pedagogy

The idea of crossover has been interpreted in the domain of pedagogy, too. According to Nash<sup>3</sup> crossover pedagogy implies crossing over different roles: where instruction, educators' roles and value creation is in constant change. Educators and students have equal roles in value creation, the ownership of leadership is also in transformation, which results in co-teaching, co-consulting and co-authoring. The present paper is an example of crossover pedagogy where teachers and students also contributed. On the other hand crossover pedagogy is a transdisciplinary cooperation among disciplines, methodologies and approaches as Gröschl and Gabaldon<sup>4</sup> point out.

## Crossover in Science Communication

The phenomenon is not new at all, Raymond Queneau's *Exercises in Style* ([Exercices de style](#)) was first published in 1947. The book starts with an everyday story of an average public transportation situation of waiting for a bus. The book is compiled of this same story rephrased in different styles of speech, e.g. *scientifically*, *frivolously*, *precisely*, *obsessively*, *metaphysically*, *backward*, *alexandrinus*, *sonnet*, which elevates the very boring story into exciting heights.

Transforming a piece of text into different styles allows for a deeper understanding of that content, while the result is fun and accommodating content for anyone. It is a worthy experiment to rephrase an abstract scientific concept like Quadruple Helix into an easy to understand and entertaining form. This way, the scientific concept may become notable not only for the scientific community but to any other stakeholders.

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<sup>3</sup> R. J. Nash, "Crossover Pedagogy: The Collaborative Search for Meaning", *About Campus*, vol. 14, issue 1, 2009. pp. 2–9 (doi:10.1002/abc.277).

<sup>4</sup> S. Gröschl – P. Gabaldon, "Business Schools and the Development of Responsible Leaders: A Proposition of Edgar Morin's Transdisciplinarity", *Journal of Business Ethics*, vol. 153, issue (2018), pp. 185–195.

The original text:

The “Triple Helix” model of knowledge, developed by Etzkowitz and Leydesdorff (2000), stresses three “helices” that intertwine, and by this generate a national innovation system: academia/universities, industry, and state/government. The “Quadruple Helix”, in this context, means to add to the above stated helices a “fourth helix” that is the “media-based and culture-based public”. This fourth helix is associated with the “media”, “creative industries”, “culture”, “values”, “lifestyles”, “art”, and perhaps also the notion of the “creative class”.<sup>5</sup>

In our video, we give an insight into the results of the stylistic exercise that was done with the participation of 32 master students and three educators as an example of crossover pedagogy. We compiled overall 32 style re-compositions, which we refer to as “result of exercises in style”. These are an integral part of the text, as we seek to prove the communicative force of rewording the same idea.

Our experimentation got further on from linguistic styles to crossing over even different languages. If we want to explain it clearly either in an academic manner or in an everyday form we have to do so in a simple manner that even a child would understand. If some of our readers would get closer to the idea of what the notion of the quadruple helix implies, we reached our mission.

One illustration:

This, we may summarize in a multiple language tale initiated by one of our participating students that is told by us, educators and students together in [Project RiConfigure](#) (2019):

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<sup>5</sup> E. G. Carayannis – D. F. Campbell, “‘Mode 3’ and ‘Quadruple Helix’: Toward a 21st Century Fractal Innovation Ecosystem”, *International Journal of Technology Management*, vol. 46, nos. 3–4 (2009), pp. 201–234. The reference is to H. Etzkowitz – L. Leydesdorff, “The Dynamics of Innovation: From National Systems And ‘Mode 2’ to a Triple Helix of University–Industry–Government Relations”, *Research Policy*, vol. 29, issue 2 (2000), pp. 109–123.

*If you go to school you belong to Academia. If Mom goes to work to the Ministry, she works for the Government. If Dad goes to work in the car factory, he is part of the Industry. During the day, everyone belongs to a specific organization. But if you are at home, in the evening or during the weekend, you are all part of the Civil Society and you all play an equal role in innovation and development as any other professional. But if we better think about it, we are all civilians, human beings to start with, who constitute society, and it is our chance and responsibility to create connections and to keep contact among each other.*

[SEE THE VIDEO](#)

*Éva Berde*

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## **Gutenberg and the MOOC: The Uber of Higher Education**

### **Short Picture of our Topic**

Since the launch of eBay in 1995, many other successful platforms started in many other areas of the economy, which offer traditional services in a non-traditional way. See for example hotel services, restaurant table reservation, taxi services, intra-group communication etc. These new, non-traditional models can flourish due to fast communication via commercial internet. The new methods have arrived in the education system as well. The so-called Massive Open Online Education (MOOC) has appeared in tertiary education.

A First realization of MOOC was an online cMOOC course of Manitoba University (Canada), which offered education on connectivism and connective knowledge. This course was attended by 25 students in a traditional way (paying fees and acquiring credits) and by 2200 “non-traditional” students (attending free of charge and not acquiring credits) from all over the world. According to the definition of cMOOC, an online platform existed that connected the participants – lecturers and students who had the same rights – and made it possible to discuss problems and learn together.

Some universities have been offering online courses since 2008 – actually, before 2008 as well – permanently, but these courses were small before 2011. In 2011, Stanford University launched three online courses free of charge: databases, machine learning and artificial intelligence. More than 100 thousand students applied for these three courses from all over the world. The courses included video lectures by famous professors and exercises, automatically evaluated by machines – this created the so-called xMOOC. At the end of the courses students were able to get certificate of achievement based on their mid-course tests, and their final test, that was also evaluated automatically. The only downside of the courses was that the proportion of students who achieved a certificate was below 20%. The great initial successes gave launching other MOOCs a boost, and so the development of MOOCs since 2012 has been very quick. Since 2017, bachelor and master degrees as well as micro credentials can also be achieved via MOOC courses. Micro credentials are mini qualifications that can be collected in a pre-defined way or can be matched with traditional courses, and so grant a bachelor or master degree. These degree-granting courses are not free of charge – in contrast to the original MOOCs – although the tuition fee is in most cases smaller than 10% of the fee of the traditional on-campus courses. Many of these courses can be attended via audit participation with restricted rights (shorter time, exclusion from exercises etc.) and without receiving a diploma. Non-degree MOOC courses also seek to include items subject to charges, although they still offer more free of charge opportunities.

The launch of MOOC courses was accepted with great enthusiasm by the creators and by the potential students as well. The initial economic and ethical attitude was possibly characterized by the so-called blue ocean theory, but today we have to note significant differences. The blue ocean theory – the terminology emerges from marketing – suggests that new market participants, instead of dealing with saturated markets, find such undiscovered market niches where new customers can be obtained. From an ethical point of view, blue ocean refers to persons who have not been able to participate in education, and whose participation can foster human development.

We argue in this summary that the economic aspect of the blue ocean theory was realized in a different way from that originally stated, and hardly ever embodied an ethical point of view. Still, MOOC is clearly a part – moreover, an increasing part – of the higher education system. Christensen et al.<sup>1</sup> argue for the MOOCs’ disruptive innovative function in higher education. They believe that the traditional university model is obsolete, and its collapse is unavoidable. The financial sustainability of the old model cannot be granted any more, the only question is who will introduce the innovative model of the MOOC: the traditional universities or some aggressive outsiders. The result will be the same: higher education will change significantly.

Whether we disagree or agree with the statement of Christensen et al., the significant spreading of MOOC education is beyond question. It is interesting to estimate the welfare effect of MOOCs and compare it to the welfare effect of Gutenberg’s book printing.

## Conclusions

MOOC is an internet-based, dynamically developing education method that is used mainly in tertiary education. Although it has not been able to conquer those parts of the world where it was absolutely impossible earlier to participate in tertiary education, in the future this could change.

Collecting and synthesizing MOOC facts is hard despite the fact that MOOCs are in the online space and the platforms collect all the important data. The most serious hardship in collecting data is the absence of robust statistical systems and statistical reporting requirements.

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<sup>1</sup> Clayton M. Christensen, Michael B. Horn, Louis Caldera, and Louis Soares, “Disrupting College: How Disruptive Innovation Can Deliver Quality and Affordability to Postsecondary Education”, *Innosight Institute*, Center for American Progress, 2011.

The welfare effect of MOOCs can be likened to the welfare effect of Gutenberg's printing press, although the quantitative results are not robust and reliable due. It is certain that MOOC universities offer bachelor and master degrees much cheaper than traditional, brick and mortar universities. On the other hand, MOOC has some problems, especially in the case of a first degree: despite the existence of online forums, it cannot grant the evolution of social networks that are created at traditional universities. Such a network requires the physical presence of the students.

MOOC is a good example of Christensen's disruptive innovation: those universities which stay out, miss out, and they will suffer disadvantages in the competition. And of course it will be necessary to evaluate the Hungarian situation: how should the traditional and the MOOC education relate to each other.

[SEE THE VIDEO](#)

*Karl Heuer – Deniz Sarikaya*

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## **Picturing the Undrawable: Visualization of Infinities in Mathematics Education and Set Theoretic Practice**

Visualization plays an important role in mathematical practice, which finds more and more focus within philosophy, see f.i. the work by De Toffoli & Giardino<sup>1</sup> or Friedmann.<sup>2</sup> One aspect of our talk will offer a case study of the visualization of transfinite ordinals. As Löwe already observed<sup>3</sup> in the context of the visualization of ordinals (and mathematics in general) the visual aspect has a temporal aspect as well (as pointed out by Pais<sup>4</sup>). Loewe also suggests that there is an additional verbal element that allows these changing diagrams to convey meaning.

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<sup>1</sup> S. De Toffoli – V. Giardino, “Roles and Forms of Diagrams in Knot Theory”, *Erkenntnis*, vol. 79, issue 3 (2014), pp. 829–842.

<sup>2</sup> M. Friedman, “Mathematical Formalization and Diagrammatic Reasoning: The Case Study of the Braid Group between 1925 and 1950”, *British Journal for the History of Mathematics*, vol. 34, issue (2019), pp. 43–59.

<sup>3</sup> B. Löwe, “Visualization of Ordinals”, in Thomas Müller – Albert Newen (eds.), *Logik, Begriffe, Prinzipien des Handelns*, Paderborn: Mentis Verlag, 2007, pp. 64–80.

<sup>4</sup> J. Pais, “Intuiting Mathematical Objects Using Diagrams and Kinetigrams”, *Journal of Online Mathematics and its Applications* 1 (2001).

This is of interest as mathematicians often work with infinite structures. There is a correspondence between Weyl and Becker, see hereto: Mancosu.<sup>5</sup> The question of transfiniteness was directly problematized as:

Intentions which are in principle unfulfilable may well be completely consistent. Actual existence – in the ontological sense – requires phenomenal givenness, “access”. After all, ultimately only phenomena “exist”.<sup>6</sup>

But on the other hand:

It is clear that in an actual drawing only a finite (and indeed a very small) number of pictures can be nested into each other... But it is nevertheless the case that the first nestings make the infinite process evident according to its pure ideal possibility. This “ideal” infinite complication of picture nestings is represented symbolically in one of the described figures.<sup>7</sup>

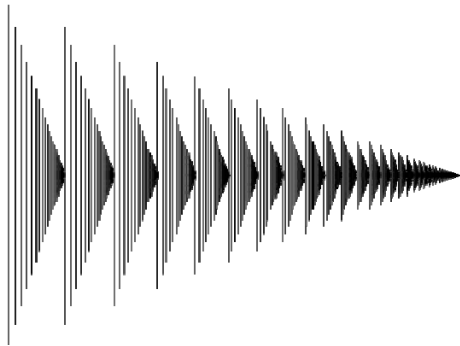
There is some choice involved in these visualizations. To give an example: are the following two diagrammatic symbolizations of  $\omega^2$  different? Which captures better our intuitions? The second version contains very explicitly a symbolic component. The first picture makes this implicit. The general idea of the first picture is that each ordinal is denoted by a stick. Furthermore, the distances between the sticks are halved while the lengths of them converge monotonously to zero. Then each limit ordinal is as high as the successor of the limit ordinal before it. By arguing f.e. with the geometric series, we know we can visualize such a picture in a finite area. Here the nearly dense looking areas are somehow similar to the three dots standing for an ellipsis.

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<sup>5</sup> P. Mancosu, *The Adventure of Reason: Interplay Between Philosophy of Mathematics and Mathematical Logic, 1900–1940*, Oxford: Oxford University Press, 2010.

<sup>6</sup> O. Becker, “Mathematische Existenz”, *Jahrbuch für Philosophie und phänomenologische Forschung* 8 (1927), pp. 439–809.

<sup>7</sup> *Ibid.*



$$\begin{aligned}
 1 &= x \\
 2 &= x x \\
 \omega &= x x x \dots \\
 \omega + 1 &= x x x \dots x \\
 \omega \cdot 2 &= x x x \dots x x x \dots \\
 \omega \cdot 2 + 1 &= x x x \dots x x x \dots x \\
 \omega^2 &= x x x \dots x x x \dots \dots \\
 \omega^2 + 1 &= x x x \dots x x x \dots \dots x
 \end{aligned}$$

*Based on David Alexander Madore's Ordinal ww.svg (CC BY-SA 4.0, via Wikimedia Commons).*

A third visualization would be an  $\mathbb{N}$  times  $\mathbb{N}$ -grid. Where we identify each column as a copy of the natural numbers and define an ordering in a lexicographic way.

All in all, such visual components are part of conducting mathematical research and of communicating about it on a high level between researchers. However, they do not appear very often in written documentation of the content such as f.e. journal articles, despite their importance for the development of intuitions within mathematics.



[SEE THE VIDEO](#)

*Karl Heuer – Deniz Sarikaya*

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## **Tilings as an Open Problem Field for Mathematically Gifted Children**

In this talk we want to give some ideas how to develop an open problem field for gifted students within enrichment programs for high-school students. We give an in-depth look at what students might ask about tilings.

The first question that arises is what we mean by an open problem area. We're not trying to give a definition. It is important that the pupils can go on a search for discovery, think about their own follow-up problems, reflect on solutions, but also – and this is particularly important if we want to promote mathematically gifted pupils in the class – can make excursions according to their talents and interests, which are either deeper mathematical or go into society / art or culture. Additionally, to teaching mathematical content and methods, we want to:

1. Increase the students' tolerance for frustration and / or encourage ongoing self-motivated learning.
2. Strengthening skills in communicating mathematical content.
3. (Optional) process the contents of the curriculum.
4. Show excursions in science, art, culture and everyday life.

5. (Optional) aim for a concrete output, e.g. research work or exhibitions of built models.

Working with mathematically gifted youth can be daunting, even for an experienced teacher. Mathematical talent is often associated with the nimbus of the unassailable genius. Even a gifted person must first learn and cannot create knowledge on an ad-hoc basis. In this case, working in open task areas is even beneficial for the teacher. On the one hand, the communicative point of view is crucial. It's not just about knowing the correct answer, but also being able to communicate it to classmates. The request to do this in an understandable way gives the teacher time to understand and classify the contributions himself. Furthermore, in an open question, it can and should be clear that we might try and follow arguments that nobody has used before (we shall see how quickly we can get to open research questions). This reverses the classic understanding of teachers; they become companions.

An open problem field starts with an accessible initial question. In our example we study tilings of the plane by using only one type of tiles of a certain figure. First, we focus on regular  $n$ -gons as our figures and ask:

(P1) With which regular  $n$ -gon can the plane be tiled?

From this we start varying the question by allowing several types and arrive at:

(P2) With which regular  $n$ -gons can the plane be tiled?

In principle, this slight generalization of (P1) can be created by only performing syntactical changes to (P1). This will of course have to be supplemented by purely associative connections. Alternative changes would be to drop conditions. In a strict sense, these are again generalizations: the fewer requirements we have, the greater the range of validity of our statement. The following, now rather vague question might therefore allow for excursions into artistic aspects.

(P3) With which figures can the plane be tiled?

Alternatively, we can also change the area to be tiled. Then we get questions of the form:

- (P<sub>n</sub>) With which ... can a given rectangle be tiled?
- (P<sub>n</sub> + 1) With which ... can a circle be tiled?
- (P<sub>n</sub> + 2) With which ... can the 3D-space be “tiled”?

With P<sub>n</sub> we could use all variants from P<sub>1</sub> to P<sub>4</sub>. In principle, this also applies to P<sub>n</sub> + 1, whereby we will quickly see that, due to the curvature of the circular disk, there is no tiling with n-corners. With the change in dimension, P<sub>n</sub> + 2 shows a classic generalization direction. However, it is not entirely clear what the multi-dimensional analogue of tiling should be. Without adapting the concept of tiling, there seems to be a category error with P<sub>n</sub> + 2, since we want to fill the three-dimensional space with something two-dimensional. On the other hand, we could ask which three-dimensional figures are bounded by n-gons. This brings us to the questions:

- (P<sub>m</sub>) Which platonic solids exist? (These are solids bounded by one type of regular n-gon.)
- (P<sub>m</sub> + 1) Which Archimedean solids are there? (Here we allow further types of n-gons.)

These solids now also form building blocks with which we could fill the space without gaps. So, we can specify P<sub>n</sub> + 2 in the following sense:

- (P<sub>m</sub> + 2) With which Archimedean solids can the space be filled without overlap?
- (P<sub>m</sub> + 3) With which solids can the space be completely filled?

Starting from P<sub>n</sub> + 1 and P<sub>m</sub> + 3, the question arises: How well can you fill the space with spheres? Obviously, this will not be complete, but it does lead to a question in current research. Furthermore, by introducing the notion of “periodicity”, we can head towards questions whether so called Penrose Tilings exist.



[SEE THE VIDEO](#)

*Amirouche Moktefi*  
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## **Phenomenology of Diagrams**

The idea that diagrams may be viewed as technical artefacts opens the way to a research programme where the philosophy of technology is employed for the study of diagrams. In this direction, we propose a phenomenology of diagrams that is inspired by recent work in the so-called postphenomenology of technology. This approach was introduced by Don Ihde who investigated relations between humans and technical artefacts and how the latter contribute to the shaping of our relations to the world. Ihde identified basic forms of mediation, depending on how the artefact unites with the subject or the object of perception. For instance, when it unites with the human, we obtain an embodiment relation, in which we experience the world through the instrument: “(Human – Instrument) → World”. Such a relation occurs, for instance, when we wear glasses that shape our vision of the world, though one does not need to interpret vision here literally. It may be, however, that the instrument unites with the world and thus produces a hermeneutic relation: “Human → (Instrument – World)”. In this case, we perceive and interpret the instrument to experience the world. A typical example is a watch that one needs to interpret to access the time of the day. Although other relations exist, embodiment and hermeneutic relations suffice for our purpose.

A look at diagram literature shows that, throughout traditions, we relate to diagrams mainly in two ways: either we reason with dia-

grams as instruments or we reason on (or about) them as objects. Let us consider what phenomenology may teach us about these relations, using the framework: “Human – Diagram – World”. A first difficulty consists in apprehending the World that is conveyed in our outline. Whether such a world really exists or not is not essential for our purpose and one may simply postulate an instrumental realism in the sense that it is the instrument that makes that world perceptible to us. Now, a brief review of our relations suggests that reasoning-with-diagrams produces an embodiment relation while reasoning-on-diagrams involves a hermeneutic relation. Indeed, when we reason with diagrams, we use imagination to manipulate the world (a territory, for instance) through a diagram that depicts it (a map). We observe a relation of the form: “(Human – Diagram)  $\rightarrow$  World”. But when we reason on diagrams, the latter are the object of the manipulation in accordance with formal rules to produce further diagrams that depict new worlds. Hence, the diagram unites with the world to produce a relation of the form: “Human  $\rightarrow$  (Diagram – World)”.

These relations are not static. For instance, we may move from an embodiment to a hermeneutic relation when we distance ourselves from our instruments and make them the object of our attention. This is the case when we remove our glasses to clean them. A similar shift occurs when one constructs formal diagrammatic systems out of existing diagrams to ensure rigor. On the other hand, the embodiment of technologies is commonly achieved through an increase of transparency. For instance, vision technologies have progressively been incorporated through history, evolving from a magnifying glass (that is part of the world) to an incorporated lens (that is part of the human). Similarly, familiarity with a diagrammatic system leads to the dismissal of rules since one acquires the skill to read information from complex figures and, hence, does not need to make formal derivations anymore.

The phenomenology of diagrams shows that when we manipulate diagrams, we establish relations that may involve an embodiment or be hermeneutic. In practice, we observe an interplay between

a search for transparency and a search for distance in our diagrammatic practices. As such, we aim for a balance that is context-dependent and reflects the inherently practical nature of diagrams.



[SEE THE VIDEO](#)

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## **The Productive Ambiguity of Venn’s Three Circles**

It is not rare to meet in scientific literature with a figure made of three circles, intersecting in such a way as to delineate all the combinations of the components that they stand for. This figure is commonly known as a “Venn diagram” or “Venn’s three circles”. The name refers to John Venn, the logician who popularized them. An instance of this figure can be seen at Gonville and Caius, Venn’s College at Cambridge, on a stained-glass window dedicated to him (Figure 1). Yet, Venn diagrams did not originate in Venn’s work. Indeed, they occasionally appeared in earlier literature. Such a figure can be seen, for instance, in Robert Fludd’s famous depiction of the mind in 1619 (Figure 2). Another similar pre-Venn figure was used in the 1820s by Arthur Schopenhauer in his logic *Lectures* to illustrate the development of concepts (Figure 3). It depicts three circles: Green (*grün*), tree (*Baum*), and flower-bearing (*blüthetragend*).

Although subtle variations may be found in the design and usage of these examples, and many more that may be given, they do share the fact that the three circles intersect in such a way as to convey every combination of the concepts involved in each example. Since the topological relations of the circles reflect logical relations among the concepts, it follows that the intersection of the three circles contains objects that belong to the three concepts at once.

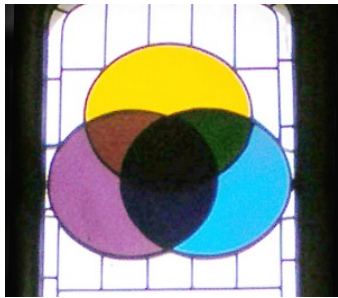


Figure 1. Source: Wikipedia

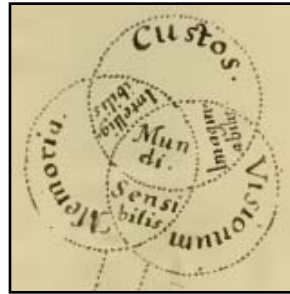


Figure 2. Source: Utriusque Cosmi Historia, p. 21.

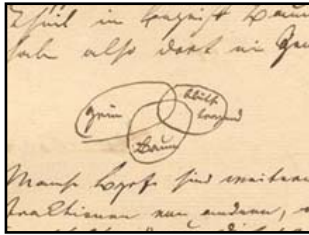


Figure 3. Source: Schopenhauer papers.

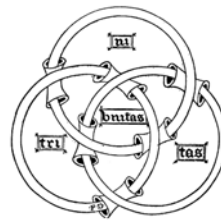


Figure 4. Source: A.N. Didron, Christian Iconography.

Interestingly, however, many so-called Venn diagrams found in modern scientific literature do not *truly* depict intersections, and hence, are not *true* Venn diagrams. Indeed, although geometrical figures are similar, many modern representations merely depict a coordination between three factors (the circles) to yield a joint outcome (the joint area). We may, for instance, be told that the alliance of a costumer, a producer, and a supplier (*i.e.* the circles) is needed to make a good product (the joint area). But such a product *does not* belong to any of the three concepts, since it is neither a customer, nor a producer nor a supplier. Hence, in these *false* Venn diagrams, it is not the intersection but rather the coordination of the concepts that is conveyed. This is different from *true* Venn diagrams. For instance, in Schopenhauer's figure, whatever *is* in the intersection of the three

circles, *belongs* to the three concepts at once: green, flower-bearing and tree, and thus is a green flower-bearing tree.

*False* Venn diagrams resemble another mathematical structure known as the Borromean rings. These figures enjoyed some popularity in Christian iconography. The idea was to depict the three elements of the Trinity with circles, then “to mark the indissoluble union in which those three persons are linked together, the three circles are intertwined, one within the other, in such a manner that one could not be severed or removed without at the same time severing all the three“ (A.N. Didron, *Christian Iconography*, vol. 2, 1891, p. 46). Accordingly, one gets images such as Figure 4 which appeared in a 13th century French miniature. Such rings do not formally intersect, as *true* Venn circles do, to produce a joint area. They are rather tangled, as *false* Venn circles are, in such a way as to express their strong connection to produce the desired outcome.

The ambiguity of Venn’s three circles, as to how they ought to be interpreted, may seem to support sceptics who object to the use of diagrams in reasoning or formalists who demand formal definitions and manipulations to enable rigorous reasoning. However, one may as well endorse a practical view in which ambiguity is seen as productive in that it opens the way to new interpretations and fosters imagination. In this view, diagrams are not neutral objects but rather instruments that behave within a set of shared practices.



[SEE THE VIDEO](#)

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## **Generous Interfaces Revisited** **Examples of Designing Visual Structures** **for Digital Archives**

Over the past decades, many GLAM institutions have digitized numerous archival documents and made them partly accessible online. Occasionally, flexible forms of sharing of information and imparting of knowledge have been developed by means of visualization methods and “generous interfaces”<sup>1</sup>. However, there is still a lack of user-friendly and easily accessible interfaces for users with various backgrounds, especially for collections based on text sources. In the research project “Digitization and Visualization of Archives and Collections” (DigiVis)<sup>2</sup>, corresponding strategies and principles have been further developed and illustrated in various contexts of application. Scientific archives create a great opportunity to examine

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<sup>1</sup> Mitchell Whitelaw, “Generous Interfaces for Digital Cultural Collections”, *dhq*, vol. 9, no. 1 (2015),

<http://www.digitalhumanities.org/dhq/vol/9/1/000205/000205.html>.

<sup>2</sup> “Digitization and Visualization of Archives and Collections” funded as a Lighthouse-project in the Field of Digitization by the Tyrolean Regional Government, Austria (see [https://dbis-digivis.uibk.ac.at/portal/portal\\_evg.html?lg=de](https://dbis-digivis.uibk.ac.at/portal/portal_evg.html?lg=de)).

and visualize discourses and argumentations in order to explore the discursive structures that construct the world we are living in.

In the DigiVis-project, the Ernst-von-Glasersfeld-Archive – which is located in the Brenner Archive in Innsbruck (Austria) and contains written as well as visual sources – served as a basis for a digital archival environment for searching, browsing and learning. Over decades, Ernst von Glasersfeld published papers and books on the theory of Radical Constructivism and his work has definitely shaped the discourse on how the world is perceived and how knowledge is created. At the same time, his theories have led to a number of criticisms and counter-arguments, which play an important role in the discourse community. Inspired by Klaus Krippendorff's<sup>3</sup> take on discourses and discourse communities and by Siegfried Jäger's<sup>4</sup> methodological concept that a discourse strand consists of discourse fragments on the same topic, the project team worked on visualization strategies that come close to this metaphor. Three main principles have accompanied the argumentation and discourse mapping:

1) Everything in the visualization is related to each other: Just like intertwined strands, every element of the visualization is connected to other elements (see Figure 1).

2) The visualization creates “access points” to the original texts: Visualizations of textual material should help to facilitate access to the original material. Studies have shown that humanities researchers prefer the visualizations and the original texts side by side in order to gain new insights to the material while taking into account the manipulations of the visualization (see Figure 2).

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<sup>3</sup> Klaus Krippendorff, “Why Discourses in Action?”, in *Discourses in Action*, ed. Klaus Krippendorff and Nour Halabi, *Shaping Inquiry in Culture: Communication and Media Studies* (London – New York: Routledge, 2020), pp. 13–72.

<sup>4</sup> Siegfried Jäger, *Kritische Diskursanalyse: Eine Einführung*, Münster: Unrast-Verlag, 2009.

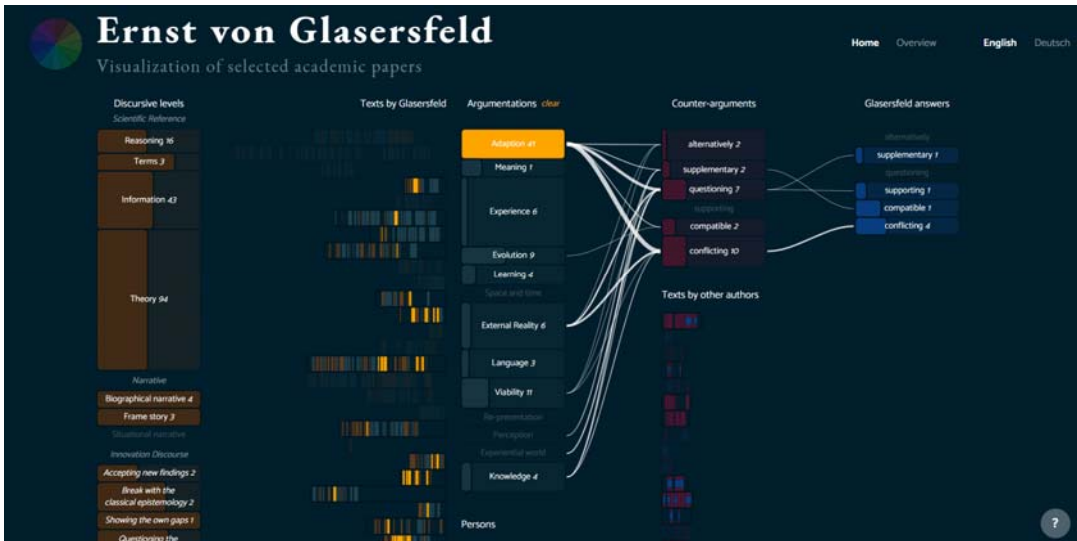


Figure 1: Visualization of selected academic papers of Ernst von Glasersfeld. Everything is connected with each other, see: [https://dbis-digivis.uibk.ac.at/portal/portal\\_evg\\_sub.html?lg=de&page=7](https://dbis-digivis.uibk.ac.at/portal/portal_evg_sub.html?lg=de&page=7).



Figure 2: The original text can be accessed within the visualization. See: [https://dbis-digivis.uibk.ac.at/portal/portal\\_evg\\_sub.html?lg=de&page=7](https://dbis-digivis.uibk.ac.at/portal/portal_evg_sub.html?lg=de&page=7).

3) Simplicity over complexity: The user's needs in mind, we have chosen simplicity over complexity. One way to make sure that the visualization does not get too complex is that there is always only one selection per dimension possible.

Since the opening of archives to a wider public, the question of how to introduce interested people to the collection has always been an important task. Collections do not tell stories themselves but they do contain stories that can be uncovered. In the DigiVis project, we tried to design a learning environment that enables users to find several entry points to these stories. In order to address different user groups, didactical concepts and materials have been developed, in order to allow for different approaches to the archive. In doing so, various points of contact for different target audiences have been created that can accompany them further and further into the archive, until finally an independent source work is supported. During that exploration of the archival content the users should be able to move as freely as possible to follow their own interests while being able to orientate themselves in the collection. Therefore, the digitization of archival materials is more than just a shift in its mediality. It also allows for new perspectives on structures and topics of a collection (cf. Figure 3).

The original sources are always clearly at the center of the archive environment. They determine the way the visualization is done, as well as the design of the learning environment and the further processing of the content. As for didactical approaches, concepts and applications of explainer videos, games and archival "cakewalks" have been created for different user groups. The game *Viablory* (cf. Figure 4), for example, allows a playful way to experience the meaning of *viability*, one of the key concepts of Glasersfeld's theory, and it is also a concept that can be experienced in various situations.



Figure 3: Screenshot of the starting page shows the diverse access points to Glasersfeld's digitized estate.<sup>5</sup>

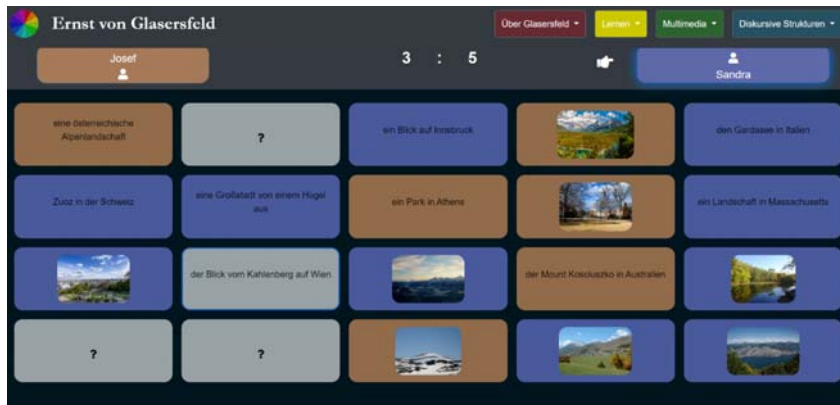


Figure 4: Understanding the concept of viability through a visual game. See: [https://dbis-digivis.uibk.ac.at/portal/portal\\_evg\\_sub.html?lg=de&page=2](https://dbis-digivis.uibk.ac.at/portal/portal_evg_sub.html?lg=de&page=2).

<sup>5</sup> The blue bar *Discursive Structures* allows experienced users to explore the textual sources (academic papers). Under *Multimedia*, the visual sources (videos and images) can be explored through different visualizations. The yellow bar named *Learning* is thought to address students or interested people who want to discover Glasersfeld's theories through playing learning games. In the red bar *About Glasersfeld*, users can find multimedia material introducing Glasersfeld and his theories by means of videos or an interactive timeline. See [https://dbis-digivis.uibk.ac.at/portal/portal\\_evg.html?lg=en](https://dbis-digivis.uibk.ac.at/portal/portal_evg.html?lg=en).

The contribution provides a conceptual outline and a selection of examples regarding discourse mapping, the analysis of argumentative structures and networks as well as didactical examples. In doing so, conceptual backgrounds, educational material and design principles are outlined. Finally, critical considerations concerning limitations of the approaches and the power of different forms of visualization are put up for discussion.





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This online volume contains the papers prepared for the 9TH BUDAPEST VISUAL LEARNING CONFERENCE – HOW IMAGES BEHAVE, held online on Nov. 26, 2020, organized by the Department of Technical Education, Budapest University of Technology and Economics, by Corvinus University of Budapest, and by the Committee for Communication and Media Theory of the Hungarian Academy of Sciences (HAS). For the past ten years, the Budapest Visual Learning Conference Series has striven to make happen what should have happened long ago: a radical iconic turn. We were working against the tide. The 9TH BUDAPEST VISUAL LEARNING CONFERENCE was a breakthrough event. It is hoped to have an immediate continuation: the participants, with access to each other, should continue to communicate with each other and with the organizers of the series, recounting how their research progresses; we hope the participants to become a virtual research group, a very real virtual research community, a community that will change the tide.

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