Text-to-image technologies.

The Aesthetic implications of AI-generated images.

Lorenzo Manera

Lorenzo.manera@unimore.it

Synthography, a term that describes images generated by Text-to-Image (TTI) technologies such as DALL·E, Midjourney, and Stable Diffusion, enables the creation of images generated through software that involve linguistic prompts. Such prompts are processed by encoded semantic systems, able to capture compositional aspects of arbitrary language text inputs. By drawing on the emerging aesthetic theories on AI-generated images, this contribution aims at discussing the European AI-Act, published in March 2024.

Firstly, it analyzes the Act's perspective on synthographies, highlighting how it interprets generative AI within the paradigm of copying and technical reproducibility. Secondly, the paper discusses the regulatory challenges posed by AI-generated content, which blurs the line between original works and replicas, raising concerns about copyright and the authenticity of creative outputs. Third, the study explores the Act's paragraph regarding AI systems that produce content resembling existing images, as it concerns the testimonial value of images. Finally, this contribution examines the possible contribution offered by AI-generated images in the field of the visual art.

Text-to-image technologies.

The Aesthetic implications of AI-generated images.

Lorenzo Manera

Lorenzo.manera@unimore.it

1. Introduction

With the advent of advanced AI technologies, the process of image creation is undergoing a profound transformation, raising debates over the influence traditional notions of authorship, creativity, and the documental value of images. The launch of DALL·E by OpenAI in January 2021 marked a significant milestone, allowing users to create images from textual descriptions. This capability has sparked extensive debate and reflection on the nature of these new forms of imagery and their place within the broader context of art and aesthetics.

In the Artificial Intelligence field, technical and ethical aspects of Text-to-Image methods, like, e.g., Midjourney, or Stable Diffusion, have been under discussion for a long time. While Midjourney is a proprietary platform, DALL·E, and Stable Diffusion represent the currently most popular Text-to-Image paradigms[1]. DALL-E is an Auto-regressive neural network where the generated image is split into a sequence of patches and generated sequentially. On the one hand, current Text-to-Image research focuses on improving image quality[2] or speed-up the generation process[3], as well as discussing ethical problems related to privacy issues[4], the violation of copyright and the generation of inappropriate content[5]. An aspect discussed in the AI field that implies consequences for the concept of authoriality, is the fact that with the mentioned models the user may condition the

---

[1] A. Ramesh et al., *Hierarchical text-conditional image generation with CLIP latents*, arXiv, 2022.
[2] P. Esser et al., *Scaling Rectified Flow Transformers for High-Resolution Image Synthesis,* arXiv, 2024.
[3] T. Yin et al., *One-step diffusion with distribution matching distillation*, CVPR, 2024.
[4] A. Golatkar et al., *Mixed Differential Privacy in Computer Vision*, CVPR 2022.
[5] P. Schramowski et al., *Safe Latent Diffusion: Mitigating Inappropriate Degeneration in Diffusion Models*, CVPR 2023.

generation process using a textual description of the desired content ("textual prompt"). On the other hand, Stable Diffusion is a Diffusion Model[6]. In such models, the whole patch sequence is generated in parallel, starting from completely noisy patches and progressively "denoising" their content. According to D'Isa[7], platforms such as Midjourney, Stable Diffusion, Photoshop Firefly and customized machine learning models are frequently utilized for artistic purposes. When it comes to commercial art, illustration, stock photos, and graphic design, Midjourney and Stable Diffusion are still preferred, alongside Photoshop Firefly and DALL-E 3. These tools are popular for their versatility and reliability in producing high-quality commercial images. On the other end of the spectrum, platforms like Meta, Imagen, and Photoshop Firefly are commonly used for generating memes, spam, and stock images.   In the field of Aesthetics, the contemporary debate discusses the hypothesis that synthographies (AI-generated images) represent a new frontier in the visual arts, as they transpose the image-creation process from the analog arts to the notational ones, creating a possible new artistic field within the category of artificial intelligence art (AI art)[8]. Secondly, the discussion regards whether AI-generated images imply a radical linguistic transformation in the visual arts, causing an epistemological shift[9], which reconfigures the word-image relationship[10]. Thirdly, such a debate explores how TTI how have been applied within visual culture at large, and how it affects aesthetic and epistemological issues[11]. These aesthetic aspects intersect the issues raised by the Artificial Intelligence Act, recently released by European Union on object of the following paragraphs.

1. Are synthographies copies of digital images? Aesthetic aspects involved in the Artificial Intelligence Act

---

[6] J. Ho et al., *Denoising Diffusion Probabilistic Models*, NeurIPS, 2020

[7] F. D'Isa, *La rivoluzione algoritmica delle immagini. Arte e intelligenza artificiale*, Sossella editore, 2024.

[8] E. Arielli, L. Manovich, *AI-aesthetics and the Anthropocentric Myth of Creativity*, in "Nodes Journal of Art and Neuroscience", 19 (1), 2022.

[9] See J. D. Bolter, *AI Generative Art as Algorithmic Remediation*, in "IMAGE. Zeitschrift für interdisziplinäre Bildwissenschaft", Jg. http://dx.doi.org/10.25969/mediarep/22321 19 (2023), Nr. 1, pp. 195-207.

[10] H. Bajohr (2024), *Operative ekphrasis: The collapse of the text/image distinction in multimodal AI*, in "Word & Image", 40(2), 2024, pp. 77-90.

[11] A. Somaini, *Algorithmic Images: Artificial Intelligence and Visual Culture* in "Grey Room", (93), 2023 pp. 74-115.

On March 13th, the European Parliament adopted a legislative resolution on the proposal for a regulation aimed at establishing harmonized rules on Artificial Intelligence, known as the Artificial Intelligence Act. In the European Parliament's proposal for the Artificial Intelligence Act, the concept of creativity is addressed with a focus on balancing innovation with regulation. The Act, on the one hand, has established a unified definition for foundation models, which are now referred to as «General Purpose AI Models» (GPAI models), and recognizes the potential of AI to foster creativity across various fields, including art, culture, and media. On the other end, it interprets the deployment of large generative models as a tool that risks undermining human creativity:

> General-purpose models, in particular large generative models, capable of generating text, images, and other content, present unique innovation opportunities but also challenges to artists, authors, and other creators and the way their creative content is created, distributed, used and consumed. The development and training of such models require access to vast amounts of text, images, videos, and other data. Text and data mining techniques may be used extensively in this context for the retrieval and analysis of such content, which may be protected by copyright and related rights. Any use of copyright protected content requires the authorization of the rightsholder concerned unless relevant copyright exceptions and limitations apply.[12]

The underlying idea is that the users of general-purpose models that produce data exhibiting various degrees of similarity to their training datasets somehow produce a replica. Such models should be approached by elucidating their origins, sources, and the datasets used in their development.

As underlined by Chatonsky and Somaini[13], who commented on the provisional agreement on the Artificial Intelligence Act, they argued that, on the one hand, such a perspective interprets generative AI within the paradigm of copying and technical reproducibility. Instead, AI-generated images are not gaze- and imitation-based duplicates or technical replicas of an original whose essential formal elements are communicated by

---

[12] European Parliament, *Artificial Intelligence Act*, 105. https://www.europarl.europa.eu/doceo/document/TA-9-2024-0138_EN.pdf
[13] G. Chatonsky, A.Somaini, *Sortir du paradigme de la copie*, Numérique, 2024.

default. They are the assembly of bits and pieces of previously created images. On the other hand, it is based on a particular conception of human creativity as capable of breaking the chains of causality and introducing the expression of its freedom into the world, which alone is capable of producing something that is not reducible to its causes. AI-generated images are in no way replicas, reproductions, collages, remixes, mash-ups, photorealistic, or even similar to previously created images. They are not gaze-and imitation-based duplicates, nor are they technical replicas of an original whose essential formal elements are communicated by default, nor are they the assembly of bits and pieces of previously created images.

The argument of the authors is that, compared to both digital of images, the process of generating synthographyes is different in as much as it requires the digitization of both images and texts. By making them interoperable to create visuals, texts, images must be digitally converted to enable interoperability, allowing for the identical treatment of various texts and images. Therefore, General-purpose models replace images and words with vectors that undergo statistical computations. A point within this latent space is visualized when an image is generated. This space is essentially invisible and imperceptible, and it has the potential to hold an enormous number of generatable images. The general-purpose models translate images into vectors, connected to words and texts, and encoded them in vectors, and go through a process of calculations that involves a significant number of parameters. Therefore, AI-generated images should not be considered images, even in compressed form, but rather vectorized probabilities. The concept underlying the quoted AI act paragraph, the idea that generative models create copies of existing images, resembles the accusations moved against early photography, related to the absence of authorial presence and its mechanicality[14]. In fact, in its early phase, photography seemed to be able to provide instantaneous replicas of the natural world, copies that were only warped by the quickly diminishing mechanical defects, truthful depictions of the reality that were seen as unaffected, unlike other visual experiences, by subjective biases, and the camera was seen as a device able to provide an impersonal rendering of the world.

---

[14] D. Rubinstein, *How photography changed philosophy*, New York, Routledge, 2023.

The influence of realism concurred to an enthusiastic reaction related to the seeming impersonal photographic process and to the emerging possibility of documenting reality, of recording and observing it through a new medium which could minimize the influence of external subjects and render with fidelity even small details.

For example, in the essay titled *The pencil of the nature*, published in 1844, Talbot developed on the one hand the thesis of the naturalist and realist characters of photography, and described the camera as an objective observer, an accurate instrument that «chronicles whatever it sees, and certainly would delineate a chimney-pot or a chimney-sweeper with the same impartiality as it would the Apollo of Belvedere»[15]. On the other hand, for Talbot, photography – which he defined as Photogenic Drawing – represented « the first specimen of an art»[16], as it was able to capture details that «may awaken a train of thoughts and feelings, and picturesque imaginings»[17]. Furthermore, Talbot was the first author who underlined an aspect that Walter Benjamin would have defined, several years later, the optical unconscious (*Optisch-Unbewussten[18]*). In fact, in the description of the picture that he took of the Oxford Queen's College Entrance Gateway, Talbot observed that «it frequently happens – and this is one of the charms of photography – that the operator himself discovers on examination, perhaps long afterwards, that he has depicted many things he had no notion of at the time. (…) sometimes a distant dial-plate is seen, and upon it – unconsciously recorded – the hour of the day at which the view was taken»[19]. It appears clear that, for the author, the Photogenic Drawing process had great potential not just as a tool to foster scientific research, but also as an artistic medium. This enthusiastic view was adversely affected by several intellectuals of the time, such as Zola, Ingres, Maupassant and Baudelaire[20]. For the latter, the technical process that brought to the photographic image, precisely because of its realistic character, could not have an artistic value: «Are we to suppose that a people

---

[15] W.H. Fox Talbot, *The Pencil of Nature*, Longman, Brown, Green and Longmans, London 1844, p. 18. Available at
https://monoskop.org/images/4/4b/Talbot_H_Fox_The_Pencil_of_Nature.pdf
[16] Op. cit., p.2.
[17] Op. cit., p. 26.
[18] This concept first appeared in W. Benjamin, *Kleine Geschichte der Photographie* (1931), Berlin, Alexander Verlag, 2023, p.17.
[19] W.H. Fox Talbot, *The Pencil of Nature*, Longman, Brown, Green and Longmans, London 1844.
[20] See J. Kelly, *Photographic Reality and French Literary Realism. Nineteenth-Century Synchronism and Symbiosis*, in "French Review", LXV, 2, 1991, pp. 195-205.

whose eyes are growing used to considering the results of a material science as though they were the products of the beautiful, will not in the course of time have singularly diminished its faculties of judging?»[21]. On this regard it is interesting to note that, in his controversy against French literary realism, Barbey d'Aurevilly ironically defined the realists as «the daguerreotype school» (*l'école du daguerreotype*[22]), a criticism leveled against the alleged impersonality and mechanicality of the photographic device, against the debasement of the any artistic values' hierarchy. If the debate over the mechanicality of AI-generated images recalls the discussions that arose when photography was invented, an entirely opposite concern today is the erosion of the testimonial nature of photographic images due to the increasing diffusion and accessibility of text-to-image technologies.

In a recent publication which examines the relationship between Synthography and Photography, Zylinska underlined how synthography can be interpreted both as a continuation and, at the same time, a disruption of historical debates related to photography and the visual arts[23].

On the one hand, the author states that images are increasingly produced by and for machines, evolving from mere representations to components within complex "image flows." The shift where AI systems autonomously generated and processed images marks a significant departure from early photography, which aimed to capture and convey reality with minimal subjective intervention. To describe the implications of AI-generated images in the process of image creation, the author introduced the concept of the "perception machine", which refers to the transformation of photography into a computational medium which works only partially under human control. By undergoing significant transformations through its interactions with various media technologies and infrastructures, the photographic medium is evolving into a multimodal medium defined as "sensography," whose operation depends as much on sensors and other measurement and computation tools as it does on optical equipment.

On the other hand, the recent development of Text-to-Image technologies further complicated the indexicality value of images. Zylinska cites an analogy with early

---

[21] Op. cit., p. 20.

[22] See E. Maynial, *L'Epoque realiste*, Paris, Les CEuvres representatives, 1931, p. 67.

[23] J. Zylinska, *The Perception Machine: Our Photographic Future between the Image and the Algorithm*, MIT Press, Cambridge, 2023.

critiques of photography, arguing that TTI marks a move toward what she terms "after-photography", a phase in which pictures no longer serve as direct witnesses to the world but subsist within computational models as probabilistic patterns of reality.

2. Generative AI and the testimonial value of images.

The 134th paragraph of the AI-act, titled *Obligation to disclose artificially generated content*, involves in our view issues of Aesthetic interest, such as the documental value of images, the pictorial testimony aspects and the indexical characteristics involved in the creation of images.

> Further to the technical solutions employed by the providers of the system, deployers, who use an AI system to generate or manipulate image, audio or video content that appreciably resembles existing persons, places or events and would falsely appear to a person to be authentic (deep fakes), should also clearly and distinguishably disclose that the content has been artificially created or manipulated by labelling the artificial intelligence output accordingly and disclosing its artificial origin. [24]

In the Aesthetic contemporary debate, it is argued that how the transformation implied by TTI extends beyond the art world, impacting a wide range of image-related practices[25]. It is crucial to examine how the status of images evolves across social, cultural, and political dimensions. As images become more prevalent and influential in various spheres, the erosion process of the images' documental value of becomes increasingly relevant.

By drawing on Maynard's perspective[26], Perini stated that the prevalence of discussions on depiction in the aesthetics literature caused the sidelining of aspects related to the detective function of the image: «Not all images function as depictions, but the aesthetics literature has been dominated by discussion of depiction. Discussion of the epistemic value of photographs has thus centered on comparison to hand-rendered depictions, such

[24] https://ai-act-law.eu/recital/134/

[25] L. Hausken, (2024), *Photorealism versus photography. AI-generated depiction in the age of visual disinformation,* in "Journal of Aesthetics & Culture", 2024, 16(1), pp. 1-13.

[26] Cfr. P. Maynard, *Talbot's Technologies: Photographic Depiction, Detection, and Reproduction*, in "The Journal of Aesthetics and Art Criticism", 1989, 47 (1), pp. 263-276.

as whether they are more objective or embody information».[27] The idea that photography relies on indexical relationships with reality, capturing direct imprints of the world rather than interpreting it, gained increasing influence through Rosalind Krauss's use of Peirce's semiotic categories to interpret the photographic image. The radical difference between photography and other forms of mimetic arts, such as painting or sculpture, has been presented by the author in the famous essay *Notes on the Index*[28]. In such essay, Krauss argued that the meaning of the indexes is established along the axis of a physical relationship to their referents, and since «every photograph is the result of a physical imprint transferred by light reflections onto a sensitive surface. The photograph is thus a type of icon, or visual likeness, which bears an indexical relationship to its object».[29] According to André Gunthert[30], this interpretation stands in the wake of Clement Greenbergs' modernist position, which consisted in the idea that: «Each art had to determine, through its own operations and works, the effects exclusive to itself».[31] In fact, in Gunthert's view, while seeking to counter the pictorial hegemony of formalist discourse by importing the photographic model into the field of art, Krauss remains within the path of the modernist characterization through the particular means of the medium, even as Krauss attempts to challenge the graphical primacy of formalist discourse by introducing the photographic model into the sphere of Art. The author's argument, which consists in separating photography from true icons, is based on the absoluteness of this physical nature, which appears to suppress or forbid those processes of schematization or symbolic intervention inside the graphic representations of most paintings. According to Gunthert, this approach is debatable, as its alleged technical foundation does not stand up to detailed examination. In his view, while mobilizing the notion of the index to bring out the idea of a physical relationship between the sign and its source, Krauss forgets the role played by the optical device in transferring the light captured, and the author does not recognize the decisive role of the camera. Such a device, in fact, can be better understood

---

[27] L. Perini, (2012). *Depiction, detection, and the epistemic value of photography*, in "The Journal of aesthetics and art criticism", *70*(1), p. 151.

[28] R. Krauss, *Notes on the Index: Seventies Art in America,* in "October", Vol. 3 1977, pp. 68-81.

[29] Op. cit., p. 75.

[30] A. Gunthert, *L'image partagée. La photographie numérique*, Éditions Textuel, Paris, 2015.

[31] C. Greenberg, *Modernist Painting* (1960), in J. O'Brian, *The Collected Essays and Criticism*, IV: 1957-1969, University of Chicago Press, Chicago, 1993, p. 86.

as a switch rather than a mirror, as a machine for selecting interpretations according to a set of parameters with complex interactions requiring precise choices.

In this perspective, the transformation of images into information indexed the digital images, as they became embeddable on digital databases, versatile, editable, ubiquitous, and accessible anywhere. On the one hand, the emergence of digital photography brought about a partial redefining of the photographic picturing process, as it acknowledged the existence of a negative (digital or analog) and the prints produced from it. On the other hand, with the advent of digital camera and the concept of post-photography, the possibility to create an image from a collection of pre-existing data started to cause the erosion of the relationship between the imagining-depictive function and the image detective function[32]. From an aesthetic perspective, the documental value of photography has been challenged way before the invention of the digital cameras, not only given the vast episodes of alteration that characterized the history of photography[33], but mainly because of the ontological status of the photographic images. Since photography's prerequisite is the presence of a reality that gets «captured», ensues the impossibility to use the photographic medium to depict something that does not exist, the photographic image is configured as the record, the testimony of something that existed[34].

In her work on the "epistemic backstop", Rini argued that photographs have historically functioned as a final check against doubt a means of verifying claims about the world when other evidence is insufficient[35]. Deepfakes undermine this role by making it possible to fabricate realistic but false images and videos, thereby eroding trust in visual media as a source of knowledge.

Nevertheless, the depictive function is central to interpretation only if we accept that the image is created metonymically through an exclusive process of physical-chemical contact. By reducing the photograph to its physical-chemical and mechanical origins, its iconic nature is sidelined, and the fact that a photographic image can only represent its

---

[32] For a seminal analysis of the relationship between the visual studies and the detective function of images see T. Y. Levin, U. Frohne, P. Weibel (Eds), *CTRL (Space) – Rhetorics of Surveillance from Bentham to Big Brother,* Chicago, MIT Press, 2002.

[33] M. Fineman, *Faking it: Manipulated photography before Photoshop*, Metropolitan Museum of Art, New York, 2012.

[34] On this aspect see R. Barthes, *La chambre claire. Note sur la photographie*, Gallimard, Paris 1980, p. 49.

[35] R. Rini, *Deepfakes and the Epistemic Backstop*, in "Philosophers' Imprint*"*, 20(24), 1–16, 2020.

referent is downplayed. This critique assumes the diminishing role of the operator, as if the mechanical production of the image happened independently from the role played by the human operator.[36] In contrast to such criticism, as early as the 1930s, Gisèle Freund wrote against the conception of photography as a documentary medium: «Photography, although strictly linked to nature, has only factitious objectivity. The lens, the supposedly impartial eye, allows all possible distortions of reality because the character of the image is determined each time by the operator's way of seeing»[37]. The critique of mechanicality in the image production process and the absence of authorship have been directed at both photography and AI-generated images. While digital and analog photography rely on a performative process that involve, at least in part, a somatic component, generative artificial intelligence focuses primarily on elaborating linguistic prompts to create synthesized images. In fact, in the use of text-to-image technologies, the prompting process requires linguistic-semantic skills and, in the image definition phase, figurative competences that are not related to manual dexterity, as in the case of photography. Despite the different form of human interaction with the medium, it can be argued that in both cases the by the human author plays a relevant role, an aspect deepened in the next paragraph.

3. Conclusions. Are AI-generated images a new form of visual art?

One final aspect of aesthetic interest related to the AI Act that this article analyzes concerns the possible contribution offered by AI-generated images in the field of the visual art[38]. In our view, Text-to-image technologies are more accurately categorized as artificial intelligence art (AI art) rather than as traditional computer-based art. In fact, according to Manovich, AI art involves using computers to autonomously create new works or experiences that are recognized by art professionals as part of contemporary

---

[36] A. Bazin, *Ontologie de l'image photographique* (1944), in "Qu'est-ce que le cinéma", Cerf, Paris 1990.
[37] G. Freund, *La photographie en France au XIXe siècle : essai de sociologie et d'es thétique* (1936), Paris, Christian Bourgois, 2011.
[38] See the AI-act, 105: «General-purpose models, in particular large generative models, capable of generating text, images, and other content, present unique innovation opportunities but also challenges to artists».

art[39]. Manovich emphasizes that for art to qualify as AI art, it must be computer-generated rather than merely computer-assisted, indicating that the artist entrusts part of the creative process to a machine, leading to a collaborative effort. In the creation of text-to-image works, the artist is crucial in crafting the prompt, potentially defining the dataset, choosing the most significant outcomes, and editing them, making their role as important as that of the AI system.

Similarly, in a report titled AI and the Arts[40], the authors discuss how TTI reshapes creative practices by making available tools that challenge traditional definitions of authorship and originality. Some contemporary artists, like Sofia Crespo and Jake Elwes, perceive AI as a collaborator that opens new dimensions for creativity. For example, Crespo uses AI to produce speculative images of nature that blur the line between life and non-life. Through their very existence, these pieces challenged the idea of "uniqueness" in art. They placed TTI squarely in the camp of democratization regarding image-making. something that allows elaborate visuals to be created without special training. Democratization also questions artistic authenticity.

Moreover, the AI and the Arts report reveals how TTI technologies challenge artistic practices and the structures of creative labor. The authors document how artists adopt AI as a tool that modifies traditional workflows, resulting in the form of "statistical creativity" in which machine learning outputs are curated and contextualized by human artists. This dynamic of machine-assisted art still relies on human interpretation, which underlines the artist's indispensable role in assigning meaning to the generated images.

In the most recently published chapter of their book on the Aesthetics of AI, Manovich, and Arielli the authors draw on «the Aesthetics of Fragments»[41]. Such a concept refers to the process that generative AI performs in order to create visual elements that resemble fragments of familiar objects but possess a unique ontology, as they result from patterns extracted from massive datasets, whose artistic potential remains to be explored.

---

[39] L. Manovich, *Defining AI arts: three proposals*, in "AI and dialogue of cultures exhibition catalog", http://manovich.net/index.php/projects/defining-ai-arts-three-proposals, 2019.
[40] A. Ploin, C. Eynon, D. Hjorth Osborne, *AI and the Arts: Artificial Intelligence and the Creative Industries*, The Alan Turing Institute, London, 2022.
[41] L. Manovich, *Separate and Reassemble: Generative AI Through the Lens of Art and Media Histories*, in "Artificial Aesthetics", 2019. Available at: https://manovich.net/content/04-projects/170-artificial-aesthetics/manovich-artificial-aesthetics-ch7.pdf.

In our view, the most relevant aspect regards the transposing of the image-creation process from the analog arts to the notational ones or, by drawing on Nelson Goodman's terminology, from the autographic to the allographic art forms[42]. In this perspective, AI-generated images can be considered partly autographic and partly allographic, since the linguistic prompts constitute only the notational aspect of the generated file, just as a musical score constitutes only the notational aspect of the musical work. Unlike conventional notations, TTI prompts do not univocally and precisely determine the final output. The same prompt can generate different images due to the inherent randomness and variability in the AI's generative process. This indeterminacy means that TTI cannot be fully considered allographic, as the notation (the prompt) does not guarantee a specific, repeatable result. In our view, the process of creating synthetic images using text-to-image software is allographic during the design stage, as it involves the precise formulation of prompts that specify the image's elements. In the subsequent phase, the process becomes autographic, focusing on executing a series of linguistic prompts that determine the image's final features. The production history of the image serves as a key factor in distinguishing between two images created with the same prompts, but in different temporal contexts. Therefore, AI-generated images may occupy a hybrid space between autographic and allographic art forms. While the prompts resemble a notational system, the uniqueness of each generated image aligns more closely with autographic practices, where each instance is singular and cannot be exactly replicated.

---

[42] N. Goodman, *Languages of arts. An approach to a theory of symbols, Indianapolis-New York*, The Bobbs-Merrill Company, 1968.