

Scanning Experience: Taste, Scent, and Touch in the Immersive Archive

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The Archive of Experience, the Experience of the Archive

Working in the archive is an experience fraught with the tension between salvaging access to testaments of the past and the irreducible layer of mediation by which this experience becomes possible. That which is salvaged is simultaneously irreversibly posited as synecdoche¹ of the past. The archive protects. It conserves testaments of experience and simultaneously testifies to the loss of that experience. It is inevitably partial, residual, and incoherent. Archives – a great wealth of material cultural heritage – simultaneously signify the “traumatic horizon of loss”² within a complex affective perspective.

¹ See: M. Pustianaz, *A Tale of Terror. Or, Archive by Fire* [in:] G. Palladini and M. Pustianaz, ed. (*Lexicon for an Affective Archive*), Bristol & Chicago 2017, p. 15.

² *Ibid.*, p. 17.

The experience of the archive runs on at least three parallel tracks. By archiving the present in real time, a document's author invokes the existence of memory as material space. The keepsake opens up the potential for the archival *collection*. The very "act of archiving," "as an attempt to avert or infinitely delay what we know is inevitable: the fragility of connections and their continuous loss,"³ reflects a will to intervene on the experience of the present at the critical moment when it slips into the past. Yet, at the same time, by this future-oriented gesture, the archivist establishes the potential for accessing experienced contemporaneity. The remembrance of the archive evoked in this gesture becomes a vehicle for time,⁴ opening a dialogue between what has been lived and what is being lived. By conserving and representing an object or experience, the archivist asserts its relevance to the future. Invoking Jacques Derrida's *Archive Fever*, Marco Pustianaz, the curator⁵ of *Lexicon for an affective archive*, foregrounds the archivist's future-facing intent: archives [...] are there to launch a future."⁶ Documenting the present is essentially a way of contemplating the future.

Yet another mode of working in the archives is the position assumed by the scholar, heir, or archivist who confronts the chaos of the private archive and translates this chaos into a semi-coherent narrative of someone's past.

³ Ibid.

⁴ K. Tórz, *Od redakcji*, [in:] *Leksykon archiwum afektywnego*, Gdańsk & Warszawa 2015, p. 6.

⁵ Together with Giulia Palladini.

⁶ M. Pustianaz, *A Tale...*, p. 19.

The archivist's work is a creative act⁷ premised on understanding (interpreting) the organized collection. As this archival labor plays out, it begins to immobilize the collection in pared down form – usually as sterile images often supplemented by the sound or movement of film. The archive's projected image bears the stamp of its status as an object of research.

This article sets forth theoretical reflections rooted in my own archival experiences digitizing Julian Przyboś's home archive in Warsaw under the auspices of the project *Julian Przyboś – An Anthology of Uncollected and Unpublished Texts*. This entirely banal archival work (scanning delicate sheets of paper; cataloging manuscripts edited by hand and smeared with ink spots or coffee stains; the various phantom drafts of Przyboś's work; stylistic notes or spontaneous ideas quickly jotted down on the back of a business card or postcard) prompts the not-at-all banal question of the current scope and past potential for archiving experience in all its complex aspects. By eroding the archivist's experience, the scan imparts no somatic or sensory dynamic by which we might reconstruct another person's narrative, nor does it evoke a tangible memory of the archived experience. The mediator's position between the archive's creator and its target audience brings into focus the severe limitations of both practices.

A third circuit of archival experience involves the reader or visitor reading, observing, or listening to the ar-

⁷ See: G. Palladini, *A Tale of Delight. Or, jouissance d'archive*, [in:] *Lexicon for an Affective Archive*, p. 18.

chive. The archive's contents, mediated many times over, amount to a selective and incomplete gesture towards the represented past, and finally, toward the archive itself. This mediation activates, in the visitor's reception, the ephemeral and potentially traumatic effect of brushing up against the material residue of someone else's existence. By the time the archive is accessible to witnesses many times removed from its reference point, its form tends to be sterilized of all its immediate sensory properties (the texture of fabric and objects; the scent of old paper). Can we take up the rhetorical question posed by Katarzyna Tórz, co-editor of *Lexicon of an Affect Archive*, and say that the archive (and particularly the virtual archive) can potentially "protect that to which bears witness – an image, an experience, the memory of a person – from annihilation and irrevocable loss?"⁸

The Materiality of the Archive

Inherent to the materiality of the archival memento is a distance of not only temporal, but also sensorial - and thus necessarily *affective* - nature. Archives, constructed on the basis of relatively new but already insufficient "technologies of memory"⁹ (the photograph; the scan; a sound recording; a film), reduce represented experience to its audiovisual properties. Unlike the modalities of smell, taste, or touch, all of which entail direct contact with the object of perception, vision and hearing enable the archive visitor to contemplate the perceived object

⁸ K. Tórz, *Od redakcji*, [in:] *Leksykon archiwum...*, p. 6.

⁹ This term is used in: A. Cvetkovich, *Drawing the Archive in Alison Bechdel's "Fun Home,"* "Women's Studies Quarterly" 1-2/2008, p. 118.

from a physically removed position. The experience of the past, mediated through an image or sound extracted from the total *somatosensorium*, stabilizes the experience within a distancing temporal, spatial, and sensual framework and a dynamic of emotional *detachment*.

Visual and sound documents will never simulate *presence* to a satisfying degree. The audiovisual archive lacks *immediate* sensuality – a feature so essential to the original experience. Direct contact with the archival object poses a clear threat to its integrity. The self-referential scent of the organic decay of archival materials – acidic paper; disintegrating fabrics and objects – is neutralized in the sterile reproduction that is the scan. As the object falls apart, it requires sophisticated procedures of conservation. Today, most archives make no effort to preserve the scent or taste of the past or to share the tactile properties of their holdings. Unlike audiovisual data, properties of taste, touch, and smell resist reproduction and simulation through comprehensive digitalization. This reduction of sensory experience coincides with a reduction of affective experience in so far as direct (and particularly olfactory) contact can summon intense emotional or mental associations.¹⁰

How does the sensory and affective horizon of the archive change as new technologies of memory are patented and

¹⁰ See: R.S. Herz, *Are Odors the Best Cues to Memory? A Cross-Modal Comparison of Associative Memory Stimuli*, "Annals of The New York Academy of Sciences" 855/1998, *Olfaction and Taste XII: An International Symposium*, pp. 670–674; see also: R. Carter, *Tajemniczy świat umysłu*, trans. B. Kamiński, Poznań 1999, p. 114.

popularized? Does Pustianaz's "horizon of loss" give way to a horizon of experience regained? Adrian David Cheok, a leading figure in the current boom of experimental sensory engineering, assures us that we will soon "go from the information age, which is where we are now, to the age of experience."¹¹ The archive of the future may well take place within "mixed" or "augmented" reality¹² that (seamlessly) binds physicality with virtuality by rendering accessible digitized *experience* (according to its holistic and somatosensory definition). The concept of mixed reality implies the domination (or at least supplementation) of virtuality with tangible physicality that can recover the authenticity of *lived experience*.

Archiving Touch

While the touch and tangibility (or tactility) of data has today become a universal experience, this touch is inherently *controlling* rather than cognitive or aesthetic. Museum exhibitions remain *untouchable*, and archives are shielded from invasive haptics. As a sense, touch has been extensively instrumentalized within technology. On the level of the haptic interface, it is marshalled to render an enhanced audiovisual experience in the form of touch screens, keyboards, and buttons we use to manipulate image and sound. The initial touch (or more precisely, pressure) is synesthetically *translated* to internal commands

¹¹ A.D. Cheok, cited in: S. Hickey, *Groundbreaking gadgets aim to provide a feast for the senses*, The Guardian, 9.28.2014, <https://www.theguardian.com/technology/2014/sep/28/groundbreaking-gadgets-feast-for-senses> (4.24.2017).

¹² D. Soo, *A new age of VR involving all five senses*, *International Society for Presence Research*, 8.02.2016, <https://ispr.info/2016/08/02/a-new-age-of-vr-involving-all-five-senses/> (4.24.2017).

and cues, but aside from the simple vibration of a telephone or armband, it is not rendered deliberately as output. It is increasingly possible to translate tangible experiences of texture, temperature, and physical contact with the object – experiences off-limits in the museum and inviable in the digital archive – as we evolve our methods for digitalizing and simulating them. So far, however, attempts to convey touch remotely have yielded underwhelming findings and applications.¹³

Scanning Taste and Scent

Inventing digital scent and taste poses a severe challenge for two main reasons. Firstly, while the human ear can distinguish half a million sounds and the human eye several million colors, current estimates¹⁴ suggest that the number of olfactory stimuli discernible to the nose may well exceed one billion. Moreover, the mechanics of audiovisual perception and senses of touch, smell, and taste differ vastly. Taste and smell are chemical senses that rely on the interpretation of absorbed and inhaled substances on a molecular level. This differs from the reception of sound waves and light by the ear and eye, and from touch, which is based on pressure and temperature. The hardest sense to reproduce is smell, and yet the benefits of such a feat would be enormous. Because of its direct linkage to the limbic system, smell has the power to connote and in-

¹³ See, for example, the “touch ring” (R. Chalmers, *Digitising smell: The third sense is coming to your phone*, Newsweek, 9.11.2014, <http://www.newsweek.com/2014/09/19/digitising-humanity-about-take-another-huge-step-forward-smell-269729.html> (4.24.2017)) or “Huggy Pajamas,” see: D. Soo, *A new age...*.

¹⁴ C. Bushdid, M.O. Magnasco, L.B. Vosshall, A. Keller, *Humans Can Discriminate More than 1 Trillion Olfactory Stimuli*, “Science” 343/2014, pp. 1370–1372.

voke memories, feelings, and moods. In essence, olfactory senses could be critical for the virtual affective archive.

Synthetic Sensorium

The question of media is complex and touches on all aspects of simulated perception. As we design the synthetic sensorium, should we bypass the level of mediation inherent in the sensory organs: the ear, nose, tongue, eye, and skin? Recent research on directly stimulating the cerebral cortex has already pushed beyond the traditional understanding of perception as an epiphenomenon of physical contact with the outside world.

Conventional approaches to perception give rise to equally conventional strategies for its simulation by reproducing and sensing physical stimuli. Take, for instance, using a diffuser to disperse airborne compounds in order to recreate the chemical profile of a scent recognizable to sensory receptors in the nasal cavity, which will then convert chemical signals picked up by the nose into electric signals so that the scent is interpreted as desired in the targeted region of the cerebral cortex. Perhaps the physical fabrication of olfactory stimuli will eventually give way to the direct and unmediated transmission of its concept, therefore bypassing the need for physical reception. In this case, a specific scent would be experienced as the *cerebral image* of its referent – as a rubric for the external experience evoked by that scent. Bypassing the mediation of biological sensory organs has the dual effect of distancing the human subject from “reality” while bringing

her closer. On the one hand, it enables the mental experience of scent without the distortions inevitably tied to the mechanisms of human perception: the dilution of scent as it makes contact with the air, sensory deficiencies of the individual body, or congenital or acquired damage of the sensory organs due, for instance, to illness (even as minor as the common cold). On the other hand, this method “dehumanizes” perception by creating the potential for a superhuman, trans-species, or entirely fabricated experience with escapist implications.

Eliminating the biological mediators of perception by transmitting the signals of stimuli directly to the cerebral cortex may well yield sensory effects unattainable in reality that are fantastical, invented, and not bound to any one species. In this way, we could fabricate a perpetual smell, or the perpetual experience of a scent that the human nose would otherwise cease to recognize after a few minutes of exposure. These possibilities hint at the potential phenomenon of *virtual sensory fiction* – a subject that may well prove controversial.

Digital Smell

Current methods for reproducing and digitalizing smell have now drawn the interest of entrepreneurs, engineers, and academics. Research centers all over the world are rapidly developing technology to digitize scent and taste.¹⁵ In Tokyo in 2016, at the Third Annual Meeting of Digital Olfaction Society [sic],¹⁶ the California-based Aromyx

¹⁵ Digital Olfaction Society, <http://www.digital-olfaction.com/welcome-to-dos.html> (4.24.2017).

¹⁶ Digital Olfaction Society, <http://www.digital-olfaction.com/welcome-to-dos.html> (4.24.2017).

Corporation presented their digital AromaGraph, which is already available to consumers.¹⁷ Aromyx's patented EssenceChip captures and interprets a set of biochemical signals¹⁸ sent to the brain by specific olfactory or gustatory stimuli (such as a perfume, food item, or beverage). The AromaGraph, therefore, does not provide an objective image of a substance's chemical profile but the digital representation of the subjective effect of an observed phenomenon of taste or smell on the cognitive human subject.

Using computational power to process the data of immediate sensory experience has given rise to the technology of digital *sensory communication*. Adrian David Cheok's laboratory in Japan is developing a small sensor called Scentee that can be attached to the telephone. The sensor enables "aromatic communication" on a rudimentary level by sending or receiving scent messages.¹⁹ Cheok's team is also experimenting with a method that uses tiny electrodes in the interior of the nose to activate scent receptors as well as a non-invasive technique that electro-magnetically stimulates the circumscribed region of the cerebral cortex responsible for perceiving scent.²⁰ More advanced than Scentee – a scent-stamp of sorts – is the technique of remote scent transmission developed by the Paris-based studio Le Laboratoire (led by David Edwards).

¹⁷ Aromyx Technology, *Olfactory genomics in an easy-to-use commercial solution*, Aromyx. Digitising Scent and Taste, <http://www.aromyx.com/technology/> (4.24.2017).

¹⁸ Ibid.

¹⁹ Scentee, <https://scentee.com/> (4.24.2017).

²⁰ A.D. Cheok, *Taste and Smell Internet: A Multisensory (Media) Communication Breakthrough*, *Future Young Leaders*, 15.01.2013, <http://www.futureyoungleaders.org/articles/january-2013-edition/taste-and-smell-internet-a-multisensory-media-communication-breakthrough/> (4.24.2017).

The studio's suggestively advertised²¹ "oPhone"²² allows one to autonomously design complex scent compositions that can be "printed" and sent to other oPhone users. Also available are scent printers for personal use, such as Cyrano²³ – a "digital scent player" that reproduces "o-notes" curated by the user.

Simulating Taste

One conventional yet effective method for simulating taste is Le Laboratoire's chocolate spray "Le Whif:" "Le Whif is a new, delicious approach to eating – by breathing. Le Whif allows you to inhale food – such as chocolate – and taste it without chewing for a zero-calorie experience of taste."²⁴ The spray, which consists of minute particles of the nutrient, is in fact no more than an actual gustatory stimulus. It introduces no revolutionary novum into the world of synthetic perception. Japan-based Mixed Reality Lab has developed the bolder prototype of a "digital lollipop"²⁵ – a device that simulates sensations of taste by stimulating the tip of the tongue using temperature and electrical impulses.²⁶

The Immersive Archive

Archives that aspire to impart a total experience of the past would necessarily be *immersive* archives where the subject

²¹ Vapor Communications, *Welcome to oPhone*, Vimeo, 26.10.2015, <https://vimeo.com/143637652> (4.24.2017).

²² K. Monks, *Forget text messaging, the 'oPhone' lets you send smells*, CNN, (3.17.2014), <http://edition.cnn.com/2014/03/17/tech/innovation/the-ophone-phone-lets-you-send-smells/> (4.24.2017).

²³ oNotes, <http://www.onotes.com/> (4.24.2017).

²⁴ Le Whif, Le Laboratoire, <http://www.laboratoire.org/en/products.php> (4.24.2017).

²⁵ A.D. Cheok, *Taste and Smell...*

²⁶ *Ibid.*

– archivist, scholar, or visitor – could nest and dwell. The immersive archive would provide more than a hint, trace, or image of the past. It would instead try to simulate the past. Implementing new technologies of memory in this field, including the digitalization of scent and taste, will allow us to reevaluate our understanding of the archive as an aggregate of information. To reference Cheok’s prognosis that we will soon be able to communicate experience in lieu of information,²⁷ the new archive will eventually offer a pure simulation of *presence*. The process of enhancing archives and museums with new sensory dimensions will necessarily unfold gradually.²⁸ Exhibition objects not only put on display but offered up to taste or smell are a rarity today, mainly due to technical obstacles or because of conservationist concerns. The susceptibility of archival materials to physical degradation ends up determining how we share these materials with the public. This often limits our tools to physical displays and digital audiovisual reproductions. Reproduction methods available today for other parts of the sensorium remain underdeveloped, experimental, prohibitively costly and hard to obtain. Archival sensory databases that include senses of direct contact remain modest and arbitrary. To reproduce the scents, textures and tastes of the past, we would need to reference all available textual testimonies, literary texts notwithstanding. Designing a sensory museum that can simulate alleged scents, flavors, textures and temperatures

²⁷ A.D. Cheok, cited in: S. Hickey, *Groundbreaking...* (“In the future we will be able to communicate our experience – not just communicate information but experience”).

²⁸ Maria Popczyk speaks of the “open museum.” See: M. Popczyk, *Sensualne środowisko muzeum otwartego, Sensualność w kulturze polskiej*, 11.17.2011, <http://sensualnosc.bn.org.pl/pl/articles/sensualne-srodowisko-muzeum-otwartego-145/> (4.24.2017).

of specific eras or places would require tremendous work in the vein of sensory archeology to investigate historical cuisines, fashion, and design (the pinch of a corset on the skin, the weight of an eighteenth-century wig, the feel of a straw mattress felt through bedsheets) or “smellscapes” (the aromas of streets, shops, and perfumeries in the urban landscape).

Contemporary smellscapes of major urban centers are currently being documented in Kate McLean’s artistic research project *Sensory Maps*.²⁹ In this project, McLean studies landscapes of scent and represents aggregate data using sensory maps. McLean’s casual method involves synesthetically describing scents encountered over the course of scent-guided tours of urban space (“smellwalking”)³⁰ and translating them into graphic representations. The website SmellyMaps features interactive scent maps of a number of global metropolises (such as London, New York, Madrid, and Rome) where specific sites and streets are coded according to their dominant scents³¹ and the emotional state those scents evoke.³² Still, none of the initiatives named here actually involve innovative methods for archiving the experience of direct contact. They are satisfied with linguistic description (tagging) or synes-

²⁹ Sensory Maps, <http://sensorymaps.com/> (4.29.2017).

³⁰ *About*, Sensory Maps, <http://sensorymaps.com/about/> (4.29.2017).

³¹ There are five basic scent categories of urban space: exhaust, nature, food, animals, and trash. See: Good City Life, <http://goodcitylife.org/smellymaps/index.html> (5.20.2017).

³² *Ibid*; see also: D. Quercia, R. Schifanella, L.M. Aiello, K. McLean, *Smelly Maps: The Digital Life of Urban Smellscapes*, [in:] *Proceedings of the Ninth International AAAI Conference on Web and Social Media (ICWSM)*, 2015; D. Quercia, R. Schifanella, L.M. Aiello, *The Emotional and Chromatic Layers of Urban Smells*, [in:] *Proceedings of the Tenth International AAAI Conference on Web and Social Media (ICWSM)*, 2016, pp. 309–318.

thetic visualizations. The real challenges facing olfactory mapping are how to scan contemporary scents and how to deduce and reconstruct historical senses from archival materials.

One fascinating initiative that comes closest to my vision of the immersive archive is the *University of Amsterdam's interdisciplinary project In Search of Scents Lost: Reconstructing the Aromatic Heritage of the Avant-Garde*:³³ “In this project, scholars, heritage institutions and the fragrance industry will join forces, first to reconstruct the olfactory landscapes and aromatic works of art once created by avant-garde artists and, secondly, to investigate the impact and effectiveness of smell on museum visitors and other audiences.”³⁴ This research, coordinated by Inger B. Leemans, culminated in 2019. A parallel project might turn to the varied sensorium of the Polish Avant Garde.³⁵ Reconstructed on the basis of textual sources, the immersive archive may well offer a compelling multi-sensory space for experiencing the past.

Private Sensory Memories

In light of the sensory themes discussed above, the archive's ambivalent identity as simultaneous testament of

³³ *In Search of Scents Lost: Reconstructing the Aromatic Heritage of the Avant-Garde*, Netherlands Organisation for Scientific Research (NWO), <https://www.nwo.nl/en/research-and-results/research-projects/ii/28/12628.html> (4.24.2017).

³⁴ *Ibid.*

³⁵ For more on multisensory dimensions of the Avant Garde, see: J. Grądział-Wójcik, “Jesteśmy czuli.” *Polisensoryczność jako strategia poetycka polskich futurystów*, [in:] M. Michalska-Suchanek (ed.), *W kręgu literatury i języka*, Gliwice 2012, pp. 83–96; A. Kwiatkowska, *Przybos – powidoki, Sensualność w kulturze polskiej* (7.29.2011), <http://sensualnosc.bn.org.pl/pl/articles/julian-przybos-powidoki-88/> (4.24.2017).

being, non-being, presence and absence becomes acute in the case of personal or family collections. The direct sensory experience inevitably lost in the selective work of archiving resounds within memories deprived of keepsakes and therefore lacking a material foothold in the archive's domain. This domain lacks the flavor necessary to evoke Proustian reminiscence: it lacks discerning touch and imposing smell.

The recent emergence of an interdisciplinary approach to the archive³⁶ embraces it as “a concept, field of study, [...] realm [...] of artistic pursuits,”³⁷ and a vital component of “mankind's roots in its world.”³⁸ These discussions have inspired experimental attempts to claim affect theory for the study of archives. The dialogue between these two fields has already yielded the terms “affect archive” and “archive of feelings” (Ann Cvetkovich's term).³⁹ In the archive's domain, affect and affectivity are relevant to how we perceive the construction of the archive and our subsequent interactions with it. The archive of feelings invokes the “archivist whose documents are important not merely for the information they contain but because they are memorial talismans that carry the affective weight of the past.”⁴⁰ In this way, we end up with “a collection of emotionally charged documents and objects”⁴¹ linked to “lost pasts that they serve as the site of dense and often

³⁶ For example, see: K. Tórz, *Od redakcji...*, [in:] *Leksykon archiwum...*, p. 7.

³⁷ *Ibid.*, p. 6.

³⁸ *Ibid.*

³⁹ A. Cvetkovich, *Drawing the Archive...*, p. 120.

⁴⁰ *Ibid.*

⁴¹ *Ibid.*

unprocessed feeling.”⁴² These objects, then, become access points to an affective experience of the archive for archivist, scholar, and reader alike.

The immersive personal archive, preserving and reproducing immediate sensorial properties, becomes, by definition, an affective archive: the site of emotional keepsakes and the domain of sensations and feelings. Scent’s biological linkage to memory and emotion predisposes “scent keepsakes” for a vital role within the immersive home archive. Smell – an inherently *autobiographical* sense – is a reminiscent medium to be decoded together with the inhaled scent stimulus. The home archive, capacious enough to accommodate the temporal horizon of one or several existences, becomes the domain of recovered biographical experience. While no archive is or should be capable of conveying the unmitigated presence of what has passed, the immersive archive will surely bridge the sensorial and affective distance embedded in the materiality of the keepsake in its traditional form, thereby bringing the subject closer to lost experiences of taste, smell, and touch.

Translated by Eliza Cushman Rose

⁴² Ibid, p. 118.