The 'Sense of Taste' in Art: a pregnancy of possibilities

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Introduction

Food is a politically incentivised resource. Art also possesses a nuanced but potent political voice, as expressed in the assertion of Boris Groys, "... [The] *modern world believes in the balance of power – and modern art is an expression of this belief.*"[1] As such, decisions over what is and is not considered art are also expressions of political power. This paper is about how the chemical 'sense of taste'[2], the human sense which detects and evaluates the innate qualities of foods and flavours, having been excluded from the practice of art and its philosophical considerations, might achieve artistic credence in order to exercise its political voice and speak about, among other topics, the politics of food.

The sense of taste began its long exile from the European tradition of art[3] at roughly the same time that Plato positioned appetite in opposition to rationality, describing it as "*a wild animal which was chained up with man*"[4]. Much later, unable to imagine the cultural potency of the chemical senses at the christening of conceptual art, Hegel concluded that, "*Consequently the sensuous aspect of art is related only to the two theoretical senses of sight and hearing, while smell, taste, and touch remain excluded from the enjoyment of art.*"[5] In light of the substantial scientific discoveries that have been unearthed concerning the senses, with consideration for the ever-changing contemporary art narrative and the rapid evolution of modern food sciences, it is now a suitable time to revisit the rationality and validity of these exclusions[6]. The disembodiment of the human sensorium stands as a perversion in contemporary art[7], which seeks to express the "absolute spirit"[8] of mankind yet limits itself to only two dimensions of the human experience. As Constance Classen explains about the ideas of Walter Pater in reference to Symbolism, "*the Enlightenment had produced an artificial split between sense and intellect, body and spirit, which needed to be reconciled through art.*"[9]This artificial rift in the artist's body[10] must be addressed if nature and culture are to work in harmony; however, to do so

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[1] Groys: *Art Power*, p. 2
[2] See page 2: "*A Need for Clarity*" for an explanation of my use of this term in this paper.
[3] This paper addresses concerns within the European tradition. Carolyn Korsmeyer provides a superb summary of the development of sense of taste in European philosophy in her book, *Making Sense of Taste*.
[4] Plato: *Timaeus*, Sec. 70e
[5] Hegel: *Aesthetics: Lectures on Fine Art*, vol.1 p.38
[6] Reasons for the exclusion of taste include the subjective nature of taste perception, the ephemeral nature of flavour and its argued lack of aesthetic principles of order. Additionally, the functional necessity of food has often been perceived as an obstacle to art.
[7] By this I mean that, the senses are interconnected and exert an influence upon each other in their physiological operations, yet we have isolated their functions within philosophical considerations and valuated them in a hierarchical order in culture, interpreting their behaviour in a way that is in disaccord with their nature.
[8] Hegel: *Philosophy of Mind*, p. 169
[9] Classen: *The Color of Angels*, p. 109
[10] As exemplified in the notion of the 'hierarchy of the senses'.

requires theories which estimate how the 'bodily senses' can be meaningfully utilised in the practice of contemporary art.

A Need for Clarity

I have chosen to focus on the chemical senses (taste, olfaction and trigeminal sensations) rather than on cuisine, as a distinctive property of food is its engagement with the sense of taste through its transmission of flavour. While the material of food can be utilised in visual art, flavour's relationship with the non-visual senses presents a rich and largely untouched dimension for philosophical consideration. A conceptual starting place for the artistic consideration of the sense of taste is the separation of flavour from food itself; or, from an alternative perspective, a separation of the consideration of sensory perception from digestion. The defence of flavour's artistic merit by means of separation has, in the past, been condemned as "perverse"[11]; however, with a thriving multi-billion dollar flavour industry established as a fixture within the global food system it would seem that we have embraced this separation as a feature of our society, and that scrutiny of this separation is validated by the flavour industry's significance for culture.

Discussions concerning 'taste' quickly become convoluted as the term itself possesses different meanings. Within aesthetic literature the term 'taste'[12] came to be used as a metaphor to describe a judgement of artistic value[13]. In sensory science the term 'taste' only refers to the perception of sweet, salty, bitter, sour and umami[14], as flavour is perceived by olfactory receptors and 'mouth feel' is communicated by way of the trigeminal nerve. And yet, colloquially, the term 'taste' is most commonly used to explain the combined experience of perceiving those things which are placed into the mouth. While the use of this term as a collective sensory experience is erroneous, its use in this manner is most broadly understood. As such, I will continue to use the expression 'the sense of taste' to describe these combined sensations in this paper unless otherwise clarified.

In much the same way, the term 'food' is as divisive as it is unifying. Working across cultures and disciplines (such as food science, food policy, gastronomy and agriculture) a reference to food may conjure a broad range of differing ideas. In the case of cuisine, chef Ferran Adria utilised two bundles of grapes in an analogy which explained the minority percentage of *avant garde* cuisine within gastronomy. Beginning with two bundles of grapes, Adria trimmed branches off the bundles with a pair of scissors (each cut representing a category of cuisine) until he arrived at a single seed, which represented the global percentage of *avant garde* cuisine[15]. To take this illustration a step further, in

[11] Korsmeyer: *Making Sense of Taste*, p. 105
[12] Such as, an artwork was created in 'good taste'.
[13] Hume: *Of the Standard of Taste*
[14] There is still debate surrounding the validity of umami as a primary taste. See Beauchamp / Bartoshuk: "*Tasting and Smelling*", p. 14
[15] Adria: "*Do I have an Appetite for Creativity?"* mins. 19:00-24:00

this conversation about molecular gastronomy which can be understood as art we might extract a sequence of the DNA coding of Adria's *avant garde* pip.

As with definitions of 'taste' and 'food', 'art' is an ideal which is constantly being negotiated. The term 'art' is used to refer to ancient artefacts, to the aesthetic masterpieces of the past, and to the conceptual forms of the present. When I discuss the validity of the non-visual sense of taste in art I am referring to contemporary art practice and the idea that flavour has the potential to convey complex concepts.

On Food in Art

Positioned above tradecraft and beneath art, gastronomy has developed autonomously; finding companionship in science but removed from the direct benefits of the philosophical movements which shaped and guided art. While science, art and cookery may now find reason to intersect through molecular gastronomy, each has developed with a distinctive pedagogy and possesses specific aims which, in some cases, find mutual benefit in conjunctionality; however, in the regular practice of these disciplines they ultimately diverge from each other. Art has engaged with food in the past but I would like to propose a different direction for this engagement, what might be called 'tasted art'. In such artworks, the prerequisite characteristic is the incitment of the sense of taste, where flavours and trigeminal stimulation are responsible for the delivery of an artworks primary concept. While molecular gastronomy is well suited for such artwork, this 'flavour first' criterion also clears the way for novel uses of flavour chemistry and food science in non-culinary ways.

Food has been utilised in artwork in the past in three ways: 1) as a symbol; 2) as sculpture and; 3) as a facilitator of social engagement. Since the turn of the Common Era food has been used symbolically within the rich visual language of art; examples may include Sosos of Pergamon's playful second century mosaic, *Asarotos oikos* (the ill-swept room), or Dürer's classical engraved depiction of the apple as the embodiment of sin in *Adam and Eve*. In more recent times this symbolism has come off the canvas, such as the use of apples in Allan Kaprow's *Apple Shrine* (1960)[16] or the suggestive use of chocolate in Karen Finley's, *We Keep Our Victims Ready* (1990). Examples of works of food sculpture can be found in Dieter Roth's and Joseph Beuys' early work with food, Jana Sterbak's *Vanitas: Flesh Dress for an Albino Anorectic* (1987), and Janine Antoni's *Gnaw* (1992). Finally, the use of food as a facilitator of social engagement can be seen in works as old as Marinetti's Futurist feasts[17] or in modern happenings as Barbara Smith's Ritual Meal (1965).[18]

[16] An interesting dimension of *Apple Shrine* was the prevalence of the smell of apples as they decomposed.
[17] Which also utilised food as symbol as well as sculpture.
[18] Dr Barbara Kirshenblatt-Gimblett offers and excellent overview of the use of food in performance art in her essay, *Playing to the Senses*.

What these examples of food in artwork have in common is an almost universal neglect of the employment of the flavours embodied in the food being utilised, nor an acknowledgement of those flavours' cultural significance. Conversely, in some instances in molecular gastronomy the appeal to the chemical senses is of utmost importance. Works such as chef Eneko Atxa's dish, *Caricia del Mar* (Caress the Sea), conveys his intimate relationship with the distinctive Basque seaside and its importance to him as a chef. While this sort of expressionism is beautiful in many ways it also introduces another obstacle, that being the lack of cuisine's intentionality as art. Arthur Danto defines this characteristic of conceptual art as "embodied meaning"[19], as resulting from the artist's intention; most famously, evidence of this can be found in the transformation of a common urinal into an iconic art object in Marcel Duchamp's *Fountain* (1917). When considering the preoccupation of modernist chef René Redzepi to realise the ideal of "*deliciousness*"[20] [21], chef Thomas Keller's statement, *"...to make people happy. That's what cooking is all about.*"[22], or food writer Anthony Bourdain's explanation that, "Chefs, ultimately, are in the pleasure business – not in the business of proving – above all other things – their unique brilliance."[23], then an absence of the intentionality for cuisine to be received as art becomes apparent; and yet, this act of intentionality is the starting place through which art is achieved. In the words of art critic Ben Davis, "*Arguably, the modern definition of the "artist" comes alive at exactly at* [sic] *the point where "art" is elevated above mere craftsmanship -- the birth of the artist-as-intellectual is the thrust of Vasari's The Lives of the Artists.*"[24]. If molecular gastronomy is being used to compose artwork then it is essential that a mature artistic concept which engages the chemical senses lies at its core and that there is a deliberate intention that the piece be received as art, so as not to mumble at the fringe of artistic discourse.

Two examples of the use of flavour in contemporary art come to mind. Oskar Dawicki's interactive performance, *The Anatomy of Bad Taste*, presented at the 2011 European Congress of Culture, Wrocław, employed distaste in an act of provocation. At the event, canapés were served which appeared beautiful but were subtly distasteful; as guests tried to remove the unwelcome tastes from their mouths by replacing them with flavours from different canapés the distaste only compounded. The event worked conceptually at two levels: first, it artistically demonstrated Dawicki's contempt for the formalised art industry, as many art professionals were present in the audience; secondly, the invocation of the culturally learned emotion of disgust, which serves to safeguard the rational human from the human beast[25], became the ironic impetus for celebration among the people that the event was intended to slight. The second example, the interactive installation *Aether* (2012) by artist

[19] Danto: *After the End of Art*
[20] Redzepi: "*Rene Redzepi: the science of 'deliciousness'*"
[21] Perhaps derived from the scientific propositions that 'pleasantness' is a primary "natural axis of maximal discriminability among biologically relevant molecules" (Khan, et al. 2007)
[22] Keller: *The French Laundry Cookbook*, p. 2
[23] Bourdain: "*The Human Factor*"
[24] Davis: "*In Defense of Concepts"*
[25] Rozin: "*Food for Thought: Paul Rozin's Research and Teaching at Penn*"

Alfonso Borragan, utilised edible gases in a celebration of 'trapped experiences'. As guests mingled through the rooms at Slade School of Fine Art they were offered various taste experiences. Standing installations of breathable flavoured vapours evoked emotions and memories of things familiar; meanwhile, passed novel flavour experiences were offered by waiters in the gallery spaces. As these flavours were respired by guests the air in the room was vacuumed and sealed into a compressed steel cylinder, capturing the communal flavoured breathe of the participants in bottled form. This concept worked because it evoked strong memories and associations through non-visual flavour encounters and preserved the ephemeral nature of taste by entrapping the impalpable, ethereal experience in a vault of permanence. These two examples provide insight as to how flavour can be utilised both through the use of cuisine as well as in its absence.

A Scientific Foundation for an Art of Taste

While artistic discourses surrounding the appropriateness of taste in art progressed from Greek antiquity through to the present, scientific thought regarding the senses (which served to ground the logic of such discourses) remained largely unchanged through the Middle Ages to the end of the seventeenth century. Aristotle believed that the heart was the "*seat of and source of sensation*"[26]; The Greco-Roman physician Galen (AD 129–213) reinterpreted Aristotle's ideas by placing cognition and sensation in the brain in a three-ventricle model. As the scholar Francois Quiviger explains, "Aristotelian philosophy served as the operating system of this hybrid construction, Galenic anatomy as the hardware and the Hippocratic theory of blood spirits and humours as the data transmitter."[27] Evidence of the prevalence of this model can be seen in Leonardo da Vinci's anatomical sketch, *The Ventricles of the Brain and the Layers of the Scalp* (c. 1490-94).

During the Scientific Revolution (1550-1700) the employment of new tools and methods of investigation in science (specifically in chemistry), such as the use of the balance and mathematical calculation, began to transform our understanding of the mechanics of the senses; ironically, the same procedures which illuminated the senses also shifted the methodologies of chemistry away from qualitative investigations towards a dependence upon these calculative tools. Professor of history Lissa Roberts says of Lavoisier's approach, which established the pedagogy of the 'new' chemist in the eighteenth century, "the deployment of chemists' bodily senses was subordinately tied, almost to the point of invisibility, to laboratory apparatus that yielded evidence in the form of quantitative measurements[28]. The result of the "Death of the Sensual Chemist"[29] was the editing out of sensual

[26] Gross: "*Aristotle on the Brain*", p. 247
[27] Quiviger: "*The Sensory World of Italian Renaissance Art*", p. 15
[28] Roberts: "*The Death of the Sensuous Chemist*", p. 108-109
[29] *Ibid*

intuition in the formalised practice of chemistry (as well as in other sciences) until the reappraisal of sensory data in the embodiment movement, and more recently, in the 'sensory turn'[30].

Spearheading a reinvigorated global push into the understanding of the chemical senses in society, the Monell Center in Philadelphia is a post-modern realisation of Sir Francis Bacon's utopian *Salomon's House*[31], embracing both applied and empirical science in a comprehensive vetting of these senses. At the Monell Center, world-class biochemists, geneticists, neuroscientists, psychologists, behavioural biologists and a host of professionals from other hybrid disciplines have combined their efforts to decode the chemical senses. A major breakthrough in this research came as recently as 1991 when neuroscientist Dr Richard Axel and biologist Dr Linda Buck[32] published the first paper describing a family of about one thousand genes for odorant receptors[33]; in 2004 they were jointly awarded the Nobel Prize in Physiology for the discoveries of "odorant receptors and the organization of the olfactory system". While the mysteries of how the chemical senses work are quickly unravelling, part of the reason for the rapid pace of these discoveries is its long period of neglect, owing to the seeming unimportance of these senses in modern life; a better understanding of the contribution of these senses, a push towards cognitive technologies[34], as well as crisis in both food supply and public health are now forcing a re-evaluation of this degradation.

This emerging scientific knowledge is important for art theory because it allows for a determination of the validity of the chemical senses in art to be grounded in fact, rather than in speculation. During a visit to the Monell Center in Philadelphia in 2012, behavioural biologist Dr Leslie Stein explained to me how, for our primordial ancestors which were devoid of eyes, ears and hands, our entire orientation in the universe was negotiated through our chemical senses; attraction to mates, fear of danger and food acquisition were entirely navigated by way of chemical sensory perception. Perhaps it is for this reason that these senses evoke such strong emotional responses in us and why we have chemical receptor throughout our bodies. During that same visit, cognitive neuroscientist Dr Johan Lundström explained how olfactory information interacts with each of the other sensory processes within the brain and how 'crosstalk' between the senses can drastically alter perception.[35] These kinds of insights contribute to a better understanding of how the chemical senses might be utilised in the creation, understanding and appreciation of an art of taste. Perhaps the greatest area of potential for tasted art lies in manipulations of flavour-value associations within a shared demographic group, as well as with the stimulation of olfaction (through taste or smell) to trigger familiar memories. As

[30] See Asifa Majid / Sephen C. Levinson: *The Senses in Language and Culture*, for a discussion regard the sensory turn in social sciences research in the context of language.
[31] Bacon: *New Atlantis*
[32] Not associated with the Monell Center.
[33] Buck / Axel: "*A Novel Multigene Family May Encode Odorant Receptors*"
[34] Consider the recent DARPA-IBM SyNAPSE programme which aims to develop cognitive computers which include a capacity to 'taste'. (IBM 2012)
[35] Cited with permission, Monell Chemical Senses Center (2013)

scientist continue to explain in mind-boggling detail the mechanics of sensory perception the onus for evaluating the validity of these senses in art rests upon philosophers and artists; now in possession of ample scientific knowledge to explain the 'how' and 'what' of taste perception the questions of 'why' and 'so what' become a gauntlet for art. New knowledge requires new thought, as well as new ways of thinking about old knowledge. A problem with our break-neck speed of discovery is that it does not avail much time to consider, where reactions to new information can become dogmatic exercises of knee-jerk taxonomy, rather than anticipation, during a pregnancy of possibilities.

Semantics of Taste

We live in a symbol-rich society. In order to engage in society fully we must learn to interpret visual symbols, associations between familiar objects and semantic ideas; from a very young age we recognise that a symbol of a dove may refer to peace or that the image of a cross may infer Christianity. The nineteenth century Symbolist movement in visual art elevated the already commonplace use of symbols to a philosophical system; however, the same treatment has never been applied to flavour, an absence which has stunted its semantic development. Semantic flavour associations are not taught in western culture and have rarely been documented or scrutinised. In fields such as linguistics, anthropology and ethnography, sensory data is only now being considered in formal analysis after decades of nearly universal neglect. Yet, semantic associations with flavours and smells are not only possible, they are commonplace. The smell of bleach may evoke an association with sterility or the flavour of curry may evoke ideas of 'Indianness'. These associations seem to become even stronger when the flavours involved are manufactured, where flavours such as those of toothpaste or cough syrup are unmistakable and meaningful. In Massimo Montanari's book, *Food is Culture*, he asserts that "*[through food choice] food takes shape as a decisive element of human identity and as one of the most effective means of expressing and communicating identity."*[36] In our present era we are not only selecting food from nature but we are creating new flavours and foods that do not exist in nature in order to suit our preferences. Flavour chemists have created an entire alphabet of flavours; through chemistry and scientific notation a language for taste has become possible, as mimetic and semantic as the colour palette is in visual art or musical notes are in sound composition.

A critical issue for the use of flavour semantics is that of documentation. While food choice may infer culture this deduction is not intuitively bound to our senses – that is, we do not know with our mouths what we know in our minds. We must now document the evidence that already exists and utilise these associations in artwork in order to reinforce these existing semantic associations.

If Art, Then What?

[36] Montanari, *Food is Culture*, p. xii

Until documented evidence of semantic associations with flavours exists and more examples of artworks which utilise taste are produced, then the verdict on taste's validity in art is still pending. If, however, 'tasted art' does prove its worth within the art industry then there are some issues that ought to be considered. First, there is a question of pedagogy; in the case of molecular gastronomy, science-minded chefs very often do not possess the disciplinary knowledge and artistic paradigm required to produce strong conceptual art, while artists often lack the technical expertise to produce molecular cuisine. Additionally, there are very few options within either gastronomy or art education which combine these two disciplines. To add to this, a suitable presentation style for the use of molecular gastronomy in art has not yet been found; restaurants are not ideal venues to present artwork and the gallery is not equipped to cater to the requirements of molecular gastronomy. If a gallery were to be equipped to showcase molecular cuisine as art then a suitable presentation style would also have to be devised, allowing for both the communication of the concept as well as the participation of the audience. [37] These challenges to industry practice should not be viewed as obstacles but rather as opportunities for the art industry to facilitate residencies, curriculums and exhibitions in service of a dynamic medium that plays richly into multimedia practice with graphic design, sculpture, material design (i.e. glass and ceramic) and science-art, to name but a few.

When considering tasted art beyond the use of cuisine[38] then certain issues associated with utilising novel technologies arise. In the past, flavour manufacturers have been notorious for their secrecy. Recently, flavour manufacturers have emerged from behind their notorious firewalls of seclusion, however, the intellectual property rights for the most recognisable flavours remain buried under legal protections; this means that while conceptually some art projects may be possible, practically it may become implausible[39]. An additional challenge for such artwork is that edible, flavour-neutral 'delivery systems' for chemical flavours can be illusive and limiting. While there is an increasing range of possibilities for delivering flavours in artistic ways, the application of manufactured flavours has most often been applied in the industrial production of processed foods and creative options may be limited for the time being. Regardless of these limitations, the application of designed flavours presents an exciting and untouched realm of exploration for the adventurous artist.

What does an art of taste have to offer?

The art of taste is a medium which exploits emotions and memories; it comments on cultural and subcultural group identities, rituals in everyday life, places in space and time, and the sacred and profane. Through abstract associations flavour can be used in contemporary art as diversely as any

[37] This touches upon the on-going discussions regarding the future of the museum. A good jumping-in point for these discussions are the Art Basil panels entitled "*The Future of the Museum*", beginning in Miami (2002), continuing in Basil (2002/10), and later being hosted in various locations internationally.
[38] Specifically, artworks which utilise manufactured flavours and food science materials.
[39] See Geoff Tansey / Tasmin Rajotte: *The Future Control of Food*.

artistic medium – to vet contentious issues, to subvert established norms and ideas, or to unveil possibilities and ideals. Most importantly, the inclusion of the chemical senses in art reintegrates the disembodied sensorium in culture, permitting art to comment on the entirety of the human experience, rather than only that which the eyes can see and the ears can hear. Validating the importance of the dimension of taste and smell through art also opens new doors of possibility for the participation of new industries such as flavour manufacturing, food science and gastronomy in arts practice, bringing with them new ideas, mature infrastructure, knowledge and skill contributions, and capital flows.

An additional possibility arising from this line of reasoning is that the application of the critical analytical tools of art and aesthetics could be applied to gastronomy, offering an academic framework to evaluate and consider developments in haute cuisine. The existing practice of food critique is much in need of an academic framework to structure its theoretical and applied development and to guide public discourse surrounding cuisine in constructive and critical ways.

Conclusion

There are 'birth pangs' that would seem to indicate that a non-visual art which utilises the sense of taste is imminent but there remains much work to be done in anticipation of its arrival. In order for an art of taste to become accepted it must be made conceptually, technically and logistically compatible with existing art practice. To its benefit, the inclusion of 'tasted' art would introduce new academic fields of inquiry, programming possibilities which facilitate strong public engagement, new industry linkages, and would strengthen participatory exhibition formats within galleries. Conversely, the introduction of artist' residencies, gallery exhibitions, performances and critical studies in cuisine which engage molecular gastronomy have the potential to transform the food and beverage industry. While molecular gastronomy may play a role in an art of taste, the potential for the inclusion of flavour chemistry, food science and related technologies offers exciting and limitless possibilities. Beyond these structural inclusion, the greatest benefit of such artwork would be the conceptual acceptance of the chemical senses within the philosophy of art, which would bring restoration to the divided human sensorium and facilitate expressions of art capable of inquiry into the entirety of the human experience; including inquiries that require a non-visual language for which visual art is unable to provide answers.

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