

Metaphrasis, Metamorphosis, and Traitorous Translations: A new taxonomy of relationships between architecture and gastronomy

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Transfer of knowledge and/or methodologies among areas of specialty is not an uncommon phenomenon in disciplines. Architecture has been borrowing terminologies, models, and frameworks from biology, neuroscience, computer science, and other disciplines, in order to develop a specific theory or design approach. However, the aforementioned disciplines rarely (if ever) borrow architectural theories or models. One case, where this transferal is bi-directional is that of the gastronomy and architecture pair.

Gastronomy and architecture, as well as music, film, design, and technology, belong to a cluster of creative disciplines and practices that seem to form more and more what Richard Florida calls the Creative Class (1). The popular Do-It-Yourself (DIY) culture (2) along with "the rise of the amateur" trend (3) result towards the "end of audience" era (4): the passive TV-man of the sofa transitions to an active (multi-tasking) internet-man. More people are interested and involved in creativity and the process of making. Architecture and gastronomy also participate in this creative fever: they have both entered popular culture through reality shows, home and decoration magazines, and TV-episodes.

Beyond creativity, architecture and gastronomy are linked to our contemporary era through the broader request for sustainability and ecology. In past times, or perhaps in some "exotic" islands, the materials used for food and structures are not that different: dry leaves for huts (architecture), and humid leaves to wrap food (gastronomy). But even in contemporary manifestations of Western culture, there is an effort to embed natural materials in buildings in the form of green rooftops, planted facades and so on. In parallel, in food science (and food art), there is a trend to emphasize edible containers that reduce trash.

The pursuit for a healthier lifestyle in cities and urban settlements often associates the edible with freshness and the local. Architects, urban designers, and planners address this need with the frequent appearance of edible landscapes, like urban agriculture, vertical farming, and farmers' markets through un-built design proposals and actual interventions in the city.

Can one trace the influences within the aforementioned parallelisms between architecture and gastronomy? How much do they stay intact after their mutual exchange?

Architecture <-> Gastronomy

In this essay I argue that the influences between architecture and gastronomy grow in many levels and scales. In order to classify this emergent taxonomy, I borrow from literature (5) the concept of translation. Translations, varying from literal to free, offer to architecture and gastronomy transactions, a possibility of categorization. Through a series of examples from architecture or/

and gastronomy, I map the taxonomy around three translation types: literal (metaphrasis), transformative (metamorphosis), to open and free (or what Umberto Eco calls traitorous translations) that grow in complexity, and interconnectedness. The complexity in translations involves the tools (e.g. vision, taste, and multi-sensorial apparatus) with which one perceives and creates them, but also the (in)tangibility of traits found in the creations. Eventually, I show that the increasing interconnectedness of the two disciplines implies that traditional boundaries between disciplines may no longer be valid, or useful.

A. Visual Metaphrasis

The taxonomy of the transactions better starts by borrowing the lens of a literal translation, such as metaphrasis. This Greek word *μετάφραση*, deriving from *μετά/ meta* (=after, what follows) and *φράση/ phrasis* (=phrase) emphasizes a literal interpretation to the initial source: the phrase, for literature and languages; and the visual appearance, for architecture and gastronomy. Not only architects and culinary chefs, but also clients and users of architecture, as well as connoisseurs and consumers of edible creations first observe and judge the artifacts through vision. It is not uncommon to encounter examples of buildings or structures that look like foods and cakes, and pastries that have shapes and forms of buildings. One can baptize these creations as visual metaphrases (6).

In Greg Lynn's Ravioli Chair for Vitra, the visual metaphrasis translates food into architecture (7). Apparently, one of Lynn's (probably first) digital sketches (e.g. meshing) came out of a ravioli form! (8). To further extend the discussion on pasta, architecture, and process, one can take a look at *Pasta by Design* book by George L. Legendre, and Stefano Grazini where a visual analysis in mathematical terms and methods is being offered to the readers. Sequence, precision, form generation, hidden logic(s), and familiarity of everyday objects bring rigor to architects' design and process. Would cooks and pastry chefs, or culinary artists search for rules, and structures in architecture too? The answer is probably yes. Evidence on chef's fascination in the form of food (and presentation of dish/ plate and table) can be found in high-end restaurants in different cities globally.

A good example of a bi-directional visual translation is the gingerbread house: From architecture to gastronomy and vice versa, acting either as an edible structure (tale), or an "architectural" dessert (culinary). Gingerbread houses have been populating the culinary realm for a while. Lately, this trend has migrated into the architectural production through quick architectural competitions (9.) Crank House by Over,Under is an architectural project that has been translated into gingerbread house at the recent competition at Boston Society of Architects (BSA) (10).

The visual metaphrasis in this case extends from the idea generation,



to a representation, and finally to the gingerbread house or edible model (house for display). According to the creator of the edible model (and Over,Under partner) Chris Grimley, this is an example of a synthesis. Grimley reports the enjoyable cooking-process (11): For research, he looked at Martha Stewart, and for technical supplies he looked at Crate + Barrel. Steps included trial and error, “a little bit of alcohol and crying in between,” and fancy final details (such as the “snow” effect) together with some regrets (“never make icing again”). Any architect who has been involved in the making of a physical model can be empathetic to the making of the edible Crank House. What about the architectural client or user? Do they enjoy the volume stacking and shifting that eventually creates a separation between living and sleeping? (12) And the eater? Is the separation of different uses, accompanied by separation in tastes for the two edible volumes (in terms of ingredients, composition, and densities)? And what about the architectural critic, or the taste connoisseur? In such cases, one wishes to have multiple experiences, living in or visiting the house, and eating the cake.

Pastry desserts and architecture have a long history together beyond the gingerbread. One of the first people to create such metaphrasis was Parisian chef Marie-Antoine Carême. Being a respectable father of French cuisine, Carême was responsible for the catering of Napoleon’s wedding in 1810, and was also the chef for the Prince Regent in England for two years. Carême used architecture for his inspiration to present food visually (13). In his *Le pâtissier Pittoresque* (14) published in 1815, one can find numerous sugar creations of architectural projects that justify the sculptural and artistic attribution (15). In the case of Carême, it has been architecture to inspire the design of food (confectionery).

In the case of architecture, the literal is not always welcomed in educational experiences or design critiques. Probably the same happens in the culinary arts: who would be interested in tasting a food that has the exact form of an architectural creation, such as the latest Gehrization? (16) Gastronomy, deriving from the Greek γαστρονομία, beyond γαστήρ/ gastér (= stomach), includes the word νόμος/ nómos (=law). The focus on the laws and rules of the stomach suggests the need to move beyond the vision, perhaps towards form and taste.

B. Taste Metamorphosis

The word metamorphosis, originally coming from the Greek μεταμόρφωση, is known through biology and Franz Kafka’s famous book, *The Metamorphosis* (17), literally means “transformation”. By dissecting with its etymology, which breaks into μέτα/ meta (meaning change or after), and μορφή/ morph (meaning form), one can suggest that the word itself is a meta- morphosis/ transformation of the aforementioned meta-phrasis. The word shifting, from phrasis to morph, gradually builds a process within the taxonomy of architecture- gastronomy translations, by emphasizing the change of form.

Transformative processes of the edible medium can become more familiar if one observes how the same ingredients taste differently when they are processed to different textures or forms. As home chef Monet Banihashem reports (18):

...form is inherent in cooking. A soup isn’t a soup unless it’s

liquefied and takes on a certain consistency. A mirepoix will not cook evenly unless the carrots, celery and onion are chopped uniformly. In baking, the form of a finished good is indicative of correct methods: if a cake does not rise because you used too large of a pan or too much chemical leavener (baking soda, baking powder), then you may not discern that the finish product is a cake, let alone edible.

Banihashem believes that most of the chefs think and work with form unconsciously, unless they belong to the avant-garde ones, being driven consciously by form, such as Grant Acatz, Ferran Adria, or René Redzepi. Form and taste coupling is also familiar to architects and spectators of architecture. In this case, it is the appreciation, and pleasure of architecture that is associated to taste.

The Architecture of Taste

One of the “conscious” form-taste gastronomical experimentations comes through molecular gastronomy. Molecular gastronomy is a term and discipline that came out of the experimental practice of Hervé This in collaboration with Nicholas Kurti, and was accompanied by a conference in 1992. In *Molecular Gastronomy* (19) a cook is often compared to a chemist Hervé (20). This reports about the transformations of traditional culinary practice: “...Molecular gastronomy may seem a pompous name. Nonetheless it is well chosen. Gastronomy is not a cuisine for the rich, as it often supposed; it is what might be called a reasoned discourse about food...To designate the specifically physicochemical exploration of culinary transformations, it makes sense to characterize such research as molecular.”

Architect and theorist David Ruy, in his popular “Lessons from Molecular Gastronomy” essay (21), presents this new discipline to architects and discusses the transformations by emphasizing the creations of a new experience (22):

...Yet despite the material repercussions of culinary innovation, the most important contribution of the molecular astronomic concerns the transformation of our subjectivity. When the diner says, ‘I’ve never tasted anything like this before!’ we are witness to life redefined.

The transformation of subjectivity, as mentioned by Ruy, can be the purpose of a creator both in architecture and gastronomy. Beyond molecular gastronomy, “construction of taste” has been central to the recent public lecture and tasting event, “The Architecture of Taste” at Harvard Graduate School of Design (GSD) with Pierre Hermé (23). For Hermé, ideas about pastries come from desires, readings, and observations; there is no need for him to execute, or even taste the pastries. In fact, Hermé makes diagrams with notes for other chefs, instructions similar to architects’ representations. Hermé envisions scenarios of taste: what comes first, what comes second, and so on.

Hermé’s diagrams are not about form. They are about taste, proportions of taste, and compositions of taste. For example, once Hermé discovers an interesting particular taste, like that of the Bulgarian Rose, he constructs Ispahan, a series of different types of pastries, like Baba Rose (traditional cake with Ispahan taste), Milfeuille Ispahan, Cheesecake Ispahan, Sorbet Ispahan, Noel Ispahan, and so on. These types are not iterations of the same taste; they are “different re-interpretations.” In this line of products or

family in which each pastry has its own personality, the following thing occurs: the construction of taste changes, but the harmony among the flavors stays the same. Similarly, in *Infiniment Citron* family of desserts, each pastry has its own personality; each highlights a specific situation, such acidity, or bitterness.

Hermé emphasized how timing is crucial when mixing tastes (before biting the pastry): it creates a completely different experience. For example, when he started working with the Macaron, he realized the importance of the cream in-between. In this cream, he added some flavors. Instead of mixing the flavors in the cream, he inserted them as chunks that would release their flavor during the chewing. Instead of creating a sensation or effect, through this process he offered a surprise. He expanded this to other desserts, to create a library of tastes (example the Cassis Macaron). Hermé also showed a series of chocolates, in which their shape and size affected the taste. Such manipulations of the ingredients define the tectonics of taste.

The decision of selecting Hermé, a pastry chef to be part of the prestigious design lectures, signifies the expansion of architectural education’s potential limits, and begins to show more overlap with gastronomy and culinary art (24). The visually appealing creations of Hermé are presented as constructions of taste. This indicates a direction where (design) form is even more strongly linked with taste. What comes first and what comes second? The form or the taste? Can architecture also construct taste, either this being the “character” of space, or its liking and appreciation by the subject?

Traitorous Translation or Experiencing the Edible Events

The aforementioned emphasis in taste through textures, shapes, materials, and so on in architecture and gastronomy, extends to other cases where even more intangible characteristics shape the event. The presence of the immaterial may cause untranslatability to some extent. Untranslatability is probably common in the case of prose or poetry. However, for some, every translation may be “problematic.” According to Umberto Eco (25):

Perhaps the Pure Language does not exist, but pitting one language against another is a splendid adventure, and it is not necessarily true, as the Italian saying goes, that the translator is always a traitor. Provided that the author takes part in this admirable treason.”

The more recent appearance of edible events, even those initiated by architects, or chefs, or collaborations between the two, allow for more free interpretation. Instead of the prose or poetry, it is usually the social, the collective experience, the habits, or the memory, which are needed to construct these traitorous translations.

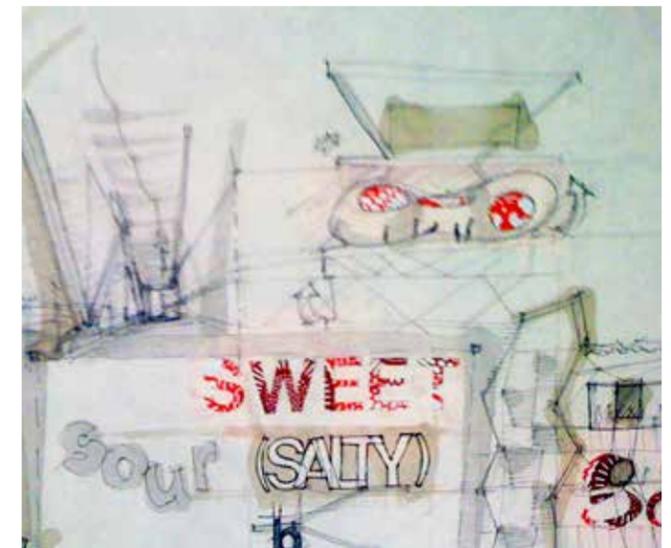
The Social Menu

The lecture “Food and Architecture: A Parallel Process,” (26), given by architect, educator, chef and restaurant owner, Alberto Cabré, mentions a series of process that appear in both architecture and food. Out of those, he emphasized the informal (experience), the interactivity between dining and kitchen, the home feeling, and the social:

Food rituals, including preparations and meals, and architectural programs, and situations evolve around the



^ Over,Under | Crank House



^ Benjamin Bruce | *Symphony of Flavors* [Food Museum] in Zenovia Toloudi’s Tectonics studio

social. Food shapes, and textures, as well as food spaces, including composition of tastes, and spatial atmospheres they all affect the customs, and habits and the sensorial experience of both the individual and the crowd.

Originally an architect, Cabré, as a response to the financial crisis that hit his profession, created a series of in-formal dinners in his living room. The experiment lasted two years and it later transformed to what is known today as CasaB restaurant. Cabré, who is a major orchestrator behind both the interior design and menu of the restaurant acknowledged the social (27) as an essential element behind the restaurant's success. The construction of a collective experience, in which the form of the food and space, taste of the menu, and appreciation of the architecture (even if it is ephemeral) are all shared among participants.

Another architect and chef, Mariela Alvarez, shares her social menu through the blog medium. Her connection to the crowd comes through a series of (blog) posts that are simultaneously recipes and experiences (28):

As architects we build experiences using walls, color, and sound, as chefs we build experiences using temperature, flavors, and textures. The difference lies in the tools used in the immediacy of the rewards...I see every recipe and every post, as an opportunity to tell a story.... it is always nice to know when people actually make the recipe, I am choreographing their experience of interacting with a set of ingredients that will later be enjoyed in the company of others.

Initially, Alvarez started cooking as an opportunity to play, but also to escape from architecture. She eventually found herself applying more rigor into her food creations (29).

Madeleine (Cake) and Fictitious Memory

An invisible parameter that shapes the social, spatial, and edible collective experience is that of memory. Marcel Proust introduced memory neither as an objective notion nor a fixed thing: memory is full of fictions, errors, and even lies. In the famous episode of the madeleine, Proust offers a theory of memory depending on taste and smell (30) that further supports the idea of food and space being connected to memory. The taste of madeleine and the smell of tea (as well as the act of hearing) offer a channel for Proust to reach his childhood. In this Proustian nostalgia, the cake and the childhood, as parts of the past, appear better than they actually were (apparently he never liked the cake when he was a kid). In *The Omnivorous Mind* (31), neuroscientist John S. Alen considers memory one of the four reasons that humans like to eat crispy food. For him it reminds him of ancient times where people would eat insects and raw vegetables, among other things. How can foods or edible experiences (such as the madeleine cake and the crispiness), be used in design to create spaces that link users and spectators to familiar spaces, neighborhoods, cities, or pleasurable experiences?

Spatial Food

How can architects evoke memories, and the desire to link to one's past or/ locality? Smell and taste are two of the least frequent senses to be used in spatial and structural generation. *Three States of Hors d'Oeuvres* (32) by Project on Spatial Sciences was an experiential installation/ exhibition that unveiled an entirely new kind of experience that fused both food and space. The exhibit consisted of



four transparent chambers filled with foggy clouds of vaporized food. Each cloud was characterized by a different color of light as well as a unique smell and taste: lemon-cardamom (green), barbecue (orange), bonito fish (pink), or vanilla-maple (blue) all linked to local flavors and specialties strategically picked in collaboration with local gastronomists (from an epicurean market called Savenor's). Upon arrival, visitors were handed a tray with different solid and liquid foods, which they consumed while moving through the chambers and breathing the various clouds. What emerged was a spatial form of food consumption, whereby the space in which visitors stood mingled and interacted with their eating and drinking experience. Many of the visitors expressed nostalgia by linking the distinct food cloud with local memories, such as experiences by the sea, or events, such as family barbecues, and so on. The olfactory mechanism, through memory and reminiscence, constructed both experiences and the spaces.

To understand people's participation in the art-piece or event, one needs to include an ethnographic approach to design that acknowledges relationships of media with the audience, which are addressed by Sonia Livingstone (33). Through the "ethnographic turn," Livingstone shifts the focus away from the textual interpretation, towards what she mentions as contextualization of the moment, involving cultural elements of everyday life, rituals and communicational practices, among a list of others (34). In this third categorization of transactions between architecture and gastronomy, such cultural elements and rituals are integrated in the edible and spatial experience.

Beyond Translations

The "contextualization of the moment" as mentioned by Livingstone, coincides along with globalization and the need to address the big scale, both in architecture (through landscape, geography, policies, etc) as well as gastronomy (through food systems, healthy nutrition, food justice, and so on). The taxonomy of translations, as overviewed in this essay, is being presented in three levels: the visual (metaphrasis), the taste transformations (metamorphosis), and the multi-sensorial edible events (traitorous translations). One wonders, what would be the fourth level of the taxonomy that includes the aforementioned bigger concerns? Projects like the recent Meat House of Terreform One, being both a victimless shelter, and a real organic dwelling; the well-known Seed Cathedral by Thomas Heatherwick, in which the seeds become the symbol to connect space to ecology and the planet; and the emergence of Food Banks as storages of seeds against global crises, imply the need to create new typologies of artifacts that are co-creations and co-productions out of different disciplines.

To understand and categorize the hybrid projects, one can borrow Bernard Tschumi's triangulation of concept-context-content (35.) This triangulation avoids oversimplification and allows for architecture and gastronomy to create new typologies. These may address food networks and clusters, the food production line, as well as traditional forms of space, such as that of courtyards, or underground structures, in which the emphasis shifts to void, roots and seeds. This allows one to imagine a culture of slow food, which could potentially create slow architecture. Through such projects the boundaries between traditionally defined disciplines start to blur. The overlap and shared disposition between architecture and gastronomy is constantly growing, further confirming their taxonomical relationship and validating the displacement of the concept of translation.

^ Project on Spatial Sciences | *Three States of Hors d'Oeuvres*, Lab at Harvard, 2010, Photo credits: Evangelos Kotsioris (top), Jeneile Egbert (bottom two)

Notes - References

From page 12. "The on-site architect: Millimetric translations in construction" by Johnathan Foote, PhD.

1. Vasari, recounting the words of Michelangelo, Vasari, Vite (Milanesi 1906: VII, 270). Translation by author.

2. Alberti, De re aedificatoria 2.26 (Rykwert, Leach, Tavernor 1988: 3); translation slightly modified by author. Rykwert, Leach, Tavernor (1988) render the final line as, "the carpenter is but an instrument in the hands of the architect". However, a more correct reading of the Latin is: "the carpenter's hands (fabri manus) are but an instrument to the architect".

3. Mario Carpo (2011). *The alphabet and the algorithm*. Cambridge, Mass: MIT Press, pp.137. Marvin Trachtenberg has upheld the criticality of Alberti's theory in our current chasm between designing and building in Marvin Trachtenberg (2005). *Building outside Time in Alberti's 'De re aedificatoria'*; RES: Anthropology and Aesthetics, 48, pp. 125; Marvin Trachtenberg (2010). *Building-in-time: From Giotto to Alberti and modern oblivion*. New Haven: Yale University Press; and Marvin Trachtenberg (2011). *"Ayn Rand, Alberti and the Authorial Figure of the Architect"*, California Italian Studies: University of California. pp. 6-8.

4. Carpo 2011: 26; Carpo's notion of original and copy should be situated among his work in the evolution of architecture during the rise of the printed image in the 16th century, his topic in Mario Carpo (2001). *Architecture in the Age of Printing*, translated by Sarah Benson, MIT Press: Cambridge, Mass. In this work he argues that the wide-spread distribution of the mechanically reproduced, printed image led to a nominalization of architectural knowledge. For a recent rebuttal of this see Michael Waters (2012). *"A Renaissance without Order: Ornament, Single-sheet Engravings, and the Mutability of Architectural Prints"*, Journal of the Society of Architectural Historians, Vol. 71, No. 4, Special Issue on Architectural Representations 2 (December 2012), pp. 488-523.

5. To make this argument, Carpo relies on a deterministic tie between media, technology, and culture. From this, the recent shift from identical copies (mechanical reproduction) to algorithmic variety has opened up space for a new kind of digital craftsman. Serial objects are not related by sharing identical shape but through a common 'body plan' or genetic origin, thus giving infinite variety within a common, parametrically driven model.

6. Andrew Saint (1993). *Image of the Architect*. New Haven: Yale University Press, pp. 42.

7. Saint 1993: 42.

8. Jean-Louis Cohen, in his introduction to Le Corbusier, *Toward an Architecture* (Goodman 2007: 22).

9. "...la fraction de millimètre intervient", Le Corbusier, *Vers une architecture* (Goodman 2007: 243).

From page 20. "Curious Architecture: Translation of Technologies and their impact in the future of Architecture and Design" A conversation between WAR, Andrew Payne and David Pearson.

1. Marshall MacLuhan's *Understanding Media: The Extensions of Man (1964)*

2. Patrik Schumacher's *Parametricism as Style - Parametricist Manifesto* (2008)

From page 62. "Entramados" by Francesco Stumpo

1. Morgan, David, extract from *"Secret Wisdom and Self-Effacement: The*

spiritual in the modern age" *The Sublime*. Cambridge, MIT Press 2010.

2. Barthes, Roland. *"Semiology and the Urban."* *Rethinking Architecture: A Reader in Cultural Theory*. Neil Leach. London: Routledge, 1997.

From page 76. "Lost and Found: John Hejduk and the Specific Autonomy of Drawing" by Robert Cowherd.

1. K. Michael Hays, "Hejduk's Chronotope (An Introduction)," *Hejduk's Chronotopes*, ed. K. Michael Hays (New York: Princeton Architectural Press, 1996), 7-22.

2. K. Michael Hays, "Critical Architecture: Between Culture and Form," *Perspecta* 21 (New Haven, The Yale Architectural Journal, 1984), 15-29.

3. The list of academic leaders coming out of The Cooper Union, we add Kyna Leski (class of 1984) at the Rhode Island School of Design, and Jeffrey Hou (class of 1989) at the University of Washington. Criswell Lappin, *"Hejduk's Legacy: A Great Teacher's Influence Reaches Far and Wide,"* *Metropolis* (August/September 2003), 122-23.

4. Kenneth Frampton, *Modern Architecture: A Critical History* (London: Thames and Hudson, 2003).

5. The notion of "reflexivity" grows out of a series of "Second Modernity Seminars" taught since 2003. See: Robert Cowherd, "Notes on Post-criticality: Towards an Architecture of Reflexive Modernisation," *Footprint: Delft School of Design Journal: Agency in Architecture: Reframing Criticality in Theory and Practice* 4, <http://www.footprintjournal.org/issues/show/5> (Spring 2009), 65-76.

6. Lauren Kogod points to this expansive interpretation of "critical architecture" as a "disciplinary Anschluss" annexation of what the editors and others would see as decidedly outside its discourse. K. Michael Hays, Lauren Kogod, Michael Osman, Adam Ruedig, Matthew Seidel and Lisa Tilney, "Twenty Projects at the Boundaries of the Architectural Discipline Examined in Relation to the Historical and Contemporary Debates over Autonomy," *Perspecta* 33: Mining Autonomy, eds. Michael Osman et al. (New Haven: Journal of the Yale School of Architecture, 2002), 68-70.

From page 80. "Metaphrasis, Metamorphosis, and Traitorous Translations: A New Taxonomy of Relationships between Architecture and Gastronomy" by Zenovia Toloudi.

1. Florida, Richard. *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*. Basic Books, 2004.

2. One of the first appearances of DIY in academia has been probably the "Instant House" by Prof. Larry Sass, MIT, also presented at MOMA.

3. The author concludes the essay by presenting the characteristics of the professional amateur, lacking disciplinary precision, making exceptions to rules, generating knowledge by elision, contingency and essentially converting what is considered as "outside" context, "inside" one. In Shumon Basar, *"The Professional Amateur" in Miessen, Markus Shumon Basar, and Hans-Ulrich Obrist. Did Someone Say Participate? An Atlas of Spatial Practice* (The MIT Press: 2006), 33.

4. Sonia Livingstone and Ranjana Das try to understand the transition from the man sitting on the sofa and watching TV (then) to the man sitting on the sofa and multi-tasking (now). Passive television audience is no more relevant in the digital times since Internet users are more active. At the same time it is impossible to distinguish when someone is

part or not of an audience since audiencing is dispersed and embedded in many social activities. In Livingstone, Sonia and Das, Ranjana. "The end of audiences? Theoretical echoes of reception amidst the uncertainties of use." Paper presented at the Transforming audiences 2 Conference, University of Westminster, September 3-4, 2009.

5. The following paper is based on material presented at the "Lost in Translation?" Graduate Symposium at WIT Architecture organized by Marc J. Neveu, January 2013.

6. Metaphrases is the plural form of metaphrasis.

7. Many thanks to Marc J. Neveu for giving this reference.

8. Rappolt, Mark. Greg Lynn *FORM*. New York: Rizzoli, 2008.

9. BSA Space. "Exhibition // Community Design Resource Center (CDRC) Gingerbread House Design Competition." Last accessed October 1, 2013. <http://cdrcboston.org/what-we-do/gingerbread-design-competition/>

10. Architizer. "The Most Delicious Designs From Architizer's Gingerbread Competition!" Last accessed October 1, 2013. <http://www.architizer.com/blog/the-five-most-delicious-designs-from-architizers-gingerbread-competition/>

11. a. Find recipe. Look on Martha Stewart. Find one. <http://www.marthastewart.com/339021/molasses-gingerbread-cookie-dough>
 b. Go around Boston looking for sugar canday to decorate with. Got to Crate and Barrel and buy cookie cutters.
 c. Make elevations of all aspects of the house.
 d. Try initial test of cutting out elevation and bake. Doesn't work.
 e. Bake larger sheets, etch elevation in. Use microplane to shave pieces down to size.
 f. Drink.
 g. Make icing. Twice. Based on this recipe: <http://www.marthastewart.com/284120/royal-icing>. On tasting it too often, never make icing again.
 h. Slather icing on house, realize this was a mistake. It's never going to look like early morphosis models.
 i. Cry a little.
 j. Compensate by adding many little trees, a lot more frosting.
 k. Dust with icing sugar for 'snow' effect. "

12. Grimley, Chris, e-mail message to author, January 11, 2013. "...Crank House takes a simple stacked program and shifts both the living and sleeping areas to create a porch on the entry level, and a small roof deck for the uppermost floor..." In overcommaunder. "Hometta." Last accessed October 1, 2013. <http://www.overcommaunder.com/?/work/Constructs/Hometta/>

13. Lynes, Andy. "La Carême de la Carême." Last accessed October 1, 2013. <http://www.historytoday.com/andy-lynes/la-car%C3%A4me-de-la-car%C3%A4me>

14. Carême, Marie-Antoine, and Allen S Weiss. *Le pâtissier pittoresque*. Paris: Mercure de France, 2003.

15. Pinnick, Avital. "On Desserts and Deserters: A Note on Victorian Banquets." Last accessed October 1, 2013. <http://apinnick.wordpress.com/tag/careme/>

16. According to John F. Sherry Jr. the brand provides simplicity that results to a cultural nationalism, what is called McDonaldization, Coca-Colization, and Disneyfication. In this line of thought, one can add Zahization, Gehrization, and other demo nstrations of architectural nationalisms. In Toloudi, Zenovia. *"Architectural Taste and Identity: Experimenting with PICANICO game*. Doctoral Dissertation, Harvard University, 2011.

17. Kafka, Franz. *The Metamorphosis*. Translated by Ian Johnston,

Lindenhurst, NY: Tribeca Books, 2011.

18. Banihashem, Monet, e-mail message to author, October 9, 2013.

19. "...We needed a name for what we were doing and for the symposium itself. I proposed "molecular gastronomy," but Kurti, as a physicist, feared that this assigned too much importance to chemistry [since some culinary transformations can be explained macroscopically], so we finally agreed on "molecular and physical gastronomy...." In This, Hervé. *Building a Meal: from Molecular Gastronomy to Culinary Constructivism*. New York: Columbia University Press, 2009. p.11-12

20. Kwinter also discusses tectonics together with chemistry: "These two forms of expression, chemical and tectonic, are of exactly the same order of physical reality. It is a testimony to the diagram's action that such diverse properties can be called up and released. And it is no small revolution in design to have apprehended this simple but critical fraternity." In Kwinter, Sanford. *"The Judo of Cold Combustion"* in Atlas of Novel Tectonics, 2006

21. A summary of the lessons learnt: Lesson 1: Technique is Promiscuous, Lesson 2: Methodology is an Unnecessary Burden, Lesson 3: Technology is Poignant when Sublimated, Lesson 4: Experience is Multimodal, Lesson 5: Orthodoxies must be Challenged, Lesson 6: It's all Good. In Ruy, David. *Lessons from Molecular Gastronomy*. Ed. Mark Foster Gage and Florencia Pita, Log 17, NY: Any Publications, 2009.

22. Ibid, page 32.

23. Pierre Hermé, "The Architecture of Taste." Lecture at Harvard Graduate School of Design, Cambridge, MA, November 27, 2012.

24. Hermé also discussed his single one collaboration with a designer to construct the dessert that also appeared in the event's poster. Ibid.

25. Eco, Umberto. *A Rose by Any Other Name*. Translated by William Weaver. *Weekly Guardian*, January 14, 1994.

26. Cabré, Alberto, "Food and Architecture: a Parallel Process." Lecture at "Structural Bites" course, Wentworth Institute of Technology, Boston, MA, November 5, 2012

27. Despite a series of reasons (such as creativity, precision, use of materials/ ingredients, having a final product/ outcome, existence of an audience, use of layers, packages) that link gastronomy with architecture. Ibid.

28. Alvarez, Mariela, e-mail message to author, October 9, 2013.

29. Tasty Plan. "Grilled Summer Salad." Last accessed October 9, 2013. <http://tastyplan.com/post/56732352337/grilled-summer-salad>

30. Lehrer, Jonah. *Proust Was a Neuroscientist*. Boston: Houghton Mifflin Co., 2008.

31. Allen, John S. *The Omnivorous Mind: Our Evolving Relationship with Food*. Cambridge, Mass.: Harvard University Press, 2012.

32. Project on Spatial Sciences, "Three States of Hors d'Oeuvres." Exhibition at Harvard Lab, Cambridge, MA, October 7, 2010.

33. Livingstone, Sonia. "Relationships between Media and Audiences: Prospects for Audience Reception Studies" in Liebes, T and Curran, J. *Media, ritual and identity: essays in honor of Elihu Katz*. London, UK : Routledge, 1998, pp. 237-255.

34. "While the convergence of these five positions provided the major impetus behind reception studies during the 1980s, the recent 'ethnographic turn', which shifts the focus away from the moment of textual interpretation and towards the contextualization of that moment, draws into the frame a sixth tradition. This involves the detailed analysis of the culture of the everyday, stressing the importance of

‘thick description’ as providing a grounding for theory, together with an analysis of the ritual aspects of culture and communication (Carey, 1975) and the practices by which meanings are re/produced in daily life (de Certeau, 1984).” Ibid.

35. Tschumi, Bernard, and Museum of Modern Art (New York). *Event-cities*. Cambridge, Mass.: MIT Press, 1994.

From page 88. "Ponderland" by Scott Graham, Olivia Hegner, Kate Lux and Deborah Massaro.

1. Martin Heidegger, “Building, Dwelling, Thinking,” and “Poetically Man Dwells,” in *Rethinking Architecture*. Ed. Neil Leach, London: Routledge, 1997, 100-109 and 109-119

2. “Function and Sign: The Semiotics of Architecture,” in *Rethinking Architecture*. Ed. Neil Leach, London: Routledge, 1997

3. Terry Eagleton, *The Significance of Theory* , Cambridge, MA: Basil Blackwell, 1990, 24-38

From page 90. "Light: The Discovery of Poetry in Architecture" by Aaron Weinert.

1. Recognition in developing this exercise is given to Wentworth Professors P. Kendall, J. Lee-Michalszyn, I. Strong and Z. Toloudi.

2. Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses*. Wiley + Sons, 1996.

3. Le Corbusier, *Towards A New Architecture*, 1923.

4. Louis Kahn, “Silence and Light”, 1969.

From page 114. "Pending Restoration" by Liem Than

1."The Washington Monument Restoration." Michael Graves & Associates. Web. 23 May 2013.

2. Benjamin, Walter, and J. A. Underwood. *The Work of Art in the Age of Mechanical Reproduction*. London: Penguin, 2008.

3. Tafuri, Manfredo. Preface. *Architecture and Utopia: Design and Capitalist Development*. Cambridge, MA: MIT, 1976. Pg 9.

4. Venturi, Robert, Denise Scott Brown, and Steven Izenour. "Ugly and Ordinary Architecture, or the Decorated Shed." *Learning from Las Vegas: The Forgotten Symbolism of Architectural Form*. Cambridge, MA: MIT, 1977. Pg 87.

From Page 118. 'Lost in translation' by Marc J. Neveu, PhD.

1. Pèrez-Gomez, Alberto, and Pelletier, Louise, *Architectural Representation and the Perspective Hinge*. (Cambridge: MIT Press, 2000) Robin Evans, *Translations from Drawing to Building*. (Cambridge: MIT Press, 1997).

2. Hersey, George, *The Lost Meaning of Classical Architecture*. (Cambridge: MIT Press, 1998).

3. Rand, Ayn, *The Fountainhead*. (New York: Penguin Books, 1971): 681

4. Eliot, T.S., “Philip Massinger,” *The Sacred Wood*, New York: Bartleby.com, 2000.

All Content

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