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 terminological, 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 transference 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] resist towards the “end of audience” era [4]. The passive TV-man of the solo translations 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 involvement of farmers, 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 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)tractability 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, 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 metaphasis translates food into architecture (7). Apparently, one of Lynn’s (probably first) digital sketches (e.g. mushing) 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, 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 (sensual). 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 metaphasis in this case extends from the idea generation,
...form is inherent in cooking. A soup isn't a soup unless it's
when they are processed to different textures or forms. As home chef
familiar if one observes how the same ingredients taste differently
architecture- gastronomy translations, by emphasizing the change of
suggest that the word itself is a meta- morphosis/ transformation
μορφή/ morph (meaning  form), one can
μεταμόρφωση, is known through biology and Franz Kafka's famous
The word metamorphosis, originally coming from the Greek
happens in the culinary arts: who would be interested in tasting a
beyond the gingerbread. One of the first people to create such
volumes (in terms of ingredients, composition, and densities)? And
between living and sleeping? (12) And the eater? Is the separation of
Architect and theorist David Roj in his popular ”Lessons from
For Hermé, ideas about pastries come from desires, readings, and
architectural programs, and situations evolve around the
Between dining and kitchen, the home feeling, and the social:
Perhaps the Pure Language does not exist, but pitting
"problematic." According to Umberto Eco (25):
"I've never tasted anything like this before!" we are witness
to life redefined.

B. Taste Metamorphosis
The word metamorphosis, originally coming from the Greek
translates as "synthesis. Grimley reports the enjoyable cooking-process (11): For
research, he looked at Martha Stewart, and for technical supplies
model (and Over,Under partner) Chris Grimley, this is an example of
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
gastronomy is not a cuisine for the rich, as it is often supposed; it is what might be called a reasoned discourse about food...To
designers for creating physically what food's sensory transformations, it makes sense to characterize such research as
molecular.”
In the case of architecture, the literal is not always welcomed in
databases and design critiques. Probably the same happens in
culinary arts: who would be interested in tasting a food that has the exact form of an architectural creation, such as the
latest Gehryization? [16] Gastronomy, deriving from the Greek
ροφήνωσις, beyond ροφή/ gustar + stomach), includes the word νόμος/ norms (=law). The focus on the laws and rules of the stomach
suggests the need to move beyond the vision, perhaps towards form
and taste.

The Architecture of Taste
One of the “conscious” form-taste gastronomical experimentations comes through molecular gastronomy. Molecular gastronomy is a
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molecular.”
Architect and theorist David Roj in his popular “Lessons from Molecular Gastronomy” essay (11) presents this new discipline to
architects and discusses the transformations by emphasizing the changes of a new experience (22):
...Yet despite the material repercussions of culinary innovation, the most important contribution of the molecular gastronomy
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 Roj, 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 emisions
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 Citron family of desserts, each pastry has its own personality, each
each 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 citrus
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
(tasty examples 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,” [24], given by architect, educator, chef and restaurant owner, Alberto Cabré,
moves a series of models that appear in both architecture and food. Out of these, he emphasized the informal (experiential), 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
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 (29).

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 connected to memory. The taste of madeleine and the smell of tea and smell (30) that further supports the idea of food and space being memory neither as an objective notion nor a fixed thing: memory is collective experience is that of memory. Marcel Proust introduced madeleine and smell of tea, past or/ locality? Smell and taste are two of the least frequent 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 madeleine, Proust offers a theory of memory depending on taste, 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 as well as the act of hearing) offer a channel for Proust to reach his childhood.

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.

Spatial Food
How can architects evoke memories, and the desire to link to one’s past or/ locality? Small 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 were transformed 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.

Notes p. 124
Page from 12. “The on-site architect; Millimetric translations in construction” by Johnathan Foote, PhD.

2. Alberti, De re adiectoria 2.26 (Rykwert, Leach, Tavernor 1988: 3); translation slightly modified by author. Rykwert, Leach, Tavernor (1988) render the final line as, “...the carpenter’s hands (fabri manus) are but an instrument to the architect.”


5. To make this argument, Carpo relies on a deterministic tie between media, technology, and culture. From this, the recent shift from identical copies (Immaterial copies) to almost identical copies (Immaterial Variants) has opened up space for a new kind of digital craftman. Serial objects are not related by sharing identical shape but through a common body plan, a generic origin, the evolving invariants within a common, parametrically driven model.
7. Saint 1993: 42.
12. “Entramados” by Francesco Stumpo
17. Lauren Kogen points to this expansive interpretation of “critical architecture” as a “disciplinary Anschluss” annexation of what the editors and others would see as deviously outside its discourse. K. Michael Hays, Lauren Kogen, Michael Osman, Adam Rudding, Matthew Seidl and Lisa Ting. Twenty Projects at the Boundaries of the Architectural Disciplines 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 Society of Architectural Historians, 2002), 68-70.
20. One of the first appearances of DIY in academia has probably been the “Instant House” by Prof. Larry Sass, MIT, also presented at MOMA.
21. “...We needed a name for what we were doing and for the community, so we argued ‘molecular gastronomy,’ but Kurti, as a physicist, feared that this assigned too much importance to chemistry; some culinary transformations can be explained macroscopically, so we finally agreed on ‘molecular and physical gastronomy’.”
23. Kwinter also discusses tectonics together with chemistry. These two not in a close union, contrary to the practice of exactly the same order of physical reality. It is a testimony to the diagram’s action that such diverse propositions can be called up and released. And it is no small revolution that such propositions can be apprehended in the same way.
27. Despite a series of reasons such as: creative precision, use of material/ingredients, having a final product/ outcome, existence of an audience, use of layers, packaged that link gastronomy with architecture. Ibid.
28. Alvarez, Manuela, e-mail message to author, October 9, 2013.
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 mind a sixth tradition. This involves the detailed analysis of the culture of the everyday, stressing the importance of..."


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.


From page 114, "Pending Restoration" by Liem Than


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


