Alinea
Grant Achatz, with essays by Nick Kokonas, Mark McClusky, Michael Nagrant, Michael Ruhlman, and Jeffrey Steingarten
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Any food that is not eaten in its raw, natural state
requires the alteration of its molecular structure by a
cook, as in the roasting of goat (fire), the boiling of herbs
(water), or the curing of ham (air and salt). In On Food
and Cooking: The Science and Lore of the Kitchen Harold
McGee writes, “Foods are mostly built out of just four
kinds of molecules—water, proteins, carbohydrates and
fats. And their behavior can be described by just a few basic
principles.”1 The explicit manipulation of food by means of
elemental properties is fundamental to its most basic prepa-
ration, whether we’re talking about chefs inspired by the
cuisine at El Bulli, familiar dishes recreated with empirical
zeal by Alton Brown, or a mother’s home cooking.

This molecular manipulation can also be witnessed
in recipes that are geared primarily toward visual stimula-
tion and pleasure. In the fourteenth century a recipe in
the Secretum Philosophorum turned water into wine by
soaking bread in red wine, drying it, and then immersing
the bread in water.2 Melitta Weiss Adamson’s Food in the
Middle Ages: A Book of Essays also speaks to the mutability
of substance and form by illuminating a diverse and expan-
sive history of trickery in the kitchen based on “practical
jokes…often derived from treatises on magic, chemistry,
and warfare.”3 She mentions Penn & Teller’s How to Play
with Your Food, which cites numerous precedents in culi-
nary tomfoolery. This sort of culinary trickery was widely
practiced much, much earlier and includes their own
“Swedish Lemon Angel” cookies, in which lemon juice and
baking soda combine to “create an unexpected avalanche
of lemon-egg foam mixture.”4 As the research of Harold
McGee and others has shown, even the culinary trick of
imitating snow by creating a basic egg foam has a long and
diverse history.5

All of these transformative practices in the kitchen
relate back to alchemy, that medieval art of transforming
something common into something special by a transmu-
tation that appears inexplicable and mysterious. Alchemy
was intimately connected with art, literature, science, and
philosophy; its virtue and legacy lie in its multidimensional
aims, its ability to connect a variety of disciplines that goes
beyond the transmutation of properties as a mere parlor
trick—manipulation for manipulation’s sake—for purely
practical results. The practitioner reads and interprets the
visual elements to find their metaphysical or philosophi-
cal basis that was previously unknown or concealed. Thus
alchemical texts were written primarily in a symbolic code
that relied largely on interpretation, as opposed to a mere
translation or duplication of rote knowledge.

The secrecy surrounding the processes involving
these materials and any grander, metaphysical aims
was maintained by means of visual codes. As Alexander
Roob discusses in his richly illuminated book Alchemy
& Mysticism: The Hermetic Cabinet, the chemist J.C.
Barchusen’s Elementa Chemicae constituted a series of
more than seventy-five engravings intended to explain
how to create the Philosopher’s Stone (gold): Normal gold
is represented by a lion; a dragon represents mercury; a
descending bird indicates the distillation of mercury; the
activity of work is represented by a dove; and a “mysterious
black material” is represented by a toad.6 Many of these
same alchemical recipes were also used to create the actual
pigments used by artists. In Prometheus Ambition William
R. Newman reminds us, “Alchemy had long preserved the
very recipes for pigments that were the daily bread of those
who composed their own painting media.”7

It is no coincidence that representations of alchemy
in art, such as medieval Austrian court painter Jehan
Perreal’s The Alchemist Talking with Nature (1516), should
illustrate “Nature advising the aimlessly wandering
The use of the mortar and pestle, crucible, alembic, retort, and sand bath were not uncommon. What distinguishes alchemy from a mere manipulation of molecules is the ability of the manipulator to see beyond the realm of the visible and understand the potential and meaning of elements beyond their immediate use and comprehension. Suggesting that alchemy is a process of discerning, clarification, and purification, Roob begins his picture of the laboratory as a scene for combining and purifying elements that would elevate the human experience. In the legend of the elixir of life, for example, the libation was believed to have the power to reveal truth or wisdom to the one who produced and consumed it. In the sixteenth century this belief led alchemists to create *aurum potabile*, drinkable gold, as well as a liqueur called Royal Usquebaugh, “a saffron-colored spicy liqueur containing actual flecks of gold leaf.” Given the need to heat, liquefy, cure, distill, and vaporize herbs, spices, grains, meat, and dairy products in the medieval kitchen, the use of the mortar and pestle, crucible, alembic, retort, and sand bath were not uncommon.

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volume with a quote from Democritus (also attributed to Bolos of Mendes) from *Physica et mystica*: “It will be apparent that it is difficult to discern which properties each thing possesses in reality.”10 The pre-Socratics used the elements of earth, fire, air, and water to explain the essential components of the natural world and to answer, in part, the philosophical question, “What is?” But deciphering the metaphysical qualities of these four elements involved observing their effect on each other and on other materials found in the natural world. Roob explains how Aristotle, in attempting to understand the transmutation of elements, added the idea of a *prima materia* that would “combine with the four qualities of dryness, coldness, moisture and heat, thus developing the four elements...accordingly, the work of the alchemist lies only in the rotation of the elements.”11

This “rotation” of preexisting elements is, ultimately, the sole tool a chef has at his or her disposal. And so, with the publication of his book, *Alinea*, chef Grant Achatz’s approach to cuisine becomes visibly aligned with the aesthetic project of alchemy. The alinea, a medieval typesetter’s symbol suggesting the beginning of a new idea or thought, is certainly an obvious metaphor for the contents of the book. Within its pages Achatz’s interpreters and interlocutors attempt to translate the codes of his cuisine, the symbols that designate his new ideas and experiences. In owner Nick Kokonas’s aptly titled section “How to Use This Book” he writes: “here is a way to approach food, to think about life, to evoke an idea. The experience is singularly yours. Enjoy it as you make it your own” (p.37).

Fully in the alchemistic tradition, and using food as his *prima material*, Achatz has deliberately created vehicles for interpreting and understanding his cuisine (p.27). By means of eGullet and now the Alinea Mosaic, a Web-based experiment that is “experimental, uncontrolled and ever changing” (p.49), he has carefully documented his process, not for the sake of duplication, but for the edification of those who take the food arts seriously. As he writes in *Alinea*, “What you hold in your hands is our interpretation of [the dining experience] in book form...By intent, we left much open to interpretation” (p.49). This approach makes sense, given the fact that even Achatz’s process is rooted in a deliberate form of creativity that could yield an unforeseen outcome. To explain this thought process he considers “what ingredient, what manipulation, and how many permutations. The equation becomes more complicated, and usually takes a few wrong turns, before we find the answer. But it all boils down to the same logical process that can only be identified in hindsight” (p.28).

The volume resembles an alchemical text in its ambition and idiosyncrasy. Like many cookbooks, it comes with glossaries of equipment (ranging from everyday tools like a spice grinder to Pacojets and an Antigriddle) and of ingredients (from the Asian staple, agar, to the Pure-Cote b790). With their postmodern bent these lists of ingredients and utensils might appear to fashion the volume as more of a scientific manual. But that’s not the case at all. The information is not presented simply to enable others to duplicate Achatz’s cuisine, using mechanization for mass production; that is not part of his project. Instead, he guides us through a process that melds science with the rigor of constant and voracious practice and application: experimentation, not just technological innovation. After explaining to readers how he used Achatz’s Hot Potato, Cold Potato, Black Truffle, Parmesan recipe to inspire his own home-friendly version of the same, Kokonas writes, “Experiment first and worry about the technology later” is a primary rule of the Alinea kitchen, and it should be yours as well” (p.38).

The spirit of experimentation, the foundation for the singularity of each dish and dining experience, is best explored by Achatz in the “avenues and approaches we use to conceptualize dishes” (p.28). Instead of just thinking about the chemical components of each item, he is equally committed to nature (where food comes from and how it arrives, and how the essence of an ingredient can be understood by pairing it ironically with other ingredients) and art (how the form of food is mimicked and experienced on the plate). These notes introduce the reader into a complex world with its own language and imagery; the goal is not instruction, but interpretation.

In his essay, “Experiencing Alinea,” Jeffrey Steingarten is quick to note that in his culinary experiments Achatz eschews the smoke-and-mirrors tricks of a magician. His reversals are more considered than clever. Describing a spherical egg yolk injected with flavor, Steingarten notes, “Grant has left the old calcium chloride/sodium citrate spherification trick in the dust” (p.8). Although he likens Achatz’s cuisine to a “spiritual experience,” Steingarten doesn’t fetishize the chef’s technique but, rather, explores the philosophical underpinnings of his work (p.8). Mark McClusky, products editor at *Wired* magazine, begins his essay by offering a dialogue with Achatz about parsley sauce. To make his own version of the sauce McClusky “would take parsley and purée it with olive oil, let it sit for awhile to infuse the color and flavor of the herb into the oil, and then strain it.” Grant smiled. ‘Then you’d have parsley oil. It will taste like parsley and oil” (pp.15–16). Achatz wants something that tastes like the herb without losing the visual
made peanut butter and wrapped in a micro-thin sheet of bread toasted with a heat gun is unfamiliar. Or is it? Its more banal manifestation is actually a staple, often tied to strong childhood emotions: the peanut butter and jelly sandwich. Reaching for affect beyond the scope of novelty, Achatz’s contemporary alchemy in the kitchen reflects the power of emotion, chemistry, and a philosophical need to reorient our relationship with food.

As part of a lineage that includes sous vide practitioner Bruno Goussault and mentor and French Laundry proprietor Thomas Keller, Achatz is well versed in the idea of the new. But in some ways he is part of a much older historical tradition, one that uses the manipulation of food’s essential properties to yield a better and more profound understanding of both the dining experience and the food. To see Achatz’s project solely as postmodern technological innovation or even as yet another example of experimental fare fails to take into account a conscious philosophical commitment to the methodology, language, and optimism of the alchemic tradition.

But magic should not be confused with fantasy or novelty. Kokonas writes, “We challenge our guests to think and reflect on the meal even while it is happening…[m]ost restaurants seek to help their guests momentarily escape from engagement. We insist on the opposite” (p.37). Michael Ruhlman captures the essence of Achatz’s project as aesthetic when he states, “[A]rt is something else. It entertains, it provokes, it makes you think, and it can change the way you view the world” (p.4). Indeed, because aesthetic experience is not only about beauty, but about something sublime—something that lifts one out of one’s self—Ruhlman really gets to the heart of Achatz’s cuisine: “And so it is to my own surprise that I find myself using those very words of art to describe a meal at Alinea. How many chefs intend to make a diner feel uncomfortable?” (p.4). The aesthetic experience of Achatz’s cuisine ultimately becomes sublime in the eighteenth-century sense, in that as the act of dining lifts both the amateur and the expert out of a familiar zone, forcing them to reevaluate the very experience of eating. As Steingarten asserts, “Grant is like a painter whose palette includes every color and every flavor in the world, every flavor in the mind. I think I’m getting overwrought” (p.13). He points to the ways in which Achatz uses familiar ingredients, dishes, and vapors in deliberately unfamiliar fashion to evoke and perhaps challenge the basic ways in which the diner evaluates his food (memories, tastes, forms). A course consisting of a peeled grape dipped into tempered home-made peanut butter and wrapped in a micro-thin sheet of bread toasted with a heat gun is unfamiliar. Or is it? Its more banal manifestation is actually a staple, often tied to strong childhood emotions: the peanut butter and jelly sandwich. Reaching for affect beyond the scope of novelty, Achatz’s contemporary alchemy in the kitchen reflects the power of emotion, chemistry, and a philosophical need to reorient our relationship with food.

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NOTES
4. Ibid.
11. Ibid., 15.