As told to Lily BartleElliott Cost, 3938 words.

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On making things nobody asked for

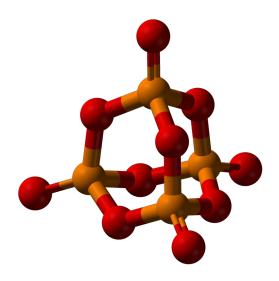
Sean Raspet discusses the corporation as a form of artistic practice, Nonbar prototype 2 (with sesame seeds), and scent rights. Elliott: We've been thinking about the corporation as a form of artistic practice, could you talk about the pros and cons of working under a branded identity like Nonfood or Fume, and how that differs from working as Sean Raspet?

Sean: I think there's a blurry line between the two. For me, Nonfood has always been a part of my art practice. But, of course, there are three other people involved and it means something different to each person. One of the cons is that it's just very hard to start a business, to get your initial customer base, and to get to a point where it's self-sustaining. It's the same with art, but developing a business requires a different type of work.

One of the pros is that it has the potential to go beyond the art world, which is something I'm very interested in. I've been somewhat frustrated by the lack of reach that the art world has. I'm interested in producing things that have an ecological or financial footprint and can become part of the daily lives of people who may not have anything to do with the art world.

Elliott: You've been paired with Francis Tseng for your Seven on Seven collaboration, can you tell us a little bit about what you two are working on?

Sean: Our project relates to phosphorus, which is something I've been researching for a while now, and came out of my interests in algae and designing a better food system. One of the food system's biggest challenges is that there is a limited supply of phosphorus in terms of easily accessible deposits, but virtually every living organism has and needs phosphorus. Without it, soil couldn't produce the increased agricultural yield that we require today. That's the background of the project.



$\verb+https://en.wikipedia.org/wiki/Phosphorus. The tetrahedral structure of P4O10 and P4S10.$

One part of what Francis and I are working on is an algorithm for predicting the price fluctuations of phosphorus as a commodity that can then be used to speculate on and accumulate phosphorus. If this instrument were widely adopted, it could ultimately cause the market to reflect what I think is the true price of phosphorus, which is much higher than the current price.

We're still working out the final face and the other visual aspects of it, but right now our interest is in coming up with a good predictive algorithm to kind of play to market, and that goes back to the question of working in a more of a corporate space. It's clear that finance has colonized the art world many times over. That's just a condition of the art economy. But it doesn't happen the other way around, where artworks have any significant financial footprint. So that's another idea that we're working with, the possibility of a project actually influencing the markets and causing some sort of change in this vast pool of circulating capital.

As it happens, algae is very efficient at utilizing phosphorus, which is why you see algae blooms in places where there's agricultural runoff containing a lot of phosphorus. In that sense, the Seven on Seven project is related to our research at Nonfood. If phosphorus were to become more expensive, food sources that use less phosphorus, like algae, would become relatively cheaper compared to those that use a lot, like meat.

Elliott: Nonfood is both a product and an artwork. Could you talk a little about working between those?

Sean: That's a distinction that I'm very interested in. Nonfood was conceived as something that would be both an artwork as well as just a regular stand-alone product and company. We've been very lucky that a lot of art institutions like Rhizome and the New Museum have been interested in the idea and supported it. Right now at Sculpture Center, as part of the show "All 74 million, million, million tons" that just opened, there's a vending machine where people can buy the new version of the Nonbar. So it's great that art spaces are embracing it, but for me and the other people at Nonfood, the limitations of the art world are self-imposed and just not that exciting. We think it's much more exciting to make things that appeal to a wide audience, and that can become part of people's lives in a different way. Instead of being a work that you just see in a gallery or museum, you can consume and metabolize Nonfood, it actually provides for some sort of necessity. That's something that we're all very interested in.



Lily: I've been thinking about the entrepreneurial ethos as a characteristic of American capitalism. How seriously, if at all, do you take the entrepreneurial aspect of your work?

Sean: We actually went through an accelerator program for Nonfood, which is where they invest a little bit in your new company, and then take a bit of equity. It's a semi-educational program, but they also try to facilitate connections with investors and things like that. People in the art world tend to have a lot of ideas about what that space is like, or what start-up culture is like, but we found it to be quite different from what we assumed it would be. It was a very diverse group of people who were really open and nice. So we quite liked it.

There are also limitations to the entrepreneurial mindset. One limitation-and this is something where our position between art and business becomes an advantage-is the way that companies and new products are thought of. The development process is completely customer-focused. So, typically, when you have some inkling of an idea of what customers want, the next step is to go and interview a bunch of central customers and then formulate your product based entirely on what they want. The most likely way for a product to be commercially successful is by just giving people something they already want.

That's where we diverge from the typical business model. We start with a product that we want to see exist and make it. We don't ask people if they want it. From a business perspective, that's a little risky, but in order to make something interesting or something that actually has impact, then I think it's necessary. People aren't going to tell you to make something that doesn't exist yet because they don't have a frame of reference for it, and we differ in that philosophy.

Lily: The Limits to Growth, a 1972 report on an early computerized model for economic and population growth, concluded that if capitalist society persists, by 2072 food production will not be able to accommodate the global population. Do you view Nonfood, or algae-based products more generally, as a solution to this problem-not only of feeding a growing population but also disrupting capitalist conventions of production and consumption?

Sean: That's a great question. I'm not familiar with that particular study, but its conclusions are echoed by a lot of other studies and are definitely part of the conversation in the food space, especially in the more innovative, or thoughtful, part of the food space. The new benchmark is 2050, and given our expanding population and the wastefulness of the present food system, there will probably be some sort of crisis by then, if not sooner.

A lot of the problem has to do with the inefficiency of certain crops like beef. A cow is a really inefficient way of producing food because you have to feed it tons of food in order to get a relatively small yield, and of course all the food that you feed it requires water and fertilizer. CO2 is emitted from the tractor equipment, the fertilizer itself, and tilling the soil. So the total CO2 emissions of cows, which also produce methane, are very high. A lot of food companies are taking aim at that right now, targeting beef specifically because that's pretty much the most inefficient, but also the most popular crop.

Algae is certainly going to be a big part any viable solution to the looming global food crisis because of how efficient it is. It's a "primary producer," meaning that it produces its own nutrients from sunlight alone, as opposed to animal products, which are very resource intensive. It's also one of the oldest types of living organisms, so it's evolved over billions of years to be really good at thriving under different conditions.

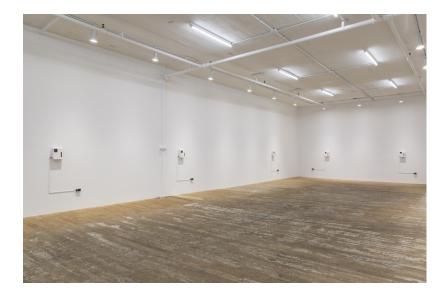
So we definitely see algae as a solution, and while I don't like to use the word disruptive, I think it would be certainly a paradigm shift if the majority of the food system were to use algae. The first step is to have algae-based products that are shipped to consumers, and of course for those products to have a smaller ecological footprint than other comparable products. But the next step would be for people to start growing it in their own homes. You can grow enough algae for every meal of the day using a setup about the size of a mini fridge. That sounds far off, but once the technology develops enough, and people accept and actually desire to eat algae, then it would be possible for people to simply not buy food anymore.

The way that the system works now, food is made at a central point and shipped to people, but that wouldn't be necessary in a more distributed system of production. People already have home gardens, which are great, but unless you have a large amount of land, you can't really produce enough for every meal. With algae, you can live in an urban environment without a lot of space and still produce enough for every meal of the day. That would certainly change the way that food is produced and consumed, which is definitely something that we would like to see.

Lily: The point of Seven on Seven is to make something new. Have you given any thought to what newness means to you?

Sean: Yeah, that's interesting. It can mean very different things for people in different contexts. You could even argue that there is no such thing as something new. But I think one benchmark could be making something that no one asked for. That could be something new. And that goes back to the way a lot of products are developed now, where developers only consider what customers want and build that instead of something that could change people's daily lives. I think that could be a starting point.

Elliott: In your recent show at <u>Bridget Donahue</u>, some people were repulsed by some of the smells. How does your idea of "making something that nobody asked for" relate to your scent-based work? Do you plan on introducing scent into Nonfood?



Sean Raspet, Receptor-Binding Variations at Bridget Donahue. Photo by Gregory Carideo

Sean: We're actually planning to develop a fragrance, something wearable but not edible, so it would be a separate product. I think that'll be a new type of scent. In addition to Bridget Donahue, I had a show at the Artist's Institute where I debuted three new molecules, each with a different scent. In the space of chemistry, it's possible to make new things in terms of molecules that haven't existed before, that there's no scientific literature on, and that aren't in any database of previously existing molecules. So the three molecules at Artist's Institute are, in that way, new.

With Nonfood, we started off very excited about the idea of creating new flavors that are different than what people are used to, but we've stepped back from that a little bit. We're not doing vanilla or strawberry flavor, but were definitely trying to make it more consumer friendly at the same time. We were very excited about the different flavor variations we tested, and we still think they're very cool, but outside the art world, the average person is not necessarily interested in that. They just want something that they think tastes good.

So I would say we're shifting toward making things that taste "good." But within that category, there's still a lot of room to play and experiment. Our idea has always been to push the boundaries of taste and flavors in food products, but in the end, it's more important to have an algae-based product that the most possible people enjoy eating. It's possible to do that without going back to strawberry flavor, we're still trying to keep it a little bit abstract in that sense.

Elliott: The art world seems like such a forgiving space to make things. It's a little different than Shark Tank.

Sean: Yeah. Totally.

Elliott: Are there are any distinctive scents that you remember from childhood?

Sean: Yeah. Actually, there's two that really standout. One is my grandfather's camphor tree. You could take a leaf off it and tear it in half or fold it, and it would release this camphor smell. I really liked that smell a lot. There's also rubbing alcohol, or Isopropyl alcohol, which is kind of a bad smell, but it's also kind of good too. It's very strange in that way. Actually, a lot of the amber notes in perfumery are going for something that smells a bit like Isopropyl alcohol, but without the chemical aspects. It's a very sought after note.

Elliott: You've collaborated with artists like Amy Yao and Perfume Area, could you talk about how collaboration factors into your practice?

Sean: A lot of Perfume Area's fragrance reviews are of perfumes that are already out there on the market, but we did a project where they reviewed different flavor molecules that I selected. They tasted as well as smelled them, and then reviewed each molecule. That was a really fun project because so much of perfumery is about narrative, it's similar with art. It's not just the scent or the visual thing in front of you, but the whole story behind it. Perfumeries are very aware of that and are experimenting and doing interesting things in that way. In general, collaborating is great, especially when there is an alignment of interests, because you're able to realize a project that's maybe outside of your usual space of working, something you both wouldn't have done otherwise.

I worked with Amy for her show "Bay of Smokes" at Various Small Fires that was themed around toxic waste

and the Port of LA. We designed a scent by taking naturally occurring fragrance molecules—ones that are found in oregano, thyme, anise, and things like that—and putting them together in a way that smelled kind of toxic or artificial. It was fun to play with the boundary of what people consider natural versus synthetic, artificial, industrial, or something.

Lily: Since your work primarily circulates in the contemporary art world, is it challenging to talk about it with people who may not be as scientifically literate as you are?

Sean: It's definitely a challenge sometimes. Most of the exhibitions or projects that I do have documents that accompany them, which people can read as much as they want, or they can just not read and experience the work directly. One of the good things about scents is that it's possible for people to do that. You don't have to read the document, you can just go up and smell it and you're going to have a response.

The other aspects are discretionary. They're important for understanding the whole picture of the project, but they're not absolutely necessary. I think, in a way, that's how Nonfood works. On the one hand, it's a product that circulates on the market, and on the other hand, it's a collaborative art project. It's both things. In the context of art, people have certain knowledge that, in the context of buying a meal bar, people don't necessarily need to have, and that's fine. It has this double life. Some of my personal projects have a similar structure—the work has a life as a chemical compound, but it also lives as a smell that you can experience.

Elliott: It's highly accessible in that way, almost more accessible than visual work.

Sean: It's a very direct form of experience, and that's one of the things that drew me to olfactory artwork. You breathe in these molecules and they trigger receptors that send signals to the brain. It's bodily, but there are also many layers of information that can be added to that. It's very direct but, at the same time, can be kind of abstract as well.

Elliott: It's also sort of manipulative in a way.

Sean: Yeah, definitely. If you go into a shopping mall or an airport, there's all kinds of scents that you might not even notice, but they influence your buying habits. A lot of hotel chains have a signature scent that that gets circulated through the central air system. Shopping malls even have scent rights, which are kind of like air rights. Take Cinnabon for example, in addition to leasing floorspace, they also have to rent the scent rights to that area because they're going to be emitting their smell, and they wouldn't necessarily want a Bath and Body Works right next door.

Lily: That's fascinating. The idea of scent rights makes me wonder about intellectual property in relation to your work. Do you patent your molecules? Is that possible?

Sean: Yeah. In the case of the Artist's Institute, we are actually in the process of filing a provisional patent for those molecules. And that's very much part of the work. The Artist's Institute and the chemists I collaborated with to synthesize the molecules are part of Hunter College, so we're working with the Technology Commercialization Office at Hunter to draft those patents. The ideal outcome would be to sell them to a fragrance company for them to produce and put in their products. But we'll see, we have to convince someone to use them.



Sean Raspet and Christoph Salzmann, Water (Ice V Residue), 2018

It's a collaborative project, so we'll share the rights. This is common in the science and business worlds, but not as much in the art world. Most things are collaborations of some sort. My work is increasingly collaborative and often involves people outside the art world.

Lily: It's true that collaboration is kind of taboo in the art world. Institutions tend to prioritize individual artists. Have you ever encountered a situation where an institution resisted your inclination to collaborate?

Sean: Luckily, we haven't experienced that with Nonfood. But it's definitely a problem with the art world, especially in institutions. I've seen it happen in cases where a project is an even collaboration between a few different people but one of those people isn't an artist, so they don't really get full credit. A lot of art projects are collaborations, but it'll only say so in the supplementary text. Collaborators aren't usually listed alongside artists. I think that's the most straightforward way that these things get occluded.

When I'm collaborating with scientists, I always try to make sure they are listed as co-authors at the same level as me. For example, at the Artist's Institute I worked with Professor Shengping Zheng and his student Jing Wu to produce the molecules, so we're all listed as, for lack of a better word, the artists. But, unfortunately, that often doesn't happen. And when people research the work or write about it, that information can get even further lost. When a collaborator is only mentioned in a footnote, the review of that show might not mention them at all. It's like a game of telephone. Stuff just gets lost in translation, and it's always ultimately about a single artist.

That reinforces a whole mentality where people reading about a show only expect to hear about one artist. I think that's a real problem. In the business and science worlds, collaborators are usually mentioned very clearly. Of course, there are many cases where that doesn't happen, but compared to the art world, they do a pretty good job of giving people credit. It's unlikely that any big project is going to be realized by one person. Scientific papers often have three or more authors, and that's just standard practice. But, for some reason, the art world has a hard time thinking in that way.

Lily: I have one more question, which is that I'm fascinated by this idea of the art world kind of reverse colonizing finance, and I was wondering if you could talk about it a little bit more?

Sean: I think that there's definitely a realization, not just in the art world, but in the cultural sphere more generally, that the finance system is not working for the people that produce content, or works of art. People are trying to change this model and there's a lot of interesting stuff happening in that space. For the Seven on Seven project with Francis and Tarek Issaoui, who's been collaborating on my research up to this point, I'm interested in making an artwork, but I also want it to be something that functions in the world, for the artwork to actually change the commodity market for phosphorus in some way. Like I said, art has a pretty limited reach. There's a lot of great ideas about how to do things differently. But in the end, the physical embodiment of an idea in the form of the work is only seen by a few people. Maybe someone buys it, and then maybe it gets taken out of storage every 10 years for a show, but that just seems like kind of a sad life for artworks.

I'm trying to think of this work as an ongoing entity that has some sort of footprint in the real world or the financial system. Ideally, if phosphorus became more expensive because people became aware that it's a limited resource, the industry would start to conserve it by using it more efficiently.

I think that would be more aesthetically pleasing as well. It would be great if art, in this sense of redesigning things, could extend into spaces where aesthetics are not usually a consideration. The food system is a perfect example, if you look at the way things are done from an aesthetic perspective, it's terrible. To try to build something that is not only more rational but also more elegant is, I think, worthwhile. Of course, I don't know if we'll be successful, but that's what we're aiming for.

Sean Raspet recommends synthetic fragrance molecules:

Commercial name	CAS number	Molecular formula
Hydroxycitronellal	107-75-5	C ₁₀ H ₂₀ O ₂
Safraleine	54440-17-4	C ₁₂ H ₁₄ O
Elintaal	40910-49-4	C14H26O2
Okoumal	131812-67-4	C ₁₉ H ₂₈ O ₂
Nerone	31375-17-4	C ₁₃ H ₂₂ O
Z11 MIP	57345-19-4	C18H30O2
Aldron	68901-22-4	C ₁₇ H ₂₈ O

Azarbre	68845-36-3	C12H20O
Corps Racine	2110-18-1	C ₁₄ H ₁₅ N
Isolongifolanone	23787-90-8	C15H24O
Norlimbanol	70788-30-6	C15H30O

<u>Name</u> Sean Raspet

<u>Vocation</u> Artist, Co-founder of Nonfood

<u>Fact</u>



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