

Intro Music (00:00)

Ashar Mobeen (he/him) (00:17)

All right, hi everyone. Today we're in conversation with the lovely Gwyneth Chao, who's an artist and educator based out of New York, driven by an awareness of experimental possibility. Gwyneth's recent projects explore how material reconstitution can be informed by an ecological awareness and how transdisciplinary processes can generate new ways of knowing. Thank you so much for joining us today, Gwyneth. How are you?

Gwenyth Chao (00:41)

I'm good, I'm thrilled to be here.

Ashar Mobeen (he/him) (00:44)

Awesome. For our listeners, could you share a little bit about yourself and the work that you do?

Gwenyth Chao (00:51)

Where to start? I'm originally from Toronto, moved a bit in my life. And I think throughout these moves, it's been difficult, especially if they're long distances, to bring my art and studio with me. And I think that's where really my kind of interest and now obsession with being more ecological and thinking about the footprint of the work I make emerged.

So I work with biomaterials that are made from food refuse and we can talk more about that later. But my interest is really thinking about bodies and like these are sculptural bodies, installation bodies, but bodies in different spaces.

Ashar Mobeen (he/him) (01:38)

Interesting, and how did you first get into this little niche?

Gwenyth Chao (01:43)

So I guess it was really hard for me to say goodbye to a lot of the projects that had been exhibited and had been documented, especially if they were large scale. So I started thinking about what happens to art after its gallery lifespan. And a lot of it ends up in the dump, unfortunately, especially if it's fragile work that can't be transferred or if you're in a big city, it's always challenging to store large scale work. And I was thinking about how to divert my work from the dump. And that's where I kind of stumbled across working with organic and food-based materials that can then go in the compost bin.

Ashar Mobeen (he/him) (02:34)

One thing that's very evident throughout your body of work is the idea of materiality. Could you tell us more about that part of your research and also your interest in plastics and plastic alternatives?

Gwenyth Chao (02:46)

Yeah, so I think materials for me is what seduces me into starting a project. Like I come across a material and I think, "wow, there's potential for this to be so much more." And my first foray into working with plastic alternatives or organic materials is with this project called *Plasticity*. And I got involved with this because my family was preparing a dinner party and I was tasked to make a bunch of Vietnamese spring rolls and I was handling these rice papers that are edible. Usually it's a salad roll, you put vermicelli or vegetables in it. And I was quite awful at making the salad rolls, but I had a lot of fun playing with the materiality of how the starch absorbed water and how slippery it is and the inherent adhesive properties it had because it was starch.

So that became my first art project where I connected with local grocery stores and, it made me think about like, what is non-perishable or what we consider non-perishable in grocery stores, because I ended up finding this supplier who had a bunch of edible rice paper, but it had all expired, so they couldn't sell it. And so that's where I was able to kind of collect a lot of material to work with. And then through experimenting with this edible rice paper, that was kind of how I got into more experimental processes with food waste, essentially.

Ashar Mobeen (he/him) (04:23)

That's so intriguing. What other kinds of foods and food wastes have you worked with? And can you maybe tap into a little bit more about the experimental process with organic and food-based materials?

Gwenyth Chao (04:35)

So it's really hard to say exactly because I don't choose my materials. So often as artists, we go to the hardware store or the art store and we pick out the exact pigments or materials we want. And as part of my ethos to be more ecological, I just work with what my community is producing in terms of waste. So when I was in Vancouver, I partnered with the Strathcona Community Center where they run food programs.

And because their produce is donated, they also don't have a lot of choice in what they get. It just shows up, you know, on a Thursday every weekend. What is in the truck is what they get. And then they have a really lovely group of volunteers who then vet through the food, like, you know, picking out some of the mushier strawberries or picking out some of the lettuce leaves that are a little wilted before they get prepared into boxes.

So all the stuff that they actually take out is what I collect to make art. So on a week-by-week basis, it really depends. And then from there, I have this really short window, about 24 hours, to process all of this material into a different form so that it doesn't continue rotting. So imagine like slimy lettuce leaves. Usually I freeze those, and then later I can use that to make paper pulp. You know, mushy strawberries, I dehydrate them and then they become stable for storage in my studio until I figure out what I want to do with them. And then based on materials I collect and like once they're in that more stable form, then I conduct a bunch of different material experiments to see what possibilities are kind of hidden inside this, you know, food waste.

Ashar Mobeen (he/him) (06:28)

Wow, that is fascinating. Would you say that that's a very labor intensive process? And what kind of unexpected joys and/or challenges have you encountered?

Gwenyth Chao (06:38)

I would definitely say it's very labor-intensive. And another thing I think a lot about in my practice is notions of value. For example, we usually think of, you know, materials having a dollar value or like some kind of retail price. And because my materials can't really be bought from a store, it's about the labor and like the time and attention spent with, kind of transforming this waste into an art-making material. So some of the challenges are definitely that small window. Sometimes when I partner with the community center, they have a whole room full of like, asparagus that's really mushy. And I have to basically change that into something that's not smelly and like won't continue rotting in 24 hours before I also get other pests and problems in my studio.

But some of the joys, I think, really have been the smell, unexpectedly. Things that are stored, like even moldy strawberries that are dehydrated are so fragrant and smell so good. Another thing I've worked with in the past are eggshells. So, like eggshells that have been ground up actually smell really sweet when you open them. Or working with citrus peels, like clementine peels that then also get dehydrated and ground up. They smell amazing. They smell like something you can make potpourri out of. And you would never have been able to tell that at one point this was, you know, the outside of a mushy clementine that was no longer safe for like human body consumption.

Ashar Mobeen (he/him) (08:27)

Fascinating. So there's two things I want to sit with there. You mentioned the idea of transformation and then earlier on you had mentioned your project *Plasticity*, where you created biodegradable plastic sculptures. Could you walk us through that installation? The objects were made from tapioca starch, water, glycerin, and vinegar, also resembling common plastic household items. What significance do these familiar forms hold for you when they're crafted from such unconventional materials?

Gwenyth Chao (08:57)

So let me give you a bit of a backstory about how *Plasticity* came to be. So I had mentioned that rice paper project, which I forgot to mention the name, is *Amorphous*. And those were about seven feet long rice paper sculptures. So I had patched all these individual sheets together to create large forms. And one of the challenges was that some parts weren't very structurally sound, especially where I wanted to lean it against walls and stuff.

But I was kind of being a material purist in that project. And I was experimenting with glues or rice-based adhesives that could strengthen this rice paper. And that's how *Plasticity* emerged because I had experimented with all these different types of starch, like potato starch, tapioca starch. And then even once I had stumbled upon tapioca starch as something that was appropriate, I had experimented with six different brands of tapioca starch.

And what's interesting is that even though on the label, it will say, you know, the ingredient is cassava. When I applied the exact same recipe, each brand of tapioca starch produced different results. And that was again, where I got seduced and was like, this needs to be another project. And that's how *Plasticity* came to be, where this glue became this bioplastic casting material.

And I decided to past everyday household plastics that we would use because when I think about materiality and also about biomaterials, a common question I get is, well, what can this biomaterial do, like this leather or this bioplastic?

And in my mind, I think biomaterial research is such an exciting field that it really has the potential to be as malleable as how we use oil-based plastics. So you know when we think about petroleum-based plastics we don't usually ask well, "what form can it be?" because we understand that it can be molded into so many forms. It's such a versatile material and in many ways I think biomaterial research and bioplastic research can be applied the same way.

So in plasticity, I was experimenting with all the possibilities for form and for casting that this tapioca starch bioplastic could have. And it kind of became an occupational hazard. Like to this day, I see new plastic forms for juices or for bleach. And I'm like, I need to cast that shape. That's a new shape I've never seen before. And I want to see if the bioplastic that I've developed can hold that form. But I have to stop myself and be like, "okay, we're done with that project."

But during the height of that project, I had like four large garbage bins of household plastics that I had collected from, you know, what I consume in my household and what my neighbors and friends and family had consumed whenever there was a unique shape, they would pass it over to me and I would collect it and then create a form of it. And what's really interesting about that project for me is that what I had cast, the bioplastic shell of the original water bottle or cookie sleeve. That breaks down a lot faster than the original object. So it's almost like a ghostly imprint. And it led me to think a lot about how plastics break down or don't.

And in actually one of the exhibitions, I had an interesting conversation with someone who just popped in and he was saying that in his youth, he was told to go pick up litter and plastic from the Humber River as part of a community service. And he thought that all of the plastic sculptures in my exhibition were picked up from oceans or lakes around the Toronto area because the way that my bio plastic sculptures broke down, it mimicked the way that water wears away at plastic containers in the water. So like for a water bottle, the lip is always the first to degrade and break down. And like there were telltale signs of how the process of breakdown affects plastics in different forms.

Ashar Mobeen (he/him) (13:37)

I love the way how you describe the sculptures as these ghostly imprints. I think with the biodegradable nature of the creations, there is this ephemeral quality. So during an exhibition, do the objects change over time? And will they decompose entirely? And I suppose, how do you

balance this idea of permanence with decomposition in that whole process of making these objects?

Gwenyth Chao (14:03)

So it's interesting because I really see my work, especially since *Plasticity*, the current bodies of work, as living entities in a way that have agency and that respond to their climate. So depending on the gallery space or exhibition space even, they shift and change in ways that we maybe won't perceive if we visit the exhibition once. But if you visit at beginning of the exhibition versus the end of the exhibition, you'll have noticed that the plastic will warp and pucker and depending on how much sunlight it's been exposed to - if the gallery has windows, for example - it'll take on a different patina or with my recent biomaterials, this gelatin rope I make to install work, it will actually start stretching or shrinking depending on the humidity level and the temperature of the space.

So in a way, I see my work as having its own micro-agency and things are always changing. Recently, I had an exhibition at the Sunshine Coast Art Center in British Columbia. And at the beginning of the exhibition, I had let one of the sculptures that were breaking down, it's been exhibited a couple of times and I really felt it was time for it to rest or become something else. So I had put it in a tank with blue oyster mushroom mycelium, not because I wanted to grow mushrooms per se, but I was curious how the mycelium would colonize the materials in my sculpture since it's made from food refuse and how they would use that as a form of sustenance.

And what's fascinating is that at the beginning of the exhibition, it was, you know, this moist tank that was kind of damp. Like there wasn't anything super interesting about it, I would say. And simply two weeks after I had left and was no longer there, I had these really strange mushroom bodies fruit, but not the way that we normally consider blue oyster mushrooms to fruit. They were almost like antler forms and they were growing out of different parts of the sculpture and, you know, because we weren't monitoring exactly the humidity and the moisture levels of the tank you know they weren't plump and ready for eating like how a home mushroom-grower would want it to be but I found that really fascinating to think about different life cycles that work can have after its initial exhibition period and I think the breakdown for me is inherently part of the work. It's part of changing.

And you know, the mushroom example was one where I didn't feel that the sculpture could be reused in any other ways. A lot of times in my studio before the sculpture gets colonized by mycelium, I take other parts of the sculpture or other materials that I find fascinating, and then they take on new life forms.

So something that was in one sculpture can then be transformed and like materially become something else. Like a leather could become a rope that then becomes crocheted and then it becomes a different body or sculpture in my work. So I almost see the work as having different generations. So there's like, you know, sometimes a fusion of two different bodies sculpturally,

and sometimes it's an asexual reproduction where this is just the second generation of certain work.

Ashar Mobeen (he/him) (17:58)

Wow, that sounds so fascinating. I think renewal is, that society of renewal really mimics how nature works. In our previous conversation, you mentioned a goal of building a materials library. Could you talk a little bit more about how this process of renewal adds to that?

Gwenyth Chao (18:17)

Yeah, so I almost see it as like I have different materials libraries at play and it's a living library and that at one point I will have beets or watermelon rinds and at other points I will have, I don't know, the moldy asparagus or like the kale stems from someone's, you know, salad, something like that. So I kind of have two collections in the materials library.

One is what I call the gathered materials library. And this is the food refuse that I collect from my community. And depending on where I'm working and, you know, what my community is eating. So, you know, for example, one week I had a bunch of pomelo rinds because pomelo was just on sale in the local supermarkets. So I see my practice as being responsive in that way to the different economies and ecologies that exist all around us.

So that gathered materials library is where things are either frozen or dehydrated. That's usually the two forms that are a little more stable after I collect, you know, mushy, sometimes rancid vegetables. The other collection is the... I think I call it the like, transmuted library collections. I can't recall right now. It's just in my head, like a Lego box. And this collection of materials are things that I've experimented with from the first. So for example, one spring, I was really fascinated with cherry blossom petals because that's used as a flavoring in a lot of Asian cuisines as a, you know, delicate, sweet flavor. So I was collecting cherry blossoms off the curbs of the Vancouver streets and they got all dried and that material then goes through different experimental iterations. So one iteration is that I made a rope with it. Another iteration is that I made paper with it. Another iteration is that I made a composite and a leather with it.

So one material from the gathered materials collection can become multiple forms in the transmuted library collection. And I see the second collection as drawers that I can keep opening and inside each drawer is like a Lego box of things for me to build with. So depending on what experimentations I've done with different materials. So like, you know, coffee can have multiple forms, eggshells can have multiple forms.

This all gets put into little compartments. And then when I'm ready to build my sculptures, I take from this library. And it's always changing depending on what runs out, what I collect, the different iterations of forms and material forms, whether it's a paper or a leather or a composite or a plastic that I, you know, became interested in working with and trying to find a, I wouldn't say resolution, but maybe recipe for it. Cause something else that's very much, part of my process in developing the materials library is actually developing biomaterial recipes.

So in my experimentation, I'm quite methodical and almost scientific about how you know, how many grams of, you know, longan peels I put in here, or how many, what temperature is the water when I mix it with my food binder. And with all my notations, I then consolidate them. And my goal is to have kind of this documentation or book on how these recipes can be replicated. So if someone at home wanted to also keep all their lemon rinds after making tea, they could then dehydrate them in an oven and then grind it up and follow this recipe to make rope out of lemon rinds, for example.

Ashar Mobeen (he/him) (22:40)

Wow, okay, so first of all, the materials library sounds awesome. The Lego box analogy was great. The second thing I wanted to talk about is, so you mentioned the science and the methodology that goes behind the experimentation. Could you talk a little bit more about that? Like, how much research goes into the work that you're doing and how much is it just purely experimental and creative and you're just sort of mashing things together and trying to see what results from that?

Gwenyth Chao (23:06)

So I would say it really depends on the material I'm working with. Sometimes I'm more fortunate in that certain materials have had more research that's documented in scientific papers. So for example, when I was in Vancouver, I came across this research paper on edible bioplastics for food packaging that was developed out of the University of British Columbia. And in that paper, they actually had the exact ratios of you know, how many grams of blueberry pomace they use, all the different ingredients. And studies like that are very helpful because it's in a controlled lab environment. It's much more reproducible than, you know, the different varying factors I have in my studio.

So sometimes it can be very granular. When I'm looking at, for example, how polymer chains in chemistry, like affect a material's binding properties or how it dries and hardens and then kind of holds itself up. Other times it's very experimental. For example, I did a residency called *Alchemy* in Prince Edward County in Ontario and I was partnered with a farm and one of the materials I came across with the farm is called mizuna. So it's part of like the asparagus family. It can be used in salads and the flowers are edible but we don't actually use it to eat.

So I began collecting all these flowers from Blue Ribbon Farm and I couldn't find any research that had worked with mizuna flowers ground up before. So then in that case, it becomes me just experimenting with different binders that work with it, different ratios and the possibilities for this material. And I think like, over time, I have a pretty good grasp of materials can behave. So for example I learned the hard or interesting way that root vegetables don't make great paper because the fibers are just too short. So when I made a paper out of rutabaga scraps I pulled the sheet and it looked fine but then as it dried overnight it actually split really dry dirt does on a desert which became interesting in its own way.

But if you wanted strong paper that could be more robust, rutabaga was not the thing. And I kind of also learned that the hard way when I tried making paper from beets. So root vegetables in

general don't make good paper, but things like kale that are very stringy, like think about how we don't even eat the stems in our salad or things like lettuce or any of the fronds for vegetables make really good paper.

Things like garlic peels make amazing paper because you think about how plasticky it actually is when we take the peel off of our cloves and it actually becomes pretty difficult to turn into a smooth pulp if you wanted a smooth, strong paper. If you're okay with a coarser paper that had a bit more texture, that's a little easier on your machine or my blender. But you kind of come across trends for how materials behave and that is a bit of learning from the materials that guides me in my experimentation process.

Ashar Mobeen (he/him) (26:39)

Absolutely fascinating. Thank you so much for sharing. Let's shift gears now. So part of your practice involves teaching and sharing these processes through public workshops. Can you talk a little bit more about that aspect of your work, how the events unfold and the role sharing plays in your overall practice?

Gwenyth Chao (27:01)

Absolutely. So I'm very excited about this aspect of my work. Even when I'm not hosting workshops or having people in my studio, I really see that recipe book as my way of kind of interfacing and sharing my research with the world. But what I get the most kind of surprises and excitement from are this series of experimentation labs that I host in my studio. They're called co-experimentation labs because I'm inviting other makers into my space and then they have access to both my collections and my materials library, you know, gathered materials that can then become something else as well as the transmuted pieces that I have already made.

And I find it really generative to see what other makers do with this material. So we just geek out together over whatever materials are in my studio at that time. So I've had people who crochet bring their crochet needles and try to knit things out of the biomaterial ropes I've done. I had someone who was a clown come to one of the co-experimentation labs and like try to juggle with some of the things in these materials that I've made like material forms.

I've had people who are cake decorators, who are papermakers, who are watercolor painters, who want to use the bioplastic substrates as a canvas, like how you paint onto that, rather than the kind of traditional watercolor paper. So for me, this part is very reflective as well, because I know that there are designers out there working with biomaterials, trying to make specific end products that use a material to, you know, replace some of the more non-ecological things we use. I'm not exactly interested in that. I'm interested in the possibilities. So I am more than happy for people to come into my space, see what I've dabbled in so far, go through my recipes and create their own iterations.

Like if they want to use my bioplastic recipe to do something more functional, by all means. If they want to take the fruit leathers I've developed to make it into a garment or some kind of bag, yes, I would be super interested in seeing how that unfolds. Because I'm not specifically



interested in designing particular objects, I'm very open to people bringing in their skills and experiences that they've worked with more traditional materials like learning how to embroider or other skills that I don't have and, kind of, mixing that with biomaterials and seeing what emerges.

Ashar Mobeen (he/him) (30:11)

So how would you say that your art and thought of process could play a part in addressing global challenges and contributing to solutions? You mentioned sort of the overarching theme of trying to be a part of that process where one can contribute to replace more traditional non-ecological products. But in terms of yourself, how do you see your work on that global scale?

Gwenyth Chao (30:43)

So I'm not naive enough to think that my art can solve ecological problems, but I think what's exciting for me are the possibilities presented in my work. So the possibility for cherry blossom petals to become three different things. The possibilities for a sculpture to shift over time, decompose and kind of nourish the earth, become compost in another life post-exhibition. I think those potentials that I'm presenting is what brings people to my work. Like when I speak at openings or when I do workshops, people are generally very excited because they begin to see places where they are invited into this process of re-imagining materials, of mixing different disciplinary processes and ways of making into what I'm doing.

So I think for me, it's about presenting possibilities and potential futures for where our kind of material consumption and our relationship to materials can become especially when we think about how oftentimes in human history we will rely on a specific material for many years only to find out that later it's very bad for our bodies or very bad for the planet. So what are some other ways to reimagine these relationships?

Ashar Mobeen (he/him) (32:26)

Alright, fantastic. So that brings our interview to a close, actually. I wish I had more questions that I could ask you because I always enjoy so much about you describing your process and the different projects that you're involved in. But I do want to just touch on what you said about potential futures, I think, for sure. I mean, I remember when I first saw your work at UBC, I was taken aback as well and then learning more about what you do and then ultimately inviting you to Western. It was just a wonderful experience. I learned a lot - certainly I know my colleagues learned a lot.

So yeah, it was great having you. It's been great having you on today's episode. And yeah, just wishing you all the best with everything that's coming up for you. I think you're also presenting at UAC, possibly?

Gwenyth Chao (33:15)

Yes, I am. I'm on a panel with Kirsty Robertson.

Ashar Mobeen (33:19)

So yeah, will you be traveling down to London? Well, no, up, because you're in New York.

Gwenyth Chao (33:21)

Yes, I will be. Yeah, I'll be traveling down to London.

Ashar Mobeen (33:22))

Oh Yay!. Awesome.

Gwenyth Chao (33:26)

But actually, there's something else I wanted to include in the podcast, if you can find to put it somewhere. Another aspect of my work that I think can bring people together is thinking about how the idea of making or creating or designing can be responsive rather than just human exceptionally generated. Like, how can we use materials to respond to what we already have in different waste streams? How can what we build respond to existing ecologies and economies around us?

So I think my practice is quite responsive in that way in that, you know, the materials are dictated by what people are producing. My processes are very much influenced by the people around me and what kind of research they're doing. So to not really create in a vacuum in a way and branch out and respond to all the things that are happening in our very complex world today and think about how that can be integrated with a sense of ecological consciousness.

Ashar Mobeen (he/him) (34:39)

That's a beautiful note to end off at so I think I'll just leave it there.

Gwenyth Chao (34:44)

Thank you so much.

Music (34:45)

Ashar Mobeen (he/him) (34:50)

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Outro Music (35:27)