



The following is a conversation between Mike and Doug Starn and nomenus *quarterly*; the identical twins prefer to remain anonymous, identified only as speaker one and speaker two.

In a recent body of work, which deals with the capturing of snowflakes, can you explain the process, both technically and as an ontological process? How did you arrive at incorporating snowflakes into your work, and could you explain this as an extension of “Absorption and Transmission” and “Black Pulse”?

Speaker One:

Well, I think it took us five years before we got a real body of work out of this, we spent three years just experimenting and building the camera that would actually work for us. Snowflakes are very, very delicate and small, of course.

Speaker One:

the water molecule is six-sided, the molecule of H₂O.

Speaker One:

and the crystallization process begins, and because of the six sides, in right climatic conditions you get the six-sided dendritic snowflakes. Other times you might get a six-sided--.

Speaker One:

Occasionally you get three sides that are identical and three sides that are different; they’re identical too--you get two pairs of three identical branches.

Speaker One:

It’s not a myth. But anyway, we’ve never shot a perfect snowflake, as it were. They’re always broken in some way, and we love that. It goes back to our earliest work, of showing imperfections and dust that show life. And as beautiful as it can be, it’s never perfect.

Speaker One:

aloft

Speaker One:

Usually they’re conglomerations of many flakes.

Speaker One:

The largest one we’ve ever shot, though, is probably only three millimeters.

Speaker One:

To “sublime” means to change from solid directly to gas without the step of the liquid state in the middle, which would be if it was to melt.

Speaker One:

evaporates.

Speaker Two:

Up in the storm clouds, thousands of feet up is “super-cooled” water vapor, well below freezing. Actually, some of the best snowflakes you get are formed in a temperature of around five degrees Fahrenheit, but it’s liquid vapor still, it’s not frozen--

Speaker Two:

and when a molecule of “super-cooled” liquid vapor touches a speck of dust, a microscopic piece of something that’s floating around in the sky, the molecule of vapor instantly freezes--

Speaker Two:

spikes, or sometimes axles with two crystal plates attached to the ends. It’s a fascinating array of things that will grow. As they’re in the cloud, you know, with more molecules of super-cooled water vapor attaching to it and growing out in this shape--- actually that’s something that no one understands. You know, other than the fact that the crystal grows out from the six sides of the molecule, what is unknown still is why they grow symmetrically, and like a mirror.

Speaker Two:

And all snowflakes are different from each other.

Speaker Two:

Yes. It’s wonderful. So anyway, as they’re floating around there in the clouds, they’re getting heavier and heavier, and finally, the updrafts aren’t enough to keep them--.

Speaker Two:

and growing. Although there are reports of some pretty big snowflakes seen.

Speaker Two:

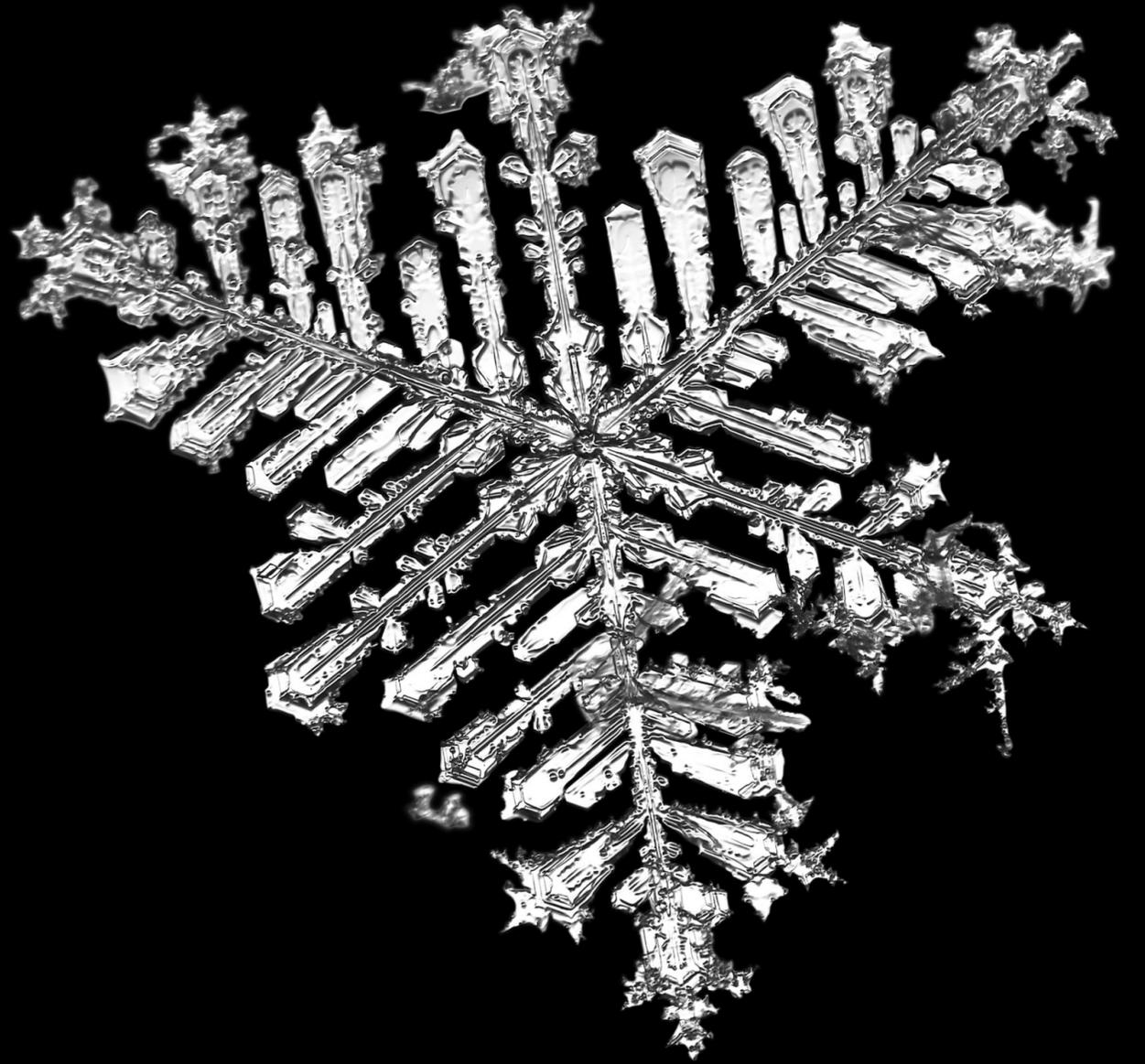
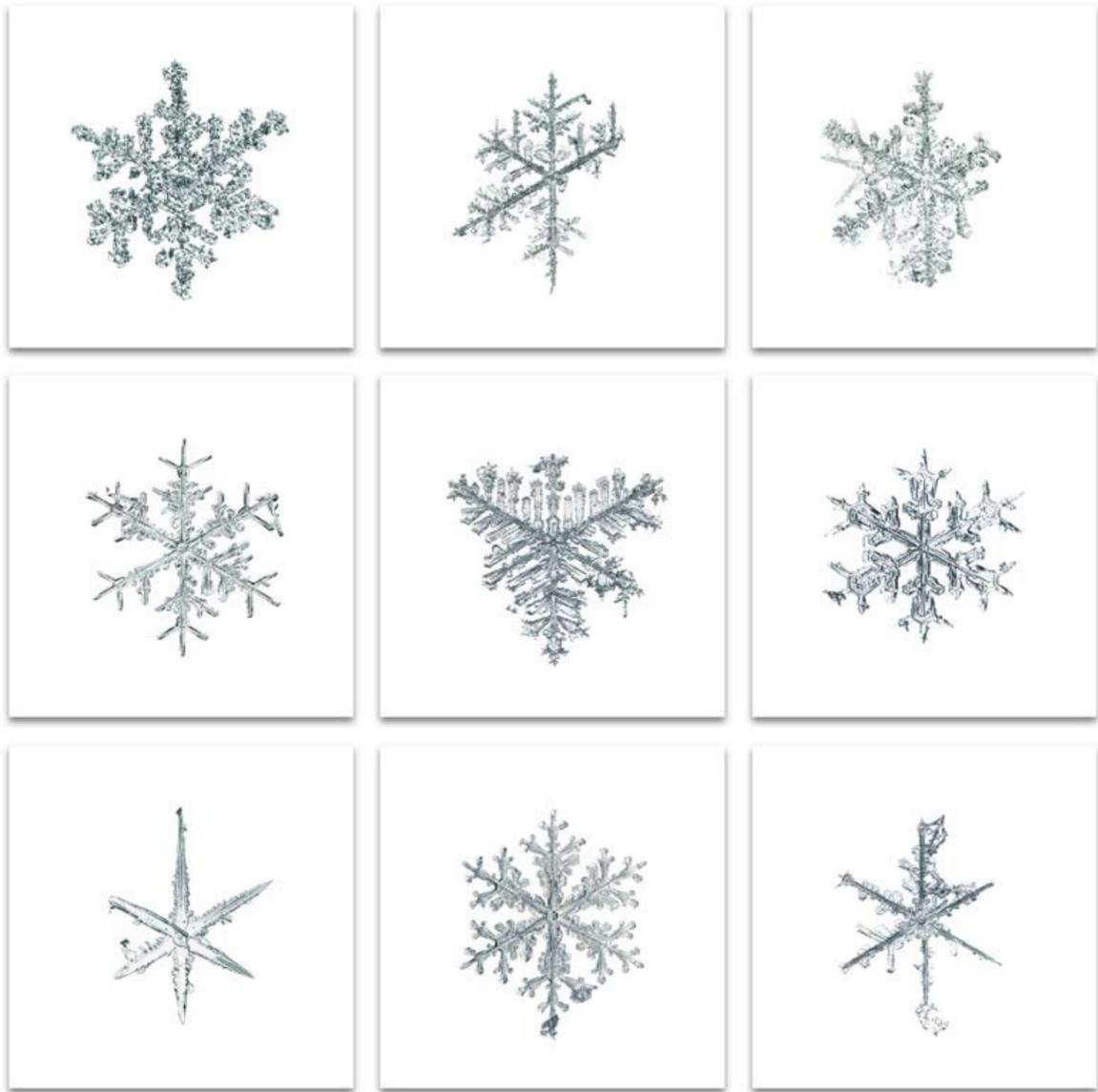
Yes, but there’s actually some reports of some actual single crystals that are huge.

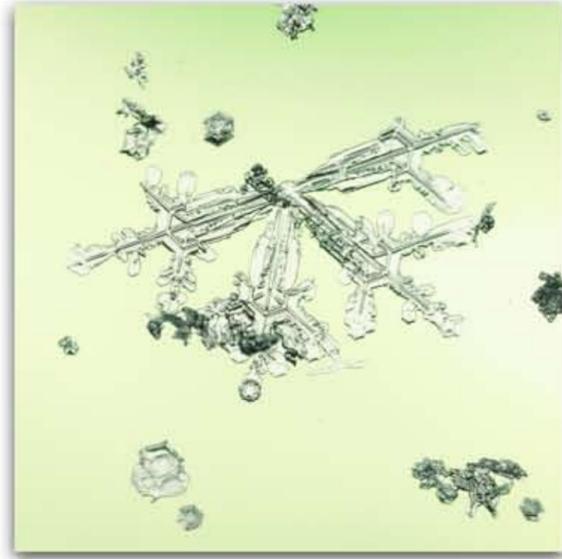
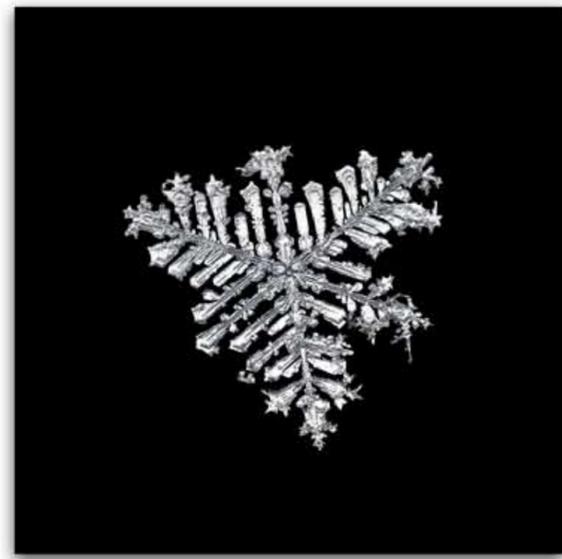
Speaker Two:

And then as they’re drifting down, they are actually, as they leave the vapor cloud, they start sublimating.

Speaker Two:

This is still well below freezing, and the crystal just--.





Speaker Two:

In a sense it evaporates, but that implies a liquid changing to gas, this is solid changing to gas: to sublime. And many snowflakes don't even ever make it to the ground. Many snowflakes sublime to nothing and return back to vapor before they reach the ground. We photograph at the highest elevation we can, so we're getting the most, still the most detailed and--.

Speaker One:

delicate branches.

Speaker One:

And these objects, these snowflakes, are icons of the ephemeral and the fleeting.

Speaker One:

are all the little moments of your life that make up you, and you alone.

Speaker One:

These moments build us into who we are,--you know, a lifetime of memory, hopes, joys, disappointments and losses, your happiness, your pride, and inadequacies. All these are pieces of everyone. The group is titled, "allevythingthatisyu."

Speaker One:

Our minds are built from all of those moments, again. That's what we're talking about, those ephemeral pieces of us that build up, like snowdrifts. It just builds up and becomes a seamless blanket in all appearance, but it's made up of countless, individual--.

Speaker One:

The first time we went out to shoot snowflakes, it was right here at the studio. It started snowing and we had our macro lenses all set up and prepared. And we were shooting with a Polaroid--.

Speaker One:

this wasn't working at all. The first problem that we had was simply that our breath, as we were trying to focus on the snowflakes, melted the snowflakes, so we quickly ran back inside the studio, found a garden hose, cut that off, and--.

Speaker One:

Well, that's when we realized we had to use microscope lenses to get the kind of depth and quality that we wanted, and we borrowed Vik Muniz's microscope lenses, and started working on the four-by-five scale.

Speaker Two:

Yes. Obviously, the most delicate ones are disappearing the quickest.

Speaker Two:

For us, the snowflakes represent all the fleeting moments, all those, all those things that have happened to you only, as an individual, and only to you. And these snowflakes--.

Speaker Two:

and they're, some of them are broken, but they're all unique and beautiful.

Speaker Two:

They're all these moments that are yours only and make up how you see the world, which brings us back to our earliest work. Our work has always tried to find some way of talking about the individual nature of perception. The earliest scotch-taped photographs were a rejection of photography as anything like vision. None of--, we don't really--well, there's no raw perception like there is in a camera. We all experience the world through our senses, but then the experiences are processed through our minds. Our minds are each unique.

Speaker Two:

snowflakes. Moments. And in our earliest work, we would take that, you know, take the image and just tape it together as a representation of that humble, simple construction that each of us do in our minds every second of our lives.

Speaker Two:

Now, about how we shoot the flakes, you know, obviously, we're shooting in a snowstorm.

Speaker Two:

We were shooting Polaroid like we did with the "Attracted to Light" images, with a negative in the Polaroid, and almost, well--.

Speaker Two:

and used that as snorkels. And it was, you know, as bad as the photographs were, and as difficult as it was, it was immediately gratifying, and we could see that there was something really amazing happening on this microscopic scale.



Speaker Two:

Vik was making a body of work--I don't think he's actually finished it. He was going to be working, making drawings on grains of rice, which we saw some early versions of, and they looked pretty incredible. He's great. But anyway, so these microscope lenses enabled us to have more of a depth of field than you would normally get with most microscope lenses.

Speaker One:

And the control of using Sinar P2 four-by-five camera's scientific sort of precision with its swings, tilts, and movements.

Speaker One:

We were also trying to get a Schleimpflug, we were able to get a greater depth of field than we would have otherwise, but we were never able to quite get a Schleimpflug. Anyway, the next big challenges were really in the lighting. And here in the Northeast, we haven't had that much snow in these last three years. We were only able to shoot maybe three or four, maybe five times a year while developing the camera and the lighting.

Speaker One:

using fiber optics.

Speaker One:

a colder light, but the--.

Speaker One:

What we ended up using are these tiny, tiny Kinoflos, these miniature fluorescent tubes, but even they give off a bit of heat, and we sort of made a blanket of cold air around those by packing the ends of the fluorescent tubes with--.

Speaker One:

We had tried dry ice initially, but that off-gassed, of course, and just gave us a fog that we couldn't really shoot through.

Speaker One:

The fluorescent tubes are surrounded with crumpled tinfoil, which gives sort of the, sort of the atmospheric backgrounds to many of the pieces. Then back to the original question about how the Allevythingthat is you is an extension of the Absorption and Transmission and Black Pulse. Black Pulse is part of Absorption and Transmission. Absorption and Transmission was, like Mike said, all of our work is about perception and the uniqueness of all of us, and conversely, the sameness of us all.

Speaker One:

always six-sided--

Speaker One:

Probably because of just--.

Speaker Two:

All very precise, enabling us to work on the composition of these snowflakes, at very minute increments, and also very instinctually. You don't have to set it up with measurements and then lock everything down.

Speaker Two:

And the lighting has to be worked on, with actually photographing snow. There's no mockups using sawdust like we could with the focusing and composition. The--we tried using--.

Speaker Two:

Fiber optic lights, which in our minds, was going to give us--.

Speaker Two:

the infrared light passes through the fibers as well, and hence they'd just melt. Flash also. As cold as flash is, that pop is very hot.

Speaker Two:

something called Techni-Ice, this synthetic material can be frozen down to dry ice temperature, which is 190 degrees below zero Fahrenheit, and then it stays that cold for hours and hours. So this--

Speaker Two:

And we're able to manipulate the lights. The lights are on articulated arms above and below the glass slide that the snowflakes are sitting on.

Speaker Two:

And that's another thing that we feel is expressed in the snowflakes; the snowflakes, all the snowflakes are stereotypical--

Speaker Two:

always six-sided, and always unique. The same but different is a fascination for us.

Speaker Two:

the fact that--.



Speaker One:
we are--.

Speaker Two:
we are identical twins. We're the same, but we're different individuals.

Speaker One:
Yes. There was something I started to say there about the--well, just how the--I'm going to touch on this. We probably won't get anywhere on it, but I'm just going to say the idea that how we are all the same through that makeup of all of our millions of, countless parts that make us all up, how we're built from all these pieces, and how that makes us the same. When you see the differences from person to person and you, but you realize that they're just made up of all their moments, that it gives a new way of perceiving that person. I don't know.

Speaker One:
It's so easy to think of everyone as individual and different without seeing the sameness, and the sameness is, like you said, creates an empathy. Absorption and Transmission is again about all the pieces that make us all up, and to turn into that whole--

Speaker One:
somehow it's not about the moments, but it is about the things that control us. It's about--and again, the things that make us who we are. You know, it's what you love, it's what you hate, it's--.

Speaker One:
It's the past, it's your perceived future, it's--.

Speaker One:
And it's sort of this coincidence of opposites. You are what controls you, and what controls you makes you who you are. So if, I mean, I know that's a little bit confusing and could seem a little bit tightly related, but there is a difference.

Speaker One:
Light for us is all those things that control, each of us, individually.

Speaker One:
yet are driven to the light.

Speaker One:
Again a mystery. No one understands why they do that. It's not to mate, it's not to eat.

Speaker One:
larval stage. Then there is "Black Pulse," which is the veins of the leaves, where we stripped the skin off of the leaves. Showing the vascular system, this is where the carbon is extracted from the air, through light, using light as energy, and turned into a physical body of carbon, and for us, the leaves, this anatomy that we present is--.

Speaker One:
The body made of what controls you, light being what controls you.

Speaker Two:
Yes, that makes plenty of sense, and it is a, there is an empathy that can grow out of that realization that we're all individuals and we're all seeing it through our own makeup.

Speaker Two:
side of work. But the Absorption of Light, is really, well--.

Speaker Two:
it's the things that drive your decisions, which drive your choices.

Speaker Two:
it's your individuality guiding your course.

Speaker Two:
Well, so Absorption of Light is comprised of--.

Speaker Two:
Yes. And we present this in a few different bodies of work. "Attracted to Light", the moths, is the nocturnal insects that live in the darkness--.

Speaker Two:
They are dormant during the daylight, but active in the night and always go to the light.

Speaker Two:
Some moths don't have mouths at all. They only maybe will be in the moth state for a week, and everything is stored energy from their--.

Speaker Two:
is our anatomy.

Speaker Two:
Yes, and the fact that the carbon is black is, its normal allotrope is black.





Speaker One:

Black pulse, black pumping through the veins.

Speaker One:

the complete absorption of light. No light is permitted back to your eyes, no light is reflected. That's why it appears black.

Speaker One:

Right, "The Structure of Thought." Again, it's a body made of black, and going back to the classical metaphor of light as information, thought and knowledge. That's a large part of this work, but really, what happens for us, the reason we call it "Structure of Thought" is we feel that--.

Speaker One:

the hierarchical structure of each branch leading to a smaller branch, leading to a smaller branch, all of that is collapsed, and you get connections that happen everywhere, which is what we feel the brain is like. The structure of thought, your connections can lead you anywhere, and again, that black being the absorption of light.

And then the last part of the group is "Ganjin," who was a Seventh Century Buddhist priest from China, who was brought to Japan, we were asked to photograph this sculpture a long time ago, and--.

Speaker One:

The sculpture was made during his lifetime, and it's life-size.

Speaker One:

but through the centuries, it's deteriorated, and the gold has flaked off in tiny particles. There's no big sections of gold leaf that have fallen off, like most of the sculptures. Anywhere that's sort of recessed still has the--.

Speaker One:

Otherwise, the dark clay underneath the gold is visible.

Speaker One:

bright where it should be dark, dark where it should be bright.

Speaker One:

what they call shotogaku, which means "enlightened," so we felt that he represented--.

Speaker Two:

Yes, and black --another obsession of ours is black is not just the complete absence of light, black is--.

Speaker Two:

and the veins are filled with the carbon and build the tree. The next series...

Speaker Two:

when you photograph the tree in silhouette, the tree—well--

Speaker Two:

back in 2000, I think. And we've always liked to photograph objects from art history, paintings or sculptures, and this was a really exciting opportunity to shoot inside a Buddhist monastery. They're usually pretty hard to get permission from. Ganjin is a very holy figure in Japanese Buddhism. He created a reformation back in the eighth century, and his image, the sculpture, is only seen once a year on his birthday.

Speaker Two:

And the temple and monastery are being restored, and that was going to take 10 years, and they invited ten photographers to come shoot it, and then put these images on tour for the ten years that the Toshodaiji is being restored. So that was exciting right there, but then when we found Ganjin, when we saw Ganjin, we saw something just amazing to us, and that was—well, it's a gilded statue--

Speaker Two:

still has the gold shining bright.

Speaker Two:

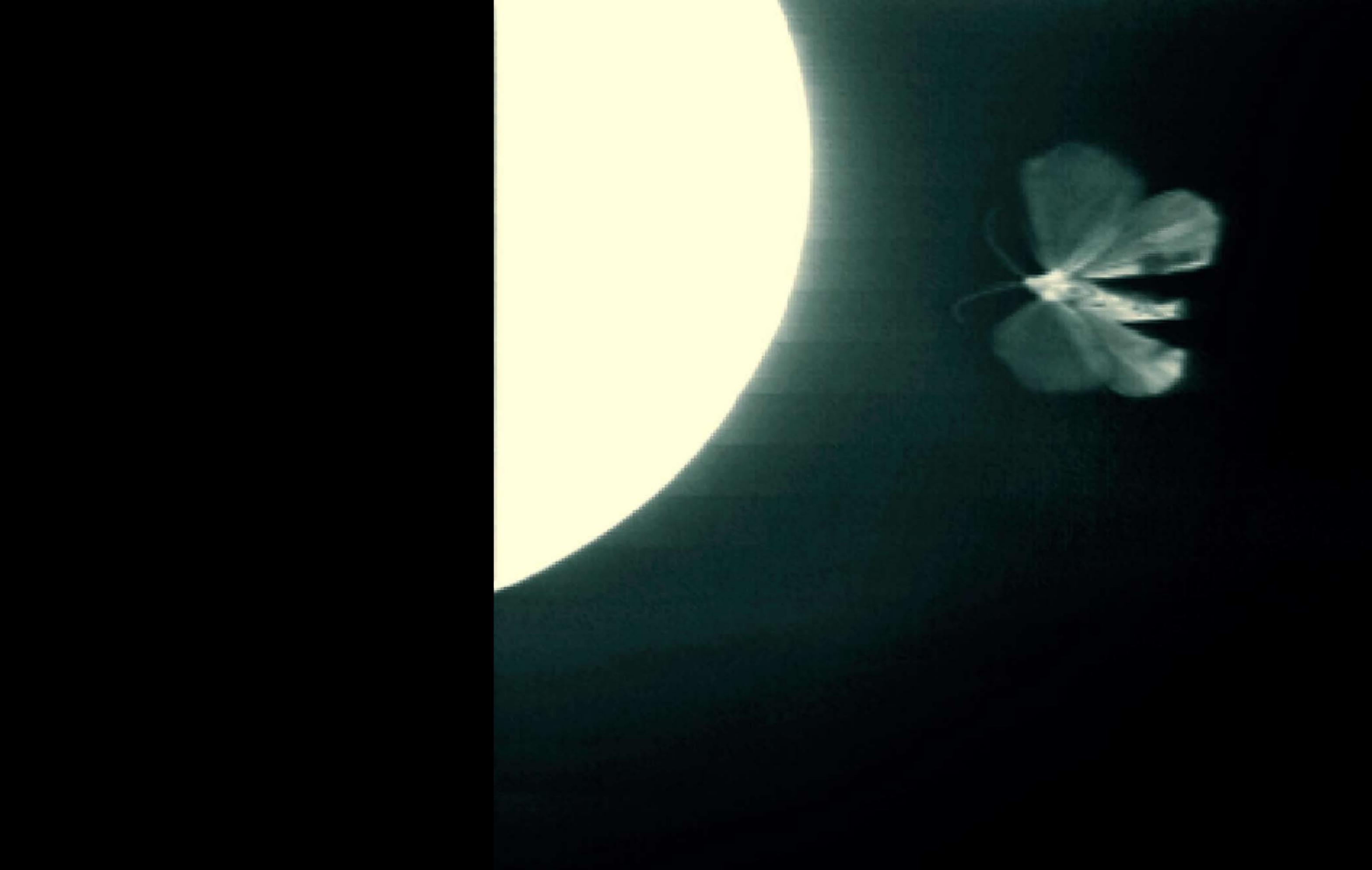
And so when you see Ganjin, you're seeing what resembles a photographic negative,

Speaker Two:

And then further in this wonderful connection that we were having, Ganjin was blind as well as--.

Speaker Two:

he represents the seeing the black that's filled with light. He's an archetypical blind seer, and really worked for us as the connecting point, the human personification of this idea of the absorption of light as black.



Speaker One:

And really, all these groups--the Black Pulse, Structure of Thought, Ganjin, are portraits of humanity, or humans. And in a way, so is Allevythingthatisyu.

Speaker One:

After photographing Ganjin, we found out that a lot of the philosophies that guide our work--.

Speaker One:

things like, things like the coincidence of opposites—in Buddhism known as Non-duality. Well, it's the yin-yang symbol --

Speaker Two:

those fish are in fluid movement, the fish swirl around and through each other. Each one of us is independent and dependent, not one and--

Speaker One:

well, these things could be thought to be opposite, yet are exactly the same in their oppositeness, and--.

Speaker One:

And this is again, you know, the idea of black being both the void and the reservoir of light.

Speaker One:

how everything is made up of parts and then, and is part of something else, everything affects something else.

Speaker One:

You know, that whole idea of everything being made of parts and part of something larger--, I just remembered this when I was putting my kids to bed—when I was five years old, with my own stuffed animal, and looking at the plastic bead nose of a little hedgehog and somehow seeing a city within reflections on that tiny plastic bead and imagining there's a little boy inside that city who's looking at a little plastic bead and seeing a city inside that, and on and on, and just being fascinated and then thinking, "Well, wait a minute. Maybe that's all I am. Maybe this isn't just a fantasy. Maybe it's true... I'm just inside an endless chain of little plastic beads."

Speaker One:

So anyway, these are just innate parts of our makeup that make us think about these things, so it's quite fascinating for us to find these things in Buddhism--. and also to find these things in science as we study about our subjects.

Speaker One:

Are they polychromed?

Question two. Could you explain your other current body of work, which extends from the use of carbon and deals directly with the antiquated process of carbon printing? The imagery deals with sculptures of Buddhist statuary. Can you explain in depth the significance of the Buddha to both of you--personally, philosophically, and how it relates to your work as a whole?

Speaker Two:

are actually paralleled in Buddhism, and so these--.

Speaker Two:

it's not a simple image of opposites, it is a dynamic exchange—

Speaker Two:

not the other. Normally we think that if something is not singular, it must be plural, but you can see plainly that each of our lives are plural, but at the same time singular. Not two and not one.

Speaker Two:

and both are needed to create the completion.

Speaker Two:

Interdependence and--.

Speaker Two:

the permanent condition of Impermanence.

Speaker Two:

And I also had a recurring dream of a very similar thing during those same days. I don't know that we ever spoke about it. But maybe everybody has these fantasies.

Speaker Two:

Anyway, we ended up photographing more Buddhist statuary that we identify with, and the colors of these sculptures are really--.



Speaker Two:

Yes, some of them, and some of them are gold-leafed. But they're really fascinating, the age that's apparent in these sculptures.

Speaker Two:

the colors almost need to be extracted from them. That's the way I felt about it.

Speaker Two:

Color Carbon was the very first color printing process in photography.

Speaker Two:

you know, it's called Color Carbon, because the black layer was made of carbon, and still is.

Speaker Two:

And these are, one at a time, layered onto a piece of paper, building the color and, you know, to--.

Speaker Two:

Right. And the tissues are very delicate, and often they rip and tear and--.

Speaker Two:

and by seeing the color's absence, you notice its presence in other places, and this really worked for us, this idea of Interdependence that we always like to have involved in our work in some way or other, usually, I suppose--.

The next part of that question. Also, can you explain or offer a tie between the historical significance of the Buddha as an icon and how it relates to the work? the work?

Speaker Two:

And if we can, you know, and--I don't know how to say it.

Number three. In conversation at your studio, the notion of a moment was reoccurring. The significance of each moment capturing experience and essentially being, each moment was very important. Can you elaborate on this?

Speaker One:

Yes, it is. They're almost--

Speaker One:

The color process we've wanted to work with since we were in school, is the color carbon process, where each--.

Speaker One:

Not a transparency like auto-chrome, it was before auto-chromes. The color photograph is separated into the four colors--magenta, cyan, yellow, and black--

Speaker One:

And each layer, each negative is printed as an individual tissue with pigments, there's no substrate for these tissues of color. They are just gelatin with color.

Speaker One:

build that full color image.

Speaker One:

Which is absolutely great for us. We don't want a perfect fidelity; we have no interest in that kind of perfection, and through that imperfection, through those tears, you see the color building up. And, of course, this was--.

Speaker One:

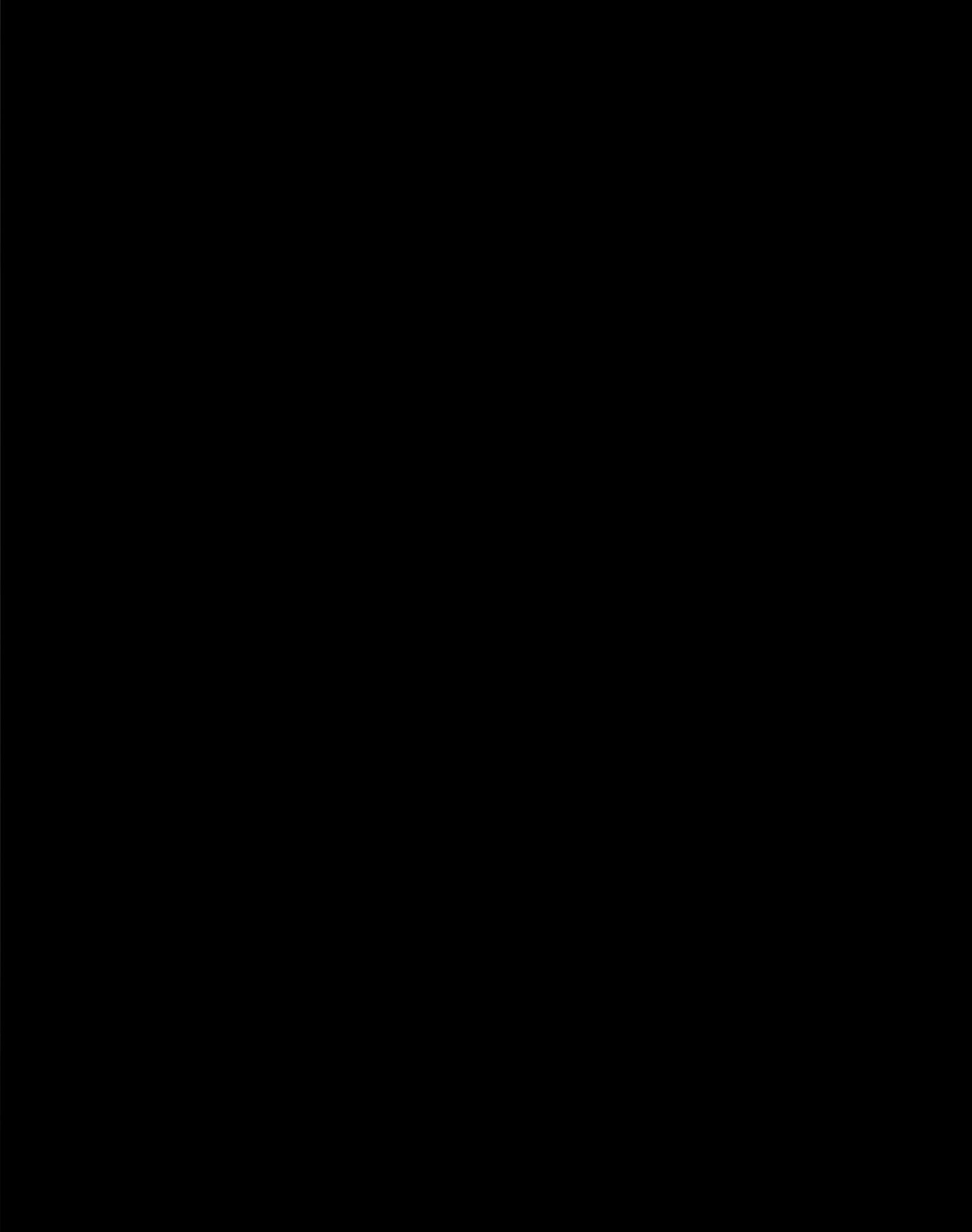
It's mostly evident in how, just about everything we make shows that it's made in parts.

Speaker One:

Yes. The Buddha icon--I don't quite think of it that way. Obviously, the icon--it gives a feeling of serenity and peace and understanding on different levels. You know, we don't just mean like in a, in a more Western religious perception of serenity. It's more sort of, well, the Western leaves out the uncomfortable. I think it's scary for people. But in Buddhism there is real acceptance of the hard to pin down and that leads to more real satisfying serenity, when you can get there. Buddhism has never had a problem with the discoveries in science, it all fits. And, of course, the way Buddhism sees the physical as an illusion, which so does quantum physics. Our work, I think, one of the things we try to instill, as much as we kind of hate ourselves for it sometimes, is that we'd like to get a touch of that feeling when you look at our work.

Speaker One:

No, it's a very difficult thing to talk about.



Speaker Two:
Well, we already--

Speaker One:
we talked about that a lot, obviously, in the snow and--yes. This thing's already so long.

Four. Lastly, in your work, the scientific process plays a large part, or a large role in understanding the finality of your projects, as well as in the research prior to completion. Can you articulate the necessity of the scientific process in your work? Who inspires you in the fields of the sciences, and essentially, the interconnectedness between science and art?

Speaker Two:
Well, I don't really follow science closely, so I can't really say much about who we're watching in the field. You know, I think someone else that we identify with in exposing-- trying to find out how things work by seeing the flaws and the missing is Oliver Sacks, in neurology.

The connection between science and art--you know, we're certainly not the only artists that are fascinated by science and find parallels to work with and to work out concepts in. There's a strong connection that just has existed for a long time. At the end of the eighteenth century, scientists were known as natural philosophers..., kind of one and the same,

Speaker One:
I mean, with both artists and scientists, we're trying, we're studying life, you know.

Speaker Two:
We like to know about our subject. You know, something that inspires us, something that we're interested in, or just thinking about how to photograph it, we start researching it to find out how it works and how it's made up.

Speaker One:
And it leads to a much greater depth of understanding of the subject and sometimes the concepts behind the work. The more you know about our subjects, the more scientifically, I think the more you can get out of what we're making. You know, when we're filming the moths, we learned that moths have a different experience of time than we have. Our minds are very complex and we have a high resolution, there are many layers of electro-chemical reactions to make all this happen, our brains are able to process about 30 separate events each second, and if something is happening faster than that--

Speaker Two:
like a movie projector, it shows you 24 images every second, each one is held still and then another, 24 times every second and we see a flow because we can only process so much information at a time. But a moth has a much simpler and lower resolution, and because of that it processes a lot more information, it processes 300 separate events every second. That means more time is experienced--

Speaker One:
this is like when some people say that things go into slow motion when they were in a car crash, the mind goes into a hyper drive--

Speaker Two:
sometimes people say they saw it in black and white. We filmed the moths in slow motion to capture their world, to replicate their perception in a way. When you see them in their speed they do not seem so frantic and choppy. Their movements are much more fluid and you see them bank their turns while orbiting around a light bulb, its really cool.

Speaker One:
Time is relative to the experience. And another thing about the moths was how to present them, how to print them. The way we decided to print these pieces was a process that we developed where the silver emulsion flakes off the photo paper during the processing.

Speaker One:
If you've ever held a moth, which we had many times as children or, you know, just rescuing one--

Speaker Two:
This was in attempt to mimic the wings of the moth.

Speaker Two:
getting it out of the window--



Speaker One:

you feel their wings, and they're very dusty. That dust is actually the scales that cover the wings.

Speaker One:

But those scales fall off, and that's why it feels dusty on your fingertips.

Speaker One:

that we chose to work with and coat with silver emulsion. Again, another reason to do this was we were mimicking their wings, the wings being what brings them out, you know, the paper's what brings our ideas to the viewer. Moths are well known as mimics. They supposedly have been able to change their coloration within a few generations to change with environmental change. You know, and understanding the carbon arc lamp that we made. The more you understand the science behind it, the more it becomes this--well, the piece is called--what's it called?

Speaker One:

The arc lamp.

Speaker One:

yeah, and the more you understand the science behind--.

Speaker One:

that's the temperature of 'Middle Finger', it is blindingly bright. But it's still black, literally. It's black but it's so bright you can't look at it!

Speaker One:

That temperature is the threshold of when carbon atoms changes into a plasma....

Speaker One:

its the first state of matter, Plasma is more than 99 percent of the universe. You could look at our state of reality as an aberration of the--

Speaker One:

The world, the very real reality that we live in is also completely false, and the-- when you understand and come to grips with that falsity that we live in, I can't explain it here, but it's a real shock and-- a "fuck-you" to our everyday perception.

Speaker Two:

It gives them a little bit of extra friction so they can get some lift, because they're not as strong of flyers as, say, a housefly or a dragonfly.

Speaker Two:

And they're, you know, they're very delicate wings. They rip while they are flying around, just like our paper--.

Speaker Two:

I totally drifted off into a labyrinth and I don't know what you're talking about.

Speaker Two:

oh, the title of that piece is "Leonardo's St. John or This is My Middle Finger"

Speaker Two:

behind the carbon arc lamp and--. Well, there is a lot of science, but one thing is about carbon itself, in physics, it fits the description of something known as a 'black body', something that absorbs all light that falls onto it, and at room temperature it appears perfectly black. But if you raise the temperature to around 1000 degrees, it would be glowing red, that is because of the thermal radiation of the carbon at 1,000 looks that way to our eyes. And if you raise it to 6,000 degrees—

Speaker Two:

It's still molecularly black carbon, but black doesn't mean what you normally think it means. Something black is filled with light and we are seeing that light come out of the black body of carbon. Our eyes see the thermal radiation of the carbon, which is white, but it's black. The viewer becomes Ganjin, able to see the light within the black.

Speaker Two:

plasma is not solid, liquid or gas, it is a fourth state of matter. The electrons separate from the nucleus and--

Speaker Two:

our bodies and everything around us, our world, exist as a freakish aberration of the stuff of the universe. From the point of view of... it's almost as incongruous as cities within cities within a plastic bead.

Speaker Two:

And that's exciting.

END



