Blueprint Study Day Transcript November 22, 2019

Robert Rauschenberg Foundation, New York

Yellow marks unconfirmed spelling and information.

Transcription in three parts:

Part I: Viewing of unframed study blueprints, 4th floor Part II: Hunter College graduate student presentations Part III: Group discussion

Transcription edited by:

Marcus Jamison, Curatorial Intern, Robert Rauschenberg Foundation, January 2020 Kristen Clevenson, Curatorial Assistant, Robert Rauschenberg Foundation, July 2020 Julia Blaut, Director of Curatorial Affairs, Robert Rauschenberg Foundation, August 2020 Michael Lobel, Professor of Art History, Hunter College and Graduate Center, CUNY, September 2020

Attendees include:

- Joshua Chuang, Miriam & Ira D. Wallach Associate Director for Art, Prints, and Photographs and The Robert B. Menschel Senior Curator of Photography at the New York Public Library; curator of the exhibition *Blue Prints: The Pioneering Photographs of Anna Atkins*
- Lee Ann Daffner, Andrew W. Mellon Foundation Conservator of Photographs, The Museum of Modern Art
- Christina Freeman, Adjunct Assistant Professor of Art and Technology Coordinator, Hunter College, CUNY
- Nora Kennedy, Sherman Fairchild Conservator in Charge, Photograph Conservation Department, The Metropolitan Museum of Art; co-founder of The Better Image
- Michael Lobel, Professor of Art History, Hunter College and the Graduate Center, CUNY
- Peter Mustardo, Conservator of photography; co-founder of The Better Image
- Antonella Pelizzari, Professor of 19th- and 20th- Century History of Photography, Hunter College
- Susan Weil, artist and collaborator with Rauschenberg on the blueprints

Robert Rauschenberg Foundation, art and archives staff:

- Julia Blaut, Director of Curatorial Affairs
- Kristen Clevenson, Curatorial Assistant
- Gina Guy, Collections Manager
- Kathy Halbreich, Executive Director
- Helen Hsu, Assistant Curator
- Thomas Roach, Head of Art Services
- Francine Snyder, Director of Archives

Master's students in Art History in Prof. Lobel's "Research Methods: Robert Rauschenberg," Fall 2019, Hunter College:

- Rose Bishop
- Eliana Blechman
- Maresa Carney
- Erica Evans

- Kevin Geraghty
- Jacob Goldsholl
- Emily Henson
- Dana Notine
- Ximena Santiago
- Madeleine Seidel

Preferred citation:

Blueprint Study Day Transcript, Robert Rauschenberg Foundation, November 22, 2019. Robert Rauschenberg Foundation Archives, New York.

Part I: Viewing of unframed study blueprints

- Michael Lobel: [There are a] lot of questions about those more purplish objects, which have been getting called diazotypes as a functional term, but no one's really clear. Again, for those of you who came in late, but just to explain this—Francine [Snyder] or Julia [Blaut] or Helen [Hsu], anyone who wants to jump in—as I think some of you know, in part this class came out of an article I wrote several years ago about Susan [Weil] and Robert Rauschenberg's blueprints ["Lost and Found." Artforum 54, no. 6 (Feb. 2016): pp 184–97.]. At that time, I found a few letters from the filmmaker Emile de Antonio to Rauschenberg and Leo Castelli, saying, "I have X number of Rauschenberg drafting paper works. What should I do with them?" And as my students in this Research Methods class have learned this semester, sometimes you hit a dead end with research. So I didn't know what these were, and then I got an email six months—eight months—ago from the foundation saying "Oh, Francine, or we, found some materials." And that's what these are. So just to set this up, the students already know this. And you'll correct me if I'm wrong, but we don't know exactly what these are. We don't know who made them. We think those are probably those works. Susan, you've said you don't recognize them.
- Susan Weil: No.
- Michael: So, we think they're not Weil-Rauschenberg works. So they could be Rauschenberg works or very likely they could be—and you'll learn about this a little bit more—Jasper Johns and Rauschenberg in the later 1950s came up with a commercial pseudonym, Matson Jones, and produced a series of works. They could be works by them. So, and I don't know, Francine, do you want to say anything more about these?

But part of the point of today is to try to understand a little bit about these and other works. And I'll just say one last thing, which is that—and Susan, I'm really glad that you're here—because this was the point of that *Artforum* article. A lot of people, and I say this to the students, think that because these are indexical—you put things down on a surface and expose them—that they're very simple objects. And, in fact, that history of the making of them seems rather complicated to me. And so we hope that we can use this assembled body of minds to try to figure out a little bit more about them.

Francine	
Snyder:	The only thing I will add to this is the reason that we do think they're related to those drafting works that Michael Lobel was referring to is because, using his correspondence, and we found a little more correspondence in our collection, we found out that de Antonio had sent some drafting works back to Rauschenberg through someone named Barbara Pressman. And these were in a folio labeled Barbara Pressman. So that's that connection that made us put all that together and go there.
Susan:	I want to add that when I received the images, I wrote an email to Jasper and he said they're nothing he remembers of doing.
Michael:	Did Jasper Do you remember, Susan, do you remember if Jasper said he doesn't remember them or didn't want to talk about them?
Susan:	He said he doesn't have connection to them.
Julia Blaut:	So, I interpreted that as not a definitive statement that he didn't do them, but that they weren't of significance to him. I felt like it was ambiguous enough a statement, that maybe he did work on them, but that they weren't consequential.
Susan:	Did I send a copy of the email to you?
Julia:	Yeah.
Susan:	Oh, well.
Julia:	I think so, yeah. Or was it Brittany's interpretation? Maybe we'll double check on that, because it's great to have the exact. [Per May 20, 2019 email from Brittany Richmond, at the time a Research Assistant for the Rauschenberg Foundation: "Susan Weil heard back from Jasper [Johns] by email, which verbatim read 'the blueprints have no meaning for me.' Susan took this to mean that he did not make them and does not want to be involved in the investigation."]
Michael:	So we have about, Kristen, and we have about how much time?
Kristen Clevenson:	So, till about 2:45. So about half an hour.
Michael:	2:45. So we've got half an hour. So, people want to look, and if anyone who this is your first time looking at these If anyone has any thoughts about the distinction between those ones on the end. But this isn't everything. This is about eighty-five or ninety percent of the group. We made a selection. But if any of you have anything, Susan, or the conservators, or even Christina [Freeman], about how some of this stuff might have been made. They're actually kind of complicated. And we did notice things; like for instance, it looks like these things are kind of reversals of those, which may suggest that there's a different process going on.

Peter

Mustardo:	Well these four, I'd say, clearly are different—are not cyanotypes.
Michael:	Right.
Peter:	Diazo process coloration is pretty indicative of the diazo process. So these four are apart.
Michael:	And is the diazo process sort of the same as cyanotype, or is it a kind of reversal? Because it looks like there's
Peter:	A direct positive.
Michael:	It's a positive.
Peter:	Right.
Nora Kennedy or Lee Ann Daffne	er: Yeah, yeah, yeah, yeah. Although the cyanotype can be positive or negative.
Peter:	Well, depending on what you're
Nora or Lee Ann:	The chemistry is complicated. And there are different formulations that are available and would have been available to the people that were making these. So, you could have—I think—what they call a white line, which is where highlights that read as a positive. But you can also have the reverse. So, architects could go and have copies made of their drawings—that the background is black and then the lines are white. Or they could have the reverse. White background, blue lines.
Peter:	But these are iron based. These are easily dyed, right? So, they're categorically different creatures.
Michael:	And do you think these materials would have largely been available through architecture suppliers, or?
Peter:	Yes.
Nora or Lee Ann:	Most commonly, but elsewhere too.
Peter:	Especially the large format pieces.
Nora or Lee Ann:	Graphic arts, architectural. In-house or down the street.
Michael or Josh:	[inaudible 00:06:46]

Thomas Roach:	These are definitely rolls or sheets.
Nora or Lee Ann:	Diazo definitely [inaudible word] more like sheets. But I imagine you could also get rolls too, depending on the function. Yeah, the interval's fascinating.
Julia:	I just want to say, I don't know a whole lot about this. Kristen knows more. But I believe the recording device, and we are recording
Kristen:	For research.
Julia:	For research purposes, not for distribution. But maybe if people can just talk louder. And I believe the recording device is right over there, not that that should make that much difference.
Antonella	
Pelizzari:	Peter, I missed something. This diazotype is made how? This is pigment?
Peter:	Diazo dye. It's a dye.
Antonella:	Okay, dye.
Peter:	And developed in ammonia. Fumes of ammonia. Again, mostly for graphic kind of production. There are other uses.
Nora or	
Lee Ann:	It's the process that came after the cyanotype process. It replaced it, to some degree. But it worked with commercially available paper—very easy to use.
Michael:	What I found when we were trying to source blueprint paper for our workshop is that it's very expensive now because it's not that common anymore. But I'm assuming in the middle of the twentieth century these kinds of treated papers would have been much more commonly available through, again, architecture, arts and crafts, or art supply [stores].
Nora or Lee Ann:	Easily through the eighties.
Peter:	But for large format architectural work.
Julia:	In the <i>Life</i> magazine article ["Speaking of Pictures: Blueprint Paper, Sun Lamp, and a Nude Produce Some Vaporous Fantasies," <i>Life</i> 30, no. 15 (April 9, 1951): pp. 22–24.], I think Bob is quoted as saying you can get X number, 19 feet of it, for \$1.75 or something ["Ten-yard roll of paper costs about \$1.75," p. 24.]. So, cheap, cheap, cheap.
Michael:	Susan, do you remember, would you have ever bought it?

Susan:	Yeah. The first ones that I did with Bob were We went to an architectural supply and bought it, but I couldn't tell you what we paid
Michael:	But the two of you didn't have a lot of money then, right? So, it wouldn't have been extraordinarily expensive.
Susan:	No, no. We were living on the G.I. Bill, so
Nora Kennedy:	Yeah, and at the Met [Metropolitan Museum of Art, New York] we have a giant Francesca Woodman and she clearly was turning to this in the late seventies, eighties as an inexpensive way of producing large images.
Michael:	So, I think some other questions we had is, from someone who's not an expert, this looks somewhat like what I would call a double exposure. But I'm assuming you'd place objects down, expose it for a certain time, and then move them and expose it again. Correct?
Peter:	Yeah, rather than some physical because it's probably contact printed.
Michael:	Right.
Peter:	So, there's not likely to be movement, unless intentional.
Nora:	Yeah, the other thought that occurs to me is that you could put down one layer, and then have a glass and put down another layer. But you have to look at the focus.
Joshua	
Chuang:	I'm just curious why there are these. I'm just kind of puzzling over the opaque
Nora:	Overlaps.
Joshua:	Overlaps.
Antonella:	Is that not positive?
Josh:	No. It's all negative, I think. But I'm wondering, because the ones that are more faint, you'd think if it was a single exposure, if they're further away from the paper, they would also be fuzzy. And they're not. The elements are not altogether fuzzy. So, there's something going on here [perhaps discussing SC201].



Blueprint [SC201] Attributed to Robert Rauschenberg, 1950s Plant leaves 16.5 x 14 inches

Nora:	But this would be the perfect thing for you all to try to reproduce.
Michael:	To try, exactly. Yeah.
Julia:	And they did.
Michael:	And they did.
Peter:	Oh. Fantastic.
Emily Henson:	The glass is actually really interesting, because I tried to do something similar with similar materials as this, but they did not come out so crisp, even though they were flat on the paper. So, glass makes a lot of sense.
Peter:	Which, this one?
Emily:	This one down here. Like the little bits of the fern [perhaps discussing SC199]. But they didn't really show up that well. And I'm wondering like, glass just makes a lot of sense to be able to get it.



Blueprint [SC199] Attributed to Robert Rauschenberg, 1950s Fern-like shapes 10.75 x 9.625 inches

- Peter: Using a printing frame or just glass on top.
- Emily: Maybe just glass on top, like you would do in the darkroom with a contact sheet.
- Nora or Lee Ann: Actually, if I may, maybe the students can go through these one by one and give your theories of how each one was made.
- Speaker ?: That would be fantastic.
- Nora or Lee Ann: Because I have some ideas, but you guys have more experience.

Madeleine

- Seidel: Only a few of us are responsible for these specific ones. All of us were involved in making different [blueprints]... We all had kind of experiments in mind. We had a day that was so graciously led by Christina [Freeman] over here to try and replicate a lot of the theories on here that we are just like "This is so cool, but we have no idea how he did it." And that's why this was so neat. Because a lot of this is very new research. I know Rose over here did a lot of work with what we think is a perfume bottle and then the rippling of... that ripple effect [visible in SC192]. And I think you did some blueprints?
- Rose Bishop: Yeah, so most of these blueprints are traditional contact prints and the objects were laid directly on a paper and then exposed. But when we were trying to recreate these works with a crumpled paper, we initially thought it was produced with an effect where you lay cellophane over it or tissue paper, but that didn't produce an exposure.

So, what we wound up doing was actually crumpling up the piece of paper and exposing that paper ball, and then once you put it in the water bath all the wrinkles are released.





Blueprint [SC186] Attributed to Robert Rauschenberg, 1950s Flags and cloud-like shapes 10.75 x 9.625 inches

Michael:You hit the nail right on the head. For the assembled group, when I came in and saw
these and thought that these could possibly be a collaboration between Rauschenberg
and Jasper Johns, the flags work is pretty significant. It would have been made exactly
around the time that Jasper was working on his flags. So that seems significant.

Susan: I thought I was being funny, but maybe I'm not.

Michael: And numbers as well. If you look at the two [SC180]...

Fig. 6



Blueprint [SC180]

Attributed to Robert Rauschenberg, 1950s Number "2" balancing on two circles above a rope-like line 10.625 x 9.625 inches

Michael: But because we have this group here, one of the things we'll... Rose, you could say this. Were you able to figure out how one would get an object clearly like the glass and then these effects around it? [Referring either to SC183 or SC193.]

Fig. 7



Blueprint [SC183] Attributed to Robert Rauschenberg, 1950s Bottle surrounded by crumpled paper 10.625 x 9.75 inches

Fig. 8



Blueprint [SC193] Attributed to Robert Rauschenberg, 1950s Bottle surrounded by stone-like and cloudlike objects 10.75 x 9.625 inches

Rose: I tried, and it is really hard. All of my experiments, the image of the object came out distorted and warped and itself was crumpled. Whereas this retains its geometry very well. So, I don't know. Maybe that was exposed first and then the paper was crumpled?
Michael: But how would you do that if there's so much white on that? [Likely referring to SC193; fig. 8.]
Rose: Maybe if there was masking or... I'm not sure.
Michael: Oh. Huh. Do the conservators or Christina have a sense of how you would do something like this where you have...? You have so much white, which means it's unexposed. But then you have the glass container, which I think we figured out what it was. It was from...

Rose: Yeah. A perfume bottle by Mary Chess from... it was produced from '47 through the late fifties.

Fig. 9



Advertisement for Mary Chess Perfume, featuring "Star Bottle," in bottom right corner, ca. 1947.

|--|

- Michael: Does anyone have a sense of how one would get those effects with the bottle being so crisp?
- Christina: I think that's a smart assumption, that it was a double exposure. So first exposing the bottle and masking out.
- Michael: You would mask?
- Christina: Yeah, and then crumpling up the paper afterward. Yeah.
- Julia:Sue, is that something that you remember doing when you did blueprints together?Would you sometimes mask out parts of the print and then do a second exposure?
- Susan: Yeah, I think so. That's if you want to do a big blueprint and it's made of different parts, you could do part of it and then free up the second part. I'm still doing blueprints. I have a collaborator now, José Betancourt, and we've shown a lot of blueprints together for the last ten years.
- Michael: This is probably a good time. Sue, I was going to ask you this question. Now, do you prefer Sue or Susan?

Susan:	Whatever you like.
Michael:	Okay.
Susan:	Don't call me late to dinner. [Laughter.]
Michael:	I won't. I was going to wait until later to ask you this question, but I'll ask you it now. So, my sense is that you were really the source for a lot of this. Because the blueprint technique as just a craft family technique came from you, from your family.
Susan:	Yes, I brought you that picture.
Michael:	Thank you. Now, my sense is that when you learned it, and when it was part of your family craft activities, you probably just were doing sun prints, right?
Susan:	Right.
Michael:	But at some point, you and Bob shifted to using bulbs, because they obviously allowed for much more precision.
Susan:	Yeah.
Michael:	Christina knows this as well, the students know this. When you start using bulbs, and this will come up a little later, you have to understand exposure times. You have a lot more power behind the light. Do you remember anything about reading photography books about exposure? Learning at some place like Black Mountain College? Experimenting with bulbs?
Susan:	No. When we left the island [Outer Island, Connecticut] and doing it with sunshine, when we moved to New York, we just found that we could use those kind of bulbs for making blueprints because we didn't live in the middle of the park. And so that's when we researched that and did it.
Michael:	So, it was a convenient way of exposing without the sun?
Susan:	Үер, уер.
Christina:	And it must have been easier at the time to find ultraviolet light bulbs at the hardware store?
Susan:	Yeah.
Christina:	Okay.
Susan:	Yes. They were readily available and no longer are.
Michael:	I imagine at that point people had sun lamps that they would tan with, etcetera.

Susan: Yeah, exactly. It's the same thing. We were tanning the leaves and things. Michael: So, we think that this is... Christina, I understand it's possibly masked, although some of it comes so close to the jar or the glass bottle. It seems complicated. Christina: If you look at Jerry Uelsmann [00:19:01], do you know his photographs? They're sort of surreal. He's a master masker, multiple exposure person. So, I think a lot of makers have that facility to get really close, but... Michael: And what about this material around here? It almost looks like it could have been wet or something because of the... What are we looking at there around it? We understand possibly how the crinkling might have happened, but what is this? Rose: It looks like gravel. Christina: Some people tested out salts and [crosstalk 00:19:36] Madeleine: Yeah, I tested out salts. I didn't primarily study the smaller blueprints. My piece that I was working on was a piece that Rauschenberg gave to Hermine Tworkov [RRF # 52.E002] for her birthday at Black Mountain College. All around it are these really just beautiful little cloud looking fragments that have this really gravelly texture. But it was a little bit too big to be gravel, and it wasn't soft enough to be a dirt. So, I tried exposures with salt and sugar, just because I didn't know if there would be any chemical difference with either of those. The exposure looked really good, until I washed it. And then it just kind of disappeared. But it was enough to see that that was

Fig. 10



a method that could work.

Robert Rauschenberg A Birthday Picture for Hermine, ca. 1952 Cyanotype mounted on paper 18 x 16 inches (45.7 x 40.6 cm)

Private collection, New York RRF # 52.E002

Christina: Was this with the paper that we had for the workshop?

Madeleine: Yeah.

Christina: Just to preface that we ordered this paper from San Francisco and it had an extremely long exposure time. It would take twenty minutes with these LED ultraviolet light bulbs that we got. It was so hard to find the ultraviolet light bulbs now, and we were trying to get as close as possible to what you might have been doing. So, I would say that I wouldn't expect there to be any chemical interaction when you're working with a dry print and then the material on top is removed. The only thing that would be happening is when things are wet. So, I wouldn't try to mistake any salt or sugar having an influence on the chemistry.

Madeleine: I only exposed it for five minutes.

Christina: Yeah, the exposure time was too short [crosstalk 00:21:25].

Susan: Did you try to find Hermine [00:21:30] to ask her?

Madeleine: You know, I did not find her, and I did not talk to her. But I talked to her artist estate representative and I think Jack Tworkov [00:21:39]. Does he also manage the whole Tworkov family estate?

Michael: Yeah. But she wasn't there when he made the work, right? So, she wouldn't...

Madeleine: That is still...

Michael: ...unclear.

Madeleine: Unclear.

Michael: So, speaking of some of these effects, I want to raise two things, because I think we just have ten or fifteen minutes left up here. We brought you here for your expertise, so if there's anyone here who sees an effect or an object or material that they want to note to us as significant, I think we'd like to hear it. And then also I think it would be a good time for the conservators to weigh in on questions about conservation.

Julia: I just have a quick question for you while people are thinking about their questions. So the number is SC195, so the Study Collection 195. Is that the effect on the Hermine Tworkov [fig. 10]?



Blueprint [SC195] Attributed to Robert Rauschenberg, 1950s Gears, spirals, and other shapes with small confetti-like dots 10.625 x 9.625 inches

Madeleine:It's close. It's almost like it's a combination between this one [SC?] and then SC186 [fig.5]. Yes, it's here it is. It's this arrow, and then the right, right here.

[Flint

Kirschenbaum?	Because that does kind of look like gravel and like little rocks by the water [perhaps referring to SC193; fig. 8].
Michael:	Why is this so wonky [00:23:08]?
Josh:	It's because
Flint?:	the edge.
Josh:	It's very three dimensional, very round, so the light [crosstalk 00:23:15]
Michael:	Oh.
Josh:	It's like a very round stone.
Michael:	This is important to get from Josh. So, on SC193 [fig. 8] I was asking why we're getting this milky effect. I thought it was almost liquidy, but Josh is saying that's an effect of the light, which is
Josh:	It looks like some sort of stone and it must have had some roundness to it. So that's where the light was cutting underneath the edge of the stone, exposing it there. It's happening a little bit here, too, I think.

Michael: Right.

Josh: With that glove [SC191]. Exactly. It's getting enough.

Fig. 12



Blueprint [SC191] Attributed to Robert Rauschenberg, 1950s Hand or glove holding thin wire?, two gears and brush-like shape 10.875 x 9.625 inches

Speaker ?:	There too.
Josh:	Exactly. So, it's also a technique that Man Ray used to great effect with his rayographs.
Julia:	Just for the record, do you want to say, Josh, the number of
Josh:	This is SC193 [fig. 8]. And I think there was a question about how this sort of modulated shading effect
Michael:	It's kind of a milky or liquidy effect.
Josh:	Right.
Michael:	Which I thought was a result of liquid being on the surface. But Josh is saying no.
Josh:	Well, you see this a lot in Man Ray's photograms, where he uses a kind of round object. And the light sort of goes underneath that object, so we get a kind of softness.
Speaker ?:	Yeah, it's a gradient.
Josh:	It's a gradient, exactly.

Michael:	Let's say people are saying this could have been a stone. If it's shiny or reflective, would that add to that effect?
Josh:	It would certainly Would it add to the effect? Yeah. Sure. It would reflect light.
Michael:	Or change. Again, that would be the result if one could experiment with different surfaces to see the kind of effect.
Josh:	Right.
Thomas:	One of the questions I just had with Peter was about – you described crumpling blueprint paper itself, exposing it, bathing it, and it would produce an effect very similar to what we see here. But in my opinion, and I think Peter agrees as well, is that there would be evidence of the paper being crumpled even after it was exposed and bathed. So, one of the things that we're thinking is that they may have crumpled the first sheet, and then he used that to expose another sheet below it, which would also be a working process to produce the exposures with the perfume box.
Christina:	It's like a positive-negative process.
Julia:	But I feel like we actually did do this and we did crumple up pieces of paper. And, exactly as you describe, that when it went into the water, the creases kind of relaxed.
Peter:	Well, sure, but completely without evidence?
Julia:	Well, enough so that there it looked a lot like this.
Flint:	They're ripply! You can see, this is coming up here.
Michael:	So, Rose has looked at the back of this.
Flint:	And this is coming up here, and here. It's coming up on all the crinkle lines.
Rose:	Yeah, I have a theory about this one [SC192; fig. 3]. So, it's hard to see in the front, but there are twelve small, horizontal creases in the work, so I think that maybe it was folded up like an accordion style and then exposed section by section.
Thomas:	But the question is perhaps that one was crumpled and exposed, but what about this one?
Josh:	That's a good question. Has anyone seen the back?
Nora or Lee Ani	Do you see anything on the back of that one? Could you see any creases or lines or anything?
Rose:	Ximena, do you remember? I don't

Rose:	I'm not totally sure about this one. [crosstalk 00:26:49]
Maresa Carney:	Would it have been ironed?
Rose:	Yeah, there's rippling here, but I don't know if that's just an issue of storage.
Emily:	Would it be possible to crumple it and then put the perfume bottle down and then put glass on top so that the crumples wouldn't be flattened because the perfume bottle has dimensions but the perfume bottle would be crushed? [SC183; fig. 7]
Michael:	No, because then the surface is going to be lifted off of the bottle, so it won't be crisp anymore.
Nora or Lee Anr	n: It almost looks like the bottle is nested.
Josh:	It does, yes.
Nora or Lee Ann	And if you can imagine crumpling the paper and then pushing the bottle in and exposing it. That's what it looks like to me.
Rose:	Well, also these areas are completely white.
Nora or Lee Anr	n: And that would account for those, you know.
Michael:	Right. That's true.
Rose:	These white areas are completely bright and unexposed, whereas seemingly that was exposed at least a bit.
Michael:	Right.
Maresa:	But isn't it where it's darkest, it's exposed the longest? So that bottle wouldn't have been nested in there, this would have been exposed more? This area around the bottle.
Speaker ?:	No, but it would have been a direct line for the light to hit that though—area surrounding bottle. There's nothing blocking it.
Julia:	Can you just say the number, study collection?
Michael:	It's SC183 [fig. 7], which is a glass bottle with a stopper inside a kind of crumpled effect. Do the conservators or anyone else, Susan or Christina, haveOh, so it is crumpled. So, you can see that in the paper. So, we're talking about SC183. You can see on the surface the crumpling still evident.
Speaker ?:	Cool.
Peter:	On this one too. [inaudible 00:28:52]

Flint:	Oh, its super crumpled! [crosstalk 00:28:52].
Christina:	I had a student in my class in fall 2018 who made origami, exposed it, and then processed it, and it looked similar. So that's what the guess was. That's how we figured it out.
Michael:	So, for the purpose of recording, get Thomas with his light to shine—what is it called—obliquely.
Peter:	Raking light.
Michael:	Raking light. So, raking light on the surface does show crinkling and crumpling. Can [we ask] the conservators about the self-healing? So, to the conservators in the room, Julia and others at the foundation have mentioned to me repeatedly, which I have never heard of this before and Susan, you may have heard of this as well, that in terms of conservation issues the blueprints are self-healing. What does that mean?
Nora or Lee Ani	n: We don't tend to use that.
Michael:	So, let me ask you this question: Are there particular issues with conservation with blueprints or diazotypes in terms of light exposure, best practices in terms of storage?
Peter:	I have a quick story about cyanotypes that I had the pleasure and trauma of working on. Seventy-eight Anna Atkins botanical studies, way back when. We knew the fact that they were sensitive to alkaline environments, and we were very careful to order non- buffered materials. The work we did was fairly minor. Creases, folds, some mends. But when we put a square of blotter paper on one of these Anna Atkins prints—and this is a sample that I have from our study collection, but I just pulled [it] out and this week asked people from our staff to make a very alkaline bath for this little piece of blotter, which we placed right here. Well, this is exactly what happened with the Anna Atkins photograph we were working on. We had an alkaline blotter that we thought was non- buffered. We dried a crease on Anna Atkins, and when we took the blotter paper off, it looked like this.
Michael:	Oh.
Nora:	And it wasn't even wet. Like it was just ambient.
Peter:	No, it was dry. So, you know, excuse me. She was there at the time, her heart sunk and it was "What have we done?" And in typical fashion, we didn't point it out, and we put it in a drawer and went home for the weekend and prayed. I think we put a little votive offering on it. And indeed, over the weekend I want to show you this. We did two of these. One was here, one was here. This looked just like that just a few days ago. And exposed to oxygen and atmospheric moisture, they kind of regenerate.
Thomas:	Regenerate maybe is the better word.

Michael: Is there a technical term to describe what's happening? Nora: Yeah, there's actually been a lot written on this by, in particular, this fellow, Mike Ware, a chemist. And all his stuff is online. The chemistry is complicated, but an interesting thing is there's Prussian blue and there's Prussian white. And basically, they're different forms of the same compound. And when you expose these to light, they turn into Prussian white. Not hundred percent, but they do fade. But then when you put them away in the dark and in the presence of oxygen, they reform to the Prussian blue. The catch is if you do it too much, you're going to begin to lose image. Peter: The reversion starts to fall. You don't ever get a full hundred percent reversion, but it's ninety-seven, ninety-eight percent, and then the second time it's ninety-six, ninety-five. So, it falls off. And as conservators, we're very fond of cyanotypes. Nora: Julia: So much more resilient than photography. I mean, black-and-white...? Peter: Than silver prints. Michael: And is the same true of diazotypes? No. Nora: No. My guess is that these were once blue. I don't think they... Or deeper than... Peter: Nora: Yeah. They weren't purple. Lee Ann: I would be careful about the cyanotype being more resilient than others. Just because some, I'm sure, are. But we have on view right now at MoMA [Museum of Modern Art, New York] a very wonderful Rauschenberg and Weil cyanotype. *Feet in Foliage* [Untitled] [feet and foliage], ca. 1950; RRF # 51.E003]. And over the years I've been monitoring it, and I feel that it's losing its contrast. And so that's one of the reasons I pushed Peter to get me an invite to today's symposium, because I really want to hear what people have to say and what they're thinking about this, because I'm really concerned about it. And it hardly ever gets shown on view, but I don't think that all cyanotypes are equal, and so we just need to be mindful about it. Josh: I want to ask you quickly, I noticed there was no direct light on it. Lee Ann: Right, right. Josh: And what I've been taught and what was the principle we used in lighting the Anna Atkins show with her cyanotypes from the 1840s, is that they're actually much more resilient than say solvent paper print or the equivalent. Peter: Chromogenic.

Josh:	Or chromogenic print. And I'm not sure who was it. I think I asked Sarah [Meister, photography curator, MoMA] [00:34:23] why is it so conservatively lit She said "Well" Did you do some microfade testing on it?
Lee Ann:	We've done spectrophotometry.
Josh:	Okay.
Lee Ann:	And it had demonstrated some change.
Josh:	Right. Okay.
Lee Ann:	That one in particular. We also have some Anna Atkins and some other cyanotypes upstairs, but I still feel that because there's a lot we don't know about them, that it's better to be conservative in our practices so that we can hope that they'll last as long as possible. I don't know. I'm just very nervous about them.
Michael:	And is there a best practice? So, the diazotypes sound the most sensitive, but even with the cyanotype, is there a best practice for resting for how long?
Lee Ann:	Well, the guidelines say three years for every three months, but
Nora:	I mean, we also tend not to use resting.
Michael:	Right.
Nora:	Because it sounds like they'll recover and get back up again. Go for it. I mean, we do what Lee Ann does. We keep an eye on things. We take measurements. And if things start to change, we send up the red flag. We don't have very specific you show it for three months and then you have to not show it for
Peter:	I'll say too, I think these are all in excellent, seemingly excellent, condition for the most part. I think they're more likely prone to physical damages from mishandling. Creases and tears and things of that nature. And then also from presentation methods. Mounting with wet adhesives, you get puckering, you get all kinds of physical distortions. Usually it's a thin paper.
Michael:	Well, and Do you want to?
Josh:	No, no, go ahead.
Michael:	Well, that raises a question, because should we talk a little bitI know we don't have too much extra time, but maybe Rose or Ximena, if you want to talk aboutI'm assuming that that maybe residue from the backing when these were
Ximena	

Santiago: Yeah, I had an image of the back and it looks like some of these may have been treated as wallpaper at some point, because they have residue across all of...

Peter: Of adhesive or...?

Ximena: We don't know what it is, but this is what the back of the smaller works...

Josh: Oh yeah. Yeah.

- Michael: Because these were probably not produced as works of art, they may have been mounted for commercial display. So, to the conservators—and Julia, you can ask this too—is there any issue about the adhesive residue on them that seems to be coming through at various points?
- Nora or Lee Ann: Well, they are what they are. And so I think if there are adhesive residues from older mounting, my guess is that the damage is done. I don't know, Peter, if you would recommend treating something like that, but I think that some of those flaws you have to accept and just try to monitor, document everything. Revisit your documentation if they're going to be shown, see if they're changing... Have a conservator come and look. Low light levels. That's my...
- Peter: If there were adhesives on the back that caused the staining and the adhesives were still on it, it would probably be prudent to remove what you could. But to go beyond that and do a cosmetic bleaching to try to get it back is not necessary or recommended.
- Thomas: It's probably very difficult to tell, but you do think the stain you can see from the face is a typically type of adhesive? Is it likely rubber cement or something like that?
- Peter: Looked like an Elmer glue from the images, but...
- Nora or Lee Ann: I was thinking rubber cement.

Michael: Rubber cement?

Nora or Lee Ann: It could be either.

- Michael: Because, Susan, I know that when you and Bob made your blueprints, some were sort of more artistic, but some were for commercial purposes. And maybe you mounted them occasionally? Like glued them to backings or...
- Susan: Not really. But originally it was all for our investigation and our pleasure, but then when we did the windows of... I forget, but the department store.

Michael: Is it Bonwit Teller [New York]?

Susan: Bonwit Teller. We were thinking how they would appear in the windows. But basically, when we began, it was just for the experience of it.



Window display at Bonwit Teller by Gene Moore featuring blueprints by Robert Rauschenberg and Susan Weil, New York, 1951. Photo: Unattributed. Collection of Susan Weil.

Michael:	When you did the Bonwit Teller windows, do you recall was that with Gene Moore, who was the window display director for
Susan:	Yes.
Peter:	Are those in your archive or at Bonwit Teller?
Michael:	Well
Peter:	Destroyed.
Rose:	[00:39:20] I think could Ximena speak to that?
Ximena:	I have been working on four Bonwit Teller panels—well, we believe they were hung at Bonwit Teller—that were created under the pseudonym Matson Jones [more on this topic on page 40 of this document]. And they're currently owned by Philip Williams, who owns the poster store [Philip Williams Posters, New York] downtown. And he received them from an assistant of Gene Moore's [00:39:47].
Peter:	Interesting.
Michael:	But that would be several years after.
Susan:	Yes. They were very early, Bonwit Teller. We were still in art school.
Peter:	Those were life size or full-size pieces?
Michael:	In a few minutes we're going to see images of those.

Nora or Lee Ar	In: Is there a chance these were made in an art school as sort of exercise of
	texture?
Susan:	No. No blueprints were in different art classes. I brought you a piece about my grandmother's piece, which was made in the 1800s. [See Susan Weil, "Once in a Blue Moon" (unpublished) or Weil, "Letter: Archival Print." <i>Artforum</i> 54, no. 8 (April 2016).]
Michael:	Right.
Susan:	And it's perfect, you know, from damage.
Antonella:	I'm a bit curious about this, because some of us were talking about Man Ray. What was your awareness, knowledge, of historical works?
Susan:	As children we did blueprints of shells and things. Paper clips and so on. Yeah, I gave you a better one. This is my grandmother. And since I'm eighty-nine, my grandmother would have been a little elder long ago. And there it is. I have the blueprint and it's perfect. Well, I mean Anna Atkins is the same time.

Fig. 14



Archival print of Susan Weil's grandmother, courtesy of Susan Weil

Julia:	How do you keep it? Do you keep it in a drawer or you have it hanging up or?

Susan: No, I don't have it hanging up.

Julia: Sue, there's a recent article that... Sorry.

Michael: No, go on.

Julia: ...that makes an argument that tries to tie your and Bob's blueprint production to the Bauhaus or just the kind of exercises that you were doing at Black Mountain and the kind of experimental hands-on work. [Vanessa S. Troiano, "The 'Bauhaus Idea' in Robert Rauschenberg's Blueprints," in: Wolkenkuckucksheim | Cloud-Cuckoo-Land |

	Воздушный замок, International Journal of Architectural Theory 24., no. 39 (2019): pp. 99–113.]
Susan:	We did no blueprints at Black Mountain.
Michael:	But what about things like Do you remember anyone at Black Mountain doing things like Man Ray's rayograms or—what do you call them—contact prints? Anything? No.
Susan:	No. We had a wonderful photography teacher at Black Mountain. Hazel Archer [00:42:25]. She did lots of things, but we didn't do those things.
Michael:	Okay. Good?
Antonella:	Let alone nineteenth century.
Michael:	Right.
Antonella:	Let alone.
Michael:	Yeah.
Antonella:	Yes. I mean, they were known, but not by practitioners who were making yeah. Interesting.
Maresa Carney:	May I ask a question about process? Did you ever practice on smaller sheets for your large-scale, to experiment?
Susan:	No. We made some smaller ones, but no. We would have a concept and a discussion, and we would plan a blueprint and we worked directly large.
Maresa:	And the follow up question, so the concept or preconception of the piece, how would that Did you sketch or did you just discuss, "Let's put some here and some"?
Susan:	We talked about it. And, like the figure, is it Bob? Is it about leaves? Or about you? We're trying to figure out how to use them to have a focus for that piece.
Peter:	Did you have any faults that you destroyed or didn't like or you
Susan:	I don't remember. It was a couple of years ago [laughter].
Peter:	I don't remember a few months ago.
Michael:	So maybe if anyone here has any last points about these, because we're going to be moving away from being around these amazing objects. Things you see that you're confused about? Actually, Josh, getting back to that question. So, an effect like this, where there's a kind of haziness. How does one get a kind of It looks like there's some kind of materials like grass or something like that. But why the haziness?

Josh:	And it looks like hair to me.
Speaker ?:	Yeah. Horse hair.
Susan:	It might be a movement of the light too.
Josh:	Yeah, so there's some sharpness.
Julia:	Just say the number.

Michael: Oh, so SC200.

Fig. 15



Blueprint [SC200] Attributed to Robert Rauschenberg, 1950s Wavy hair-like and fern-like shapes 15.125 x 14 inches

Josh: Right. So, what's striking about that image is that you have some sharpness from these kind of branches.

Michael: Yeah, branches.

- Josh: And then you have these sort of bleached hair-like waves of hair. And I think that they look like they're somehow not directly touching the piece of paper when the exposure was made.
- Christina: I just wanted to bring in the term "fogging." A lot of times if you have training in the dark room, fogging is something you're told to avoid. You don't want your paper to be fogged whether it's a silver gelatin paper or any light sensitive material. And so often that's the effect, where you might take a piece of paper out to print and then the image

isn't totally clear. It's kind of foggy like that and that could be that there was some unintentional light exposure before you...

Josh:Oh.Christina:So, I think it's a very normal part of all kinds of contact printing and photo grounds that
there's a softness to objects depending on how far they are from the paper and the way
that the light is going off the object.Susan:[crosstalk] Let me show them a detail and that is Bob right there.Kristen:I have one last question, too. I've been really interested in the gradient effect, and Josh,
I know you talked about it being potentially from a stone in SC193 [fig. 8], but I was
really curious about it in SC184. There is this very triangular [part] in the center. It could

be just from light not touching that portion, but it looks very deliberate.

Fig. 16



Blueprint [SC184] Attributed to Robert Rauschenberg, 1950s Chain, circle, needle?, bottle, and small confetti-like dots 10.75 x 9.625 inches

Josh: Right, this one looked to me—this is just my line of thought—it looks like a more focused kind of exposure of light here, and then here a little painting.

Michael: Right.

Josh: The rectangle with the light.

Kristen: And that looks naturally occurring.

Michael: Meaning the directionality of the bulb.

Josh:	Right. So, without a light in my hand, I'd be doing this and doing this and then not exposing this shaft as much.
Thomas:	You can definitely see evidence of that in the full-scale [<i>Female Figure</i>], if you're downstairs, as well. You can see the arc of the lamps moving around.
Josh:	Right.
Kristen:	So how long an exposure time do you think these might have had? Because if we were painting with light
Josh:	Depends on the light, depends on the paper.
Emily:	I've got a question about this one, SC181. I'm wondering if these squares could be negatives, meaning format negatives? I'm wondering if the image would show through more if it was a negative. But then the edges are kind of strange.



Blueprint [SC181] Attributed to Robert Rauschenberg, 1950s Five square-like shapes with feathers and pompom-like shapes 10.75 x 9.625 inches

Michael:	Yeah, that's what I've never understood. So what is it? SC181 [Fig. 17].
Emily:	181, yeah.
Michael:	SC181. The kind of square objects with something inside them. It's always confused me, that kind of off registration.
Emily:	Yeah, the lines aren't how you would think they would be with the negative, but they are just a very similar size of what that would be.

Michael:	Right. And then of course we haven't talked about it, but the flags—I've assumed were plastic, printed American flags. Although the question is, in the 1950s would you have had plastic flags like that?
Christina:	I think if you look closely, it's fabric.
Michael:	It's fabric.
Antonella:	There's a fold.
Michael:	Okay.
Christina:	Yeah, you can see a grain on the fabric.
Michael:	So, in SC186 [fig. 5], you think you can see the grain of the fabric in the printing? Okay.
Speaker?:	Yeah, and that honestly looks like cat litter [perhaps in SC193; fig. 8].
Antonella:	Which makes them [the flags] more translucent.
Christina:	Exactly. [inaudible 00:48:22].
Antonella:	That is fantastic.
Michael:	Yeah.
Antonella:	SC199 [fig. 2] is so, again they're needles from a plant over a double exposedI mean multiple exposed.
Madeleine:	It gives this really lovely frostbite effect.
Speaker ?:	Hoarfrost.
Antonella:	There's a photogenic <mark>toy by Todd [inaudible]</mark> that has only the needles. That kind of needle Recording
Nora or Lee An	n: I feel that's an [inaudible 00:49:05] group, is that the smaller ones all look to be very similar in size.
Michael:	Right.
Nora or Lee An	n: And I know the other ones are the same, but doing measurements it's interesting to compare how homogenous the group is and also the density of the blue. Maybe due to the fact that when these papers were made, they made them a little different than the way they make them now. And maybe there was just more material in that paper, and so you get this ridge. I don't know, but there's been some changes in

formulas over time.

Julia:	Also, just for the conservators, just looking very carefully at what Ware has written about how sustainable this is as a medium, it seems as though what the paper was and how long the water bath was also impacts. So, to some extant you might have a very resilient blueprint, or you might end up with one that's much more sensitive.
Peter:	Imagine the large ones were a little more difficult to properly wash, right?
Julia:	Well, we want to ask Sue about that, because it sure does look like [crosstalk 00:50:25]
Peter:	getting a shower spray down.
Julia:	Which is a little different than soaking them in a bath in the way that we did, for example, at Hunter. Where we really gave them a real bath. How long was it?
Christina:	Almost three or five minute wash, but we might have left them in ten minutes.
Peter:	Yeah.
Christina:	I actually had a question about that for the conservators. In a case where something wasn't washed long enough, what would it look like twenty years down the line?
Peter:	I think there's some yellowing that would happen. Right, that Prussian yellow that you I believe the yellow.
Christina:	Yeah, the yellow that you see before you expose it. That's what I expected.
Peter:	And I think that you can't after the fact, twenty years later, go and give it a wash to remove it.
Christina:	You can't? Oh, okay.
Thomas:	One thing I've been thinking about, just looking at them, is we could easily measure them all and perhaps we already have. But are some of these a standard sheet size? How much editing was there after they were made? Were compositions cut out of larger compositions, etc.? That would be really interesting for me to know and if anyone has an opinion or can see something I can't, I'd be interested to hear it.
Peter:	The use of a micrometer would be helpful too.
Nora or Lee Ani	n: For the paper thickness, yeah. But even the square format seems unusual.
Peter:	Although these are, right?
Rose:	Some of them are cut.
Peter:	Yeah. Some have

Speaker ?:	That's totally irregular.
Speaker ?:	But some have very similar sizes.
Christina:	Susan, would you ever cut them down after making the larger ones or always leave it the size that you worked on?
Susan:	Pretty much, yeah.
Speaker ?:	Leave it the same?
Susan:	Yeah. We were going to do a big one, we'd roll out the blueprint paper and work with that.
Michael:	So, we'll have a little more time for discussion. What we'll do now is we're going to head down to but don't worry We'll still get to see actual blueprints. You're going to head downstairs. Down there will be both a large-scale Susan Weil and Robert Rauschenberg blueprint. And then, several miniatures, including a miniature version of the large scale one. We're going to have some presentations from the students which will amplify all these questions, and then we'll have some time. Just in case anyone's getting a little peckish, we'll have time for some snacks, a little break, and then we'll wrap up with some discussion. But I want to say already, thanks to all of you for this, because this has been amazing and illuminating and we'll keep discussing.
Speaker ?:	Thank you, Michael.
Peter:	Yeah, thank you.
Speaker ?:	Thank you.

Francine: Oh, don't clap.

Kristen: So, we'll go down to the third floor. You can take the stairs. We also have an elevator.

Part II: Hunter College graduate student presentations

- 1. General timeline of Rauschenberg/Weil/Johns blueprint experiments (Madeleine Seidel)
- 2. Insights on technique gained from hands-on blueprint workshop (Erica Evans)
- 3. Rauschenberg and Weil miniature blueprints (Jacob Goldsholl)
- 4. Matson Jones blueprints for Bonwit Teller (Ximena Santiago)
- 5. Outstanding questions for the group (Rose Bishop)
- Michael Lobel: [crosstalk 00:00:00]. Okay, so we're on it. I'm going to be the task-master. I'm one of the teachers in the room. So, we're on a tight time frame, eyes on the screen. If the presenters can take your seats. Here's what we're going to do, we're going to have a series of very short presentations and all of the conservators and artists and foundation staff in the room have been to many

academic symposiums and I know sitting through presentations that are too long... So these are super, super short.

The students are going to lay out some of the issues and questions around some of these works. We have the great opportunity of having, again one of the largescale blueprints by Susan Weil and Robert Rauschenberg in front of us [*Female Figure*, ca. 1950 RRF # 49.E001] and then next to it, and this is a really great opportunity, it's miniature version [*Pat* from Blueprint Portfolio, ca. 1950 RRF # 51.E007] and one of the students is going to talk about this. So, I'm going to leave it over to them and they're going to sort of lay out, we have seen a lot of these objects in person. The students are going to expand our sense by talking about works that aren't here right now, give you a little context. We'll take a break for some snacks and then we'll have a final pedagogical discussion.





Robert Rauschenberg and Susan Weil Female Figure, ca. 1950 Cyanotype 104 5/8 x 35 7/8 inches (265.7 x 91.1 cm) RRF # 49.E001 Fig. 19



Robert Rauschenberg and Susan Weil Pat from Blueprint Portfolio, ca. 1950 Cyanotype 11 7/8 x 4 3/8 inches (30.2 x 11.1 cm) RRF # 51.E007

Madeleine Seidel:

All right, perfect. So let's get started. I am Madeleine Seidel. I already introduced myself upstairs, but I'm going to talk about the general timeline that through our research we made to foreground a lot of these blueprints that we are seeing today and I'll just get to talk about this. In our research, we found that establishing a timeline of blueprints created by Susan Weil, Robert Rauschenberg, and Jasper Johns in the early 1950s was extremely helpful, and considering these blueprints in the context of both their specific blueprinting practices and each artist's body of work.
 Madeleine: The earliest blueprints that we have studied were the result of Weil and Rauschenberg's fruitful artistic partnership between 1949 and 1952. After meeting each other at Paris's Académie Julian as art students, Weil and Rauschenberg left France and spent a formative year at Black Mountain College near Asheville, North Carolina, under the mentorship of faculty such as Josef and Anni Albers. The couple left Black Mountain College in 1949 and spent their summer at Weil's family home at Outer Island, Connecticut. It is here that Weil

teaches Rauschenberg how to blueprint based off of the method that Weil's

Madeleine: Following Weil and Rauschenberg's marriage in 1950, the artists began creating blueprints in their small Manhattan apartment. Some of these blueprints were commissions for window displays at the department store, Bonwit Teller, from which they were able to financially support themselves. 1951 is a critical year in studying Weil and Rauschenberg's blueprint collaboration. In April of that year, the artists are featured in a *Life* magazine article entitled, "Speaking of Pictures: Blueprint Paper, Sun Lamp, and a Nude Produce Some Vaporous Fantasies," which includes photographs taken by Wallace Kirkland [*Life* 30, no. 15 (April 9, 1951): pp. 22–24.]. From a research perspective, the detailed photographs of Weil and Rauschenberg in multiple stages of the blueprinting process have been invaluable to us as a means of further understanding and replicating their methods.

grandmother taught her when she was a child.

Madeleine: A few weeks after this *Life* article, Weil and Rauschenberg's *Female Figure* [fig. 18], which you can see in an exhibition up there and is made in 1950, is shown at the Museum of Modern Art [MoMA] in the Edward Steichen curated show Abstraction in Photography [Museum of Modern Art, New York, Abstraction in Photography, May 2–July 4, 1951]. At the end of Weil and Rauschenberg's longterm artistic collaboration, Rauschenberg spent some more time at Black Mountain College and continued his experimentations with blueprints, including one he made in 1942 for Hermine Tworkov [fig. 10], the daughter of Abstract Expressionist painter Jack Tworkov. In the latter half of the 1950s, Rauschenberg supplemented his income by collaborating with Jasper Johns on blueprint window displays for Bonwit Teller and Tiffany & Co, under the pseudonym Matson Jones. Even in this period, Rauschenberg would reference his and Weil's earlier collaborations on the blueprints by including a small replica of *Female* Figure in his 1955 Combine Odalisk [RRF# 58.001]. This timeline shows the breadth and research of these various experimentations with blueprints by some of the central figures in American art of the postwar period.





Installation view of the exhibition, *Abstraction in Photography*, May 1, 1951–July 4, 1951. Photographic Archive. The Museum of Modern Art Archives, New York. IN476.2. Photograph by Soichi Sunami.



Robert Rauschenberg *Odalisk*, 1955/1958

Combine: oil, watercolor, pencil, crayon, paper, fabric, photographs, printed reproductions, miniature blueprint, newspaper, metal, glass, dried grass, and steel wool with pillow, wood post, electric lights, and rooster on wood structure mounted on four casters 83 x 25 1/4 x 25 1/8 inches (210.8 x 64.1 x 63.8 cm) Museum Ludwig, Cologne Madeleine: So now I'm going to pass it off to Erica.

Erica Evans: I'm Erica Evans. I'm going to be talking a little bit on some insights on the technique behind creating these blueprints. One of the key documents that provides context for our discussions today is an article from *Life* magazine in April of 1951, appearing in a long running section of the magazine called "Speaking of Pictures," which highlighted various uses of photography. The article featured a series of collaborative blueprints made by Susan Weil and Robert Rauschenberg. The *Life* article is illuminating in a number of ways. For one, as we can see here, it captured a number of works by Weil and Rauschenberg that, as far as we know, no longer exist. These then are the only record of their existence.

Erica: In addition, archival negatives taken by *Life* photographer Wallace Kirkland offer behind the scenes looks into the process from various views of Weil and Rauschenberg small apartment on the Upper West Side to expose blueprints prior to being washed as seen here on the right, to illuminating details like a GE bulb and a satchel at the lower left. Other pictures by Kirkland seem to document the multiple exposures that may have been used in creating the blueprints. Should we take the images above along with the final work below [included here as fig. 22], as evidence that the skirt was exposed before the model lay down on the paper, or would it have been the reverse, and wouldn't some masking have been needed to do so? These documentary photographs are a start to our discussions today, which hopefully will clarify the likely steps in the process. My fellow students, Dana Notine, Ximena Santiago, and I attempted to recreate female figure in the hopes of better understanding how the blueprint was originally made. I especially was hoping to learn more about how the front of model Pat Pearman's hands and chest appear in such detail in Female Figure, which luckily we have right here.



Photographs by Wallace Kirkland, spring 1951

Erica:

We have previously experimented with blueprint making in class by exposing different objects to light. However, when washed in water and peroxide, the images did not develop properly and in time the entire image became almost purely white. We were hoping to avoid this with our new blueprint. To create
our blueprint, I laid on the paper for ten minutes under UV bulbs. We used approximately eight different sun lamps with bulbs. We attached the majority of them to chairs to keep them steady and Dana and Ximena each circled with an extra strength bulb as well. We also used a reflection screen to try to direct any escaping light back onto the upper half of the model. We were trying to get as much light as possible on the upper half for the best chance at getting details in the hands. As you can see from the photos, it began as a success. After ten minutes of solid exposure, I got off the blueprint to a visible outline on the paper.

Erica:

Our next step was to wash the blueprints in water for about five minutes and then spray with peroxide, as we were told it would help achieve deeper blues. However, when we washed the blueprint with water, the form was lost and the entire image became largely white with only one blue patch.





Hunter College full body test blueprint, before washing



Hunter College full body test blueprint, after washing

Erica:

We think that part of the problem was due to the insufficient exposure time. We only exposed the paper for about ten minutes, but in retrospect perhaps we should have spent twenty or even thirty minutes with the bulbs. Despite not producing a very beautiful result, our trial with the blueprint was beneficial. It made us wonder even more about Weil and Rauschenberg's blueprint making process. How did they achieve such a clear and well-developed result? Even before we washed the blueprint, when the form was still clear, we were not able to get any of the details that are found in *Female Figure*, such as the lines on the fingers and chest. Erica: Overall, we would like to know about how our materials differ from the ones likely used in the 1950s. Is there a different formulation in the blueprint paper? Were the UV bulbs stronger? Was it simply that we did not expose the paper for enough time? Or is it some combination of all of these elements that led to this result? Thank you.

Jacob Goldsholl: I'm Jacob Goldsholl and my topic is going to be the miniature blueprints, some of which were viewable back there [he is referencing several blueprints from the blueprint portfolio that were hung in the kitchen at the Foundation] and then one right there [Pat from Blueprint Portfolio, ca. 1950 RRF # 51.E007; fig. 19]. So around 1951, Robert Rauschenberg and Susan Weil created miniature versions of some of their full-scale blueprints. Projected here is the full set of ten miniatures in addition to one image which serves as a cover for the set which is the one in the top left-hand corner. The reproductions seen here were delivered to a childhood friend of Rauschenberg [Arthur W. Frakes] and are now held in The Menil Collection in Houston, Texas. Here at the foundation, there is a set of only eight images which includes every miniature except for the cover, Susan [which in fig. 24 is pictured directly to the right of the cover], and Light Born in Darkness which is on the bottom right-hand corner. Each miniature and both sets include a small strip of yellow paper at the bottom on which a title is written in either blue or black ink.



Robert Rauschenberg and Susan Weil Blueprint Portfolio, ca. 1950 Portfolio of ten cyanotypes 6 x 14 inches; each (15.2 x 35.6 cm) The Menil Collection, Houston RRF # 51.E007

Jacob:

The only miniatures that don't have written titles are the images of Susan Weil holding a cane in both sets and the female figure blueprint incorporated into a Combine work by Rauschenberg and titled *Odalisk*, which is now at the Museum Ludwig in Cologne Germany. There is some variation but the miniatures range anywhere from approximately six to nine times smaller than the size of the original full-scale blueprints. Because of this difference in scale, some details and subtleties which are visible in the original blueprints were lost in the transfer process. This miniature titled *Pat* [RRF #51.E007; fig. 19], is a fine example of this and the full scale original—which Weil and Rauschenberg titled *Female Figure*—which is viewable right here; there is a great deal of tonal range between the extreme lights and darks in the picture. The contrast in the miniature is much higher and therefore results in a denser overall image. The darks are darker, the lights are lighter and there is less variation in the values between them.

Jacob: Aside from these differences in contrast, the cropping of the miniatures also offers interesting and illuminating insight into the process of production. For instance, in the miniature titled *Balance*, which is on the left, Weil and Rauschenberg cut off the feet of the figure at the top of the image which are visible in the full-scale original at right. This combined with the fact that much of the mid-range values were lost in the transfer process results in a much more ambiguous image. Were these differences a simple side effect of the transfer process or rather was there some kind of intentional strategy, a deliberate move to make the miniatures' status as reproductions more evident? These were among the questions I pursued throughout my research with the series and yet the very method of the production of this series still stands as a question: How were the miniatures made?

Jacob: In an interview with curator Walter Hopps in 1991, shortly before the discovery of the set now at The Menil Collection, Rauschenberg stated that the miniatures were made by photographing the full-scale images in black and white and then printing them on blueprint paper. Susan Weil on the other hand, has stated the copy negatives at the scale of the miniatures were used to create the set. Both accounts of the transfer technique could feasibly have created the miniatures. Could both of these methods have been used at various times to create selected versions of the twenty known to exist today? Questions remain as to whether there was one clear purpose behind the miniature blueprints, but between their use as a gift and as an element within a Combine, we have at least a decent idea of why they may have been created. Nevertheless, their existence comprises a component of the larger body of blueprint works by Weil and Rauschenberg and offers meaningful insight into the creative and technical processes of the artists. Thank you.

Ximena Santiago: I'm Ximena, and I will be presenting on the Matson Jones works. At some point between the summer of 1954 and 1958, the exact date is still unknown, Jasper Johns and Robert Rauschenberg created four cyanotype panels under the shared commercial pseudonym Matson Jones. During this time, both artists were living in studios near or neighboring each other in Manhattan's Southern Seaport District. To earn additional revenue, they formed Matson Jones Custom Display and worked with window designer Gene Moore to produce displays for department stores including Bonwit Teller and Tiffany's. Each of these four blueprints measures 14 feet in length and 42 inches across. The top and bottom portions of each panel, which appear to be browning, were likely left unexposed.

Fig. 25



Matson Jones Untitled (Jasper Johns Blue Ceiling), ca. 1958 Cyanotype Private collection

Ximena:

The current owner Philip Williams notes that this may have occurred because the paper was mounted on rollers while hanging. Williams received these four blueprints from an assistant of Gene Moore in the mid 1970s and believes that they were used at Bonwit Teller. Photographs of Moore's archives [Gene Moore, Tiffany & Company Photographs, Archives Center, National Museum of American History, Washington, D.C.] document other Matson Jones works from

	the 1950s which include plaster-cast caves and leaves, paper cutouts of birds and three-dimensional cast fruit. These four blueprints show underwater scenes that features what looked to be male figures in varying poses. In two panels, the figure holds a trident. Sea motifs such as crabs, lobsters, sea urchins, fish, and coral-like shapes surround the figures. In this detail, the outlines around the figures, face, neck and arms are sharp and create a high contrast between the white color of the body and the blue tones around it.
Ximena:	Documentary photographs show that live models were used in the blueprints that Rauschenberg and Susan Weil created in the 1950s, but I am wondering whether, in this instance, Rauschenberg and Johns used cutouts to create the sharp outlines. In this detail, the figure's left arm appears to be reaching across the chest to hold the trident suggesting that the body was not lying flat against the paper during exposure. However, both sides of the neck and facial profile are starkly delineated. Would this type of sharp outline be possible with a three- dimensional body that was not laying completely flat?
Ximena:	As my classmates have previously mentioned, when we attempted to recreate blueprints early in the semester, we were not able to achieve the high contrast the Matson Jones did. While a short exposure period may have caused this result, I am wondering if other aspects of these images, like the sharp detail of the hand holding the trident, can help us determine whether cutouts were used instead. The detail on the right shows a light blue color visible within the white color of the feet. I have also wondered whether it's possible for UV light to shine through certain body parts or how would that blue color have been subtly mixed in with the white? Could this be evidence perhaps of a double exposure?
Ximena:	From previous blueprint tests, we also discovered that the textured effect observed throughout the four panels may have been achieved by crumpling the paper and exposing it while in this folded state. Although the test piece on the left does not have the same sharp crease lines that the Matson Jones detail on the right has, the effect is visually similar. The exposure time for the test on the left was about twenty minutes with one UV light. To further complicate the exploration of techniques used in these works, the artist appeared to have used a crinkling effect on only certain parts of the paper. This detail shows that the textured effect surrounds the figure's arm and extends over the chest area. How would this overlapping effect have been created? Is it possible that the crinkle portion of the paper and the figure itself were exposed at separate times or would this layering effect be possible by exposing both at the same time?
Ximena:	The Matson Jones blueprints also contain miniature signatures, one of which is shown in this detail. Part of my research has involved speculating on how the two artists may have created these small signatures. The letters in the signatures are uniform in size and shape but appear in varying positions. The Matson Jones detail furthest to the right shows that the S and the O letters in Matson are touching, but those same letters have some distance between them in the Matson Jones detail to the left. One of my additional blueprint tests, shown furthest left, demonstrates that the signatures may have been created

with alphabet pasta letters like those from a can of alphabet soup. The small size of the pasta would allow for a variety of individual placements and would have been easy to remove from the paper once the exposure was done.

Fig. 26



Matson Jones Untitled (Jasper Johns Blue Ceiling), ca. 1958 (first panel, detail)

Ximena:

In a last minute email exchange just yesterday, Professor Lobel, who is bothered by the inconsistency in Serif and Sans-serif fonts between the Matson Jones signature and the alphabet soup letters, proposed a different, yet still foodbased, theory: that the signature was achieved by using the breakfast cereal Alpha-Bits. The Serif typeface of the cereal letters from a period print advertisement matches the Matson Jones lettering more closely. If this theory proves correct, it could also help with the dating of these blueprints, a task which has hitherto proven difficult. We know that Alpha-Bits cereal was introduced in 1958 which suggests that the Matson Jones blueprints would have been created in that year or after.

Fig. 27



Life magazine, August 11, 1958

Rose Bishop:	Hi, my name is Rose and I'll be wrapping up our presentation with some outstanding questions and I also just want to extend our thanks to the foundation and Professor Lobel for setting up this symposium. We're really looking forward to the ensuing dialogue. The hands-on nature of this graduate seminar has given us all the opportunity to reevaluate the importance of experimentation as a research tool. For example, the workshop with Hunter instructor Christina Freeman fundamentally shifted my understanding of the object I was assigned to write about [Blueprint, crumpled paper, SC192; fig. 3], which is pictured on the screen and which we discussed upstairs. As I described upstairs before our blueprinting workshop with Christina, I believed that this effect was produced by laying a piece of wrinkled cellophane or tissue over the blueprint paper as most of the works in the series are contact prints. In action however, this theory failed, so we turned to Christina for help.
Rose:	She suggested that we approach the work from a literal standpoint by exposing a crumbled-up ball of blueprint paper, which proved to be a close match to the blueprint held at the foundation. Our rediscovery of this technique was a eureka moment in my research, providing yet another example of Rauschenberg's interest in the material possibilities of paper at its most profound simplicity. This anecdote not only speaks to the value of experimentation, but to the importance of professional guidance, particularly on subjects that we, as art historians in training, have little to no familiarity with. Many of the questions that we devised for today's discussion cannot be answered with a quick Google search or by consulting a book and require in-person dialogue with an authority figure on the subject. Luckily, the foundation and Professor Lobel had provided us with the opportunity to do just that.
Rose:	Before this event, we circulated a list of our most pressing questions, which I will now go over in brief. To begin, in comparison with the hands-on experiments conducted by students in this semester's Hunter College seminar, Rauschenberg and Weil achieved a high level of contrast between the blue and white tones in their blueprinting. Is it possible that this was a result of their use of hydrogen peroxide or other chemicals? Is it just that they used a longer exposure or is it possible that the UV bulbs manufactured in the 1950s were stronger and less regulated than those available in 2019? In <i>Female Figure</i> , which Erica discussed earlier, which is hanging right up here, details such as the lines on the blueprinted figures hands are clearly visible. How might this effect have been produced? Is there any evidence to suggest that the blueprint paper used by Rauschenberg and Weil may have been more sensitive than commercially available options that we have today or could this have resulted from other techniques? For example, a double exposure or shining a light through the paper from its underside.
Rose:	Photographer Wallace Kirkland's images for <i>Life</i> magazine in 1951, show Rauschenberg dabbing the exposed blueprints with a towel and spraying the images with the shower head. Considering the information about Rauschenberg and Weil's creative process that can be gleaned from the <i>Life</i> photographs, is it possible that the blueprinting process did not include soaking the prints after

exposure? How important is a water bath step in blueprinting and does skipping or truncating this step in the blueprint process affect the final work in any way? As Jacob mentioned in our research, we found conflicting information as to how Weil and Rauschenberg's miniature blueprints from 1951 were made. Some accounts say that the negative or say that a negative or transparency was used while others suggests that a black and white print was placed on top of the blueprint paper. Are there methods that would allow us to identify the blueprinting process used in the miniatures? That wraps up our questions and as experts in the production and conservation of blueprints, your input on these questions is greatly appreciated and we look forward to the ensuing dialogue.

Michael Lobel: So we'll now take about twenty or twenty-five minute break. We'll have snacks, people can kind of stretch a little bit, and then we'll have another little bit for discussion as Susan, Peter, Josh and myself will sit up front, but really, that'll just be a way of kind of focusing and we'll all discuss some of these remaining questions. And I just want to thank all of you, Madeleine, Erica, Jacob, Ximena, and Rose for your presentations. Thank you. [crosstalk 00:25:32]

Part III: Group Discussion

- Michael Lobel: Okay. So, the goal now is to return to some of our questions that have been raised today. I know that we've been talking, but in part we'd like to get some stuff down on the recording. Now, Julia and Kristen, are we, is there a handheld mic or if people ask questions, how...
- Kristen: Your table is miced.
- Michael: Okay, so my goal now is that we've been immersed in what the foundation has been calling the Study Blueprints upstairs. We've had a chance to look at the miniatures, and this amazing comparison of a full scale with a miniature [*Female Figure* and *Pat* from Blueprint Portfolio; figs. 17 and 18], and the students have raised some questions, so maybe we'll get to them.

I want to start with you [Susan Weil]. One of the things that's come up as the students and I have had these conversations over the course of a semester is that the blueprints that you made, and you and Bob made, in this period, including this one, are... And actually, the genesis of this study day and a lot of my work and the class, was my initial impression, very early on, that the blueprints are more complicated than a lot of people think they are.

A lot of people just think someone came and laid a few things down on a piece of paper, exposed it and then took it off and that was it. Washed, and that was it. I know people have been talking, but even things like... So, we have two things we can start talking about here. One is some of the effects that are going on here [gesturing to *Female Figure*], and then also comparisons between these. So, first of all, just to notice almost the auras around the figure and some of these aspects here, and then Erica and Rose talked about some of the things going on here. So, maybe we could just start out as a

group. I don't know if Susan or Josh or Peter want to address this, but at its most basic, could we as a group, come up with a kind of account of how some of these effects were created?

Susan, we asked earlier, but I want to return to something like this. This [referring to *Female Figure*] looks complicated. There are these things here, there's the kind of aura here. If anyone can't see there's a footprint. There are certain writings about these blueprints that say, "Oh, the foot got there accidentally." And I've been saying to the students, "No, because, someone would have had to leave their foot there for a while in order for it to be exposed." So, you don't have a sense that you made a sketch or that you took notes and said, "We'll do this first and this first"?

- Susan Weil: No. About the footprint that's whoever was holding the light, and it wasn't really meant to be there, it just was there, but we wanted to create a dark aura around the top of the figure and that's... You do it with how you move the light and so on. And I think this is a beautifully handled background here. It really is. A lot of the position of the model was because you have to be lying on the floor for twenty minutes, [and it has to be] possible, so you're getting a look you want, but also that she survives it. So that's one thing, and I just think the backgrounds of this [the blueprints, specifically *Female Figure*] are very significant. They're not always. A lot of times it's plain dark blue in the back. But here it's like painting. You're painting with lights.
- Michael: Susan, you may not remember this, but this is also a question for Josh and Peter, but also I want everyone to contribute. So, my sense is that the dark blue would be gotten by training the light close to the paper, and leaving it for a while. Yeah? And for the purpose of the recording, I'm looking in the hip area of the figure. What about these kinds of whiter areas on either side? Would that be fabric? Would that be masking?
- Peter Mustardo: Well, that one image of the skirt or... that was kind of exposed first. Was that something that would've been done here to mask it?
- Susan: No, this is a nude figure. And the one with the petticoat, that was me. But this, I just think it's that you were wanting this... This was important, and this was important. You wanted this to look more white and so, but you got some close color on the center where he wanted to see it and it's a matter of working with the light.
- Michael: So, it's like treating the different areas differently, to get these effects.
- Susan: Right. Yeah. This is a very interesting one because, the way it's handled in terms of the background is quite wonderful.
- Joshua Chuang: I do have a question, however, about this edge here and how one would achieve that with [crosstalk 00:06:38], rather than if you look at that photograph, it's more of a gradient. And that's...
- Michael: So for instance, we're talking about the right side of the figure...

Susan:	The edges.
Michael:	This edge. Would that be masked, or? Does anyone have a sense?
Susan:	Maybe it's close to If you're tilting the light, so that here the light is very clear about where the edge of the light
Michael:	But my sense is that if you're putting the light here, then this would be blue, right?
Joshua:	Something's blocking the exposure.
Peter:	Some sort of an object, yeah.
Speaker ?:	What about the top of her thigh? The curvature of her leg. The light could just be going and then around
Speaker ?:	Is it possible the figure that the woman is actually kneeling
Susan:	No.
Speaker ?:	And not laying flat?
Susan:	She was laying flat.
Michael:	Sometimes I've wondered here, if part of it was exposed with her face down and part of it exposed with her face up. Do you see this? So is it possible she shifted position halfway through?
Susan:	No, it was one position for the model.
Michael:	Okay. Julia?
Julia Blaut:	So Sue, the thing that I just can't figure out, how her palm, if you look at the top, how her palms more like a regular print.
Michael:	Like a palm print.
Julia:	Like a palm print or a fingerprint.



Robert Rauschenberg and Susan Weil Female Figure, ca. 1950 (detail)

Michael:	So, see there, that you can see the
Julia:	Or like her bathing suit top, or even just the whole underside of her body seems to have imprinted. How would that happen?
Susan:	You know, it's hard to answer that. I wasn't the one with the light there. But if she has her hands up on the paper and then a little up Just working with the person making the blueprint and the person, and the model
Michael:	Was it—Peter or Josh, said to one of the students at the break—something about sweat.
Josh:	That's a non-scientific hypothesis about what might be going on with some of the tonality.
Peter:	Or the pressure, may have varied.
Josh:	The pressure.
Peter:	Right? And the hands, maybe the hands came up a little bit, rather than hard pressed on the paper.
Michael:	That I understand. For instance, when the fingerprint is dark like that, that means pressure, but I don't understand how, the way that the blueprint is made, you get the line of the palm. Unless, the light is shining through the skin.
Susan:	I think it's that you're perspiring and so that
Josh:	Yeah, I think that's something [crosstalk 00:09:49]
Susan:	against the paper, so you'd have perspiration there.

Josh:	I think it's something with the developing and exposing at the same time.
Michael:	And would the conservators think that could be a result of salt or depositing or
Nora Kennedy c Lee Ann Daffne	r: You know, honestly I don't know chemically, how that would work, but that's what makes the most sense to me. I mean the navel is also as dark [crosstalk 00:10:08] and she would've been lying there for quite a while. Hot lights
Michael:	Hot lights. So, maybe perspiration.
Nora or Lee Anr	n: Yeah, again chemically, I don't how that would work.
Julia:	That makes sense.
Josh:	And she's not wearing a bathing suit is she? She's
Susan:	No, she's naked.
Josh:	She's naked, okay.
Nora or Lee Anr	n: Yeah, I think the light is just, they're putting the light down [crosstalk 00:10:33].
Speaker ?:	Oh, so some of it is just the movement of the light around the body.
Josh:	Yeah, that's what's happening, too.
Speaker ? [Xime	ena?]: That's the problem with the neck, like the head is so rounded, you can only create so much light going around the face.
Susan:	[crosstalk 00:10:42]
Michael:	But the one thing that I don't understand is down here. Because if you're flat
Speaker ?:	This is the only part of your foot that lays down flat.
Michael:	Oh, I see.
Speaker ?:	Only part of your foot stays on the ground. So, the rest of it, the light goes around.
Michael:	I can't do that now, because I have shoes on.
Speaker ?:	Right.
Michael:	Christina?

Christina Freeman: When you started talking about perspiring... I was wondering if the other conservators, if they think that possibly the oils on your hands could act as a resist, so that when you're rinsing, processing, that chemistry wouldn't be washed away as much? Hard to say. Michael: Say that again. So, you think that if you're... Christina: The oils on your hands might... Peter: That's an interesting [crosstalk 00:11:24]. Christina: ... act as resist on the paper, so that when you're processing after exposure, the water wouldn't rinse away that chemistry. It might stay, like protected. Peter: That's very interesting. Michael: And building on that, Rose, you had a question about... for the conservators and also Christina and others, about the question of the bath. So, Sue, just to give it a little local color. I remember when I interviewed you several years ago when I was writing for Artforum ["Lost and Found." (Feb 2016)], you gave me this colorful anecdote because you were sharing [the] kitchen and bathroom with your neighbor and so... There are the famous photos of, well to me they're famous... Speaker ?: [crosstalk 00:12:15] in the bathroom [crosstalk 00:12:17] with buckets Michael: ... of both of them in the bathroom. So first I said, "Well, wait a minute, what did your neighbor do when you were doing this?" And she said, "He just waited." Susan: Yes, he didn't like us. We had to share the bathroom and share the kitchen because we were poor people, and so he didn't like us at all. Michael: He didn't realize how... what import this had of historic... Susan: It didn't have any import to him. Michael: But the question Rose had was for the people who know a little bit more about this technically... when we made blueprints with Christina [Freeman], they were put in a bath. This is more of a rinsing process. Would that have some impact on the developing process and then the final... Yeah? Speaker [Nora?]: You could selectively wash, but I don't think these are selectively washed. Michael: You think that, that's enough? Just putting them... And I love, if you can't see it, they must've been wet and then just stuck on the wall.

Nora or Lee An	n: You would spray the wall, so you would have some grab, and then you would put your print up there, and then you would just hose it down. They probably had a hose and
Susan:	And peroxide on the sponge.
Michael:	The sponge.
Antonella Pelizz	zari: Oh, a sponge, it looks like he has sponge on the right.
Peter:	And that's to intensify the cyanine dyes right? To The peroxide.
Michael:	Well, yeah, in fact, there's always this I've always thought that this bottle there was probably hydrogen peroxide. Do you remember, maybe? It's not an uncommon
Susan:	No. We did use peroxide, but I that might be soap or Coca-Cola or
Michael:	And so, does the hydrogen That was another question
Rose Bishop:	Yeah. Does the hydrogen peroxide increase the contrast in the print? Yeah, I guess I'm just a little confused as to what the peroxide's function is.
Susan:	It fixes the process. It's like when you make the photographs and you have to fix them, but there are other ways and now the new blueprints you don't have to use that.
Maresa Carney	[crosstalk 00:14:35] We used a [crosstalk 00:14:35] but it all kind of washed out ultimately. It just helped develop quicker, but then at the end it wouldn't really make a difference. It's just the bath. Once put in the bath, we would see contrast quicker, if we used hydrogen peroxide, but the end result was the same.
Christina:	So, that's what I wanted to make clear with the workshop, and I tried to say a few times, but I don't think it stuck, was my understanding of hydrogen peroxide is the idea of the oxide. So, you're speeding up the oxidation process that happens, anyway. And if you were to wait twenty-four hours, you would get the same result. But if you're impatient and you want to see right away, you can add the peroxide, but that the water is the part that fixes the
Peter:	Right, it's about the-
Michael:	It sort of relates to the discussion earlier about the oxygen, actually-
Peter:	Yeah, the peroxide is supposed to you're going to get a deeper blue, faster than if you do normally. But it's the wash that's going to fix the image, to remove the light sensitive material.
Michael:	And so this process in the shower will remove it as much as the bathing?

Peter:	Well, yeah.
Michael:	Probably.
Peter:	If you rinse it thoroughly, a bath is preferred I presume, but not always possible.
Michael:	These weren't the ideal conditions. They worked well enough.
Peter:	Amazingly well, really.
Lee Ann or Nor	a: Well, I still wonder about the exposures, whether you guys were exposing long enough [crosstalk 00:16:08] because it is curious that if you do get images that
Dana Notine:	I think that we always kind of underestimated how long had it would take, consistently. Even with someone did a ten minute exposure and really everything still didn't last [crosstalk 00:16:25]
Lee Ann or Nor	a: You had that one where you had one dark area?
Dana:	Yeah, that was, was that ten minutes?
Erica:	Yeah, for our recreation of the Female Figure we did for I think
Dana:	That was ten minutes?
Erica:	I think it was ten minutes. It was maybe ten or fifteen minutes, under the lights, and then it did imprint form onto the paper, but it was when we washed it, that it all kind of washed away [fig. 23].
Dana:	And we were unsure as to why only one of the bulbs yielded a real impression, because as far as we know they're all the same bulb. I don't know if they're from different companies, maybe.
Christina:	All of the LEDs were the same, but I just wanted to say that with the same paper, I did test exposures under sunlight in the middle of the day for fifteen minutes and I had a good exposure that lasted after washing. It was just the time
Michael:	To put a historical gloss on this, in the photos that Wallace Kirkland took—now most of them did not appear in <i>Life</i> and part of what I wrote about for <i>Artforum</i> was finding his archival photos that revealed more. And in one of my favorites, which is this one, there is a satchel here and you see the GE logo, out of the satchel. And I think that gets to the fact that I think we just don't have the same kinds of bulbs, that you had then. So I imagine that may have some impact on the exposure as well.
Susan:	One thing, I was thinking about, when I looked at some of the work you did in trying to be comfortable with blueprint was the lights were fixed. They were on chairs and things.

	Somebody was always holding our lamps and moving around and that's why you get these controlled areas of background.
Michael:	But I'm assuming that an effect like this would have been someone holding the bulb, see like this. So that right there, and then you get the light sort of stretching out. You see how the bright blue right here, there's almost a kind of
Susan:	Yeah, but then, you're doing this for a while, and then you're doing this for a while, but this the brighter part are, because of what is touching the paper.
Michael:	But have you ever thought about this? I'm having a kind of art historian's gloss on this, which is, I've always seen these in photos. So, you or Bob are just holding a lamp like this. But when I think about the two of you moving around like this, I think about Jackson Pollock and that kind of dance of painting. And then you and Bob transferred that performative dance from painting to photography.
Antonella:	Painting with light.
Michael:	Yes.
Susan:	Yeah.
Antonella:	It sounds like
Susan:	Painting with the light.
Antonella:	The way you say it It sounds like you're painting with light. [crosstalk 00:19:15]
Susan:	Right, right. That was the difference I felt when you were describing what happened when you were making the blueprints for your school.
Madeleine Seid	el: Did y'all ever have and maybe this is more of like a blueprint experiment that would've been a lot more evident in the study blueprints But did y'all ever have instances where instead of moving around, you held a light there and would that get really vivid blues right over where the light was held and then kind of faded out
Susan:	Yeah, that's the amount of time you have on certain areas, whether you're near or far.
Kathy Halbreich	What does it look like on the back of this?
Michael:	On the back of
Kathy:	The blueprint.
Susan:	White paper.

Kathy:	It's all white? So, there was nothing that would come You never flipped it, so that you were working on both sides?
Susan:	No.
Peter:	But, I heard from one of the students that in the experiment that you did, that you were working, in some cases with double-sided cyanotype paper?
Maresa:	Yes, that's true Yeah, the paper that was small. The small strips were double-sided.
Christina:	The large was also double-sided. But did you try both sides?
Erica:	No, I didn't try both sides.
Dana:	And we did have a bit of movement as well, which I want to emphasize. Ximena and I were moving, what we thought were the more powerful lights, during the whole ten minute process. So, we were trying to emulate that kind of movement. So, yeah. Better luck next time.
Antonella:	How long did it take here? I'm thinking of you and your experience, you just said ten minutes?
Dana:	It was more.
Antonella:	How long did it take, this [Female Figure]?
Susan:	Twenty minutes to a half an hour, something like that.
Josh:	So, it's possible that the bulbs were stronger. It's possible the paper was more sensitive.
Peter:	Exposure was longer.
Josh:	Exposure was longer.
Peter:	The whole combination, yeah.
Antonella:	Half an hour's pretty long. It's a lot of work, half an hour.
Peter:	A lot of work. Very physical.
Susan:	It's not comfortable for the model either.
Maresa:	Did you work at night mostly or did you have the room sealed, blocked off?
Susan:	Well, when Bob and I worked in our apartment on 95th Street, we worked in the day, mostly.

Maresa:	So, you had to make sure there was no sunlight then.
Peter:	The curtains are drawn here. The shades are down, right? Yeah.
Emily Henson:	Susan, how many lights would you use for an exposure, like the Female?
Susan:	Usually one.
Dana:	That's amazing.
Emily:	Because you guys had like what? Five or six lights?
Erica:	Ten. Like eight, yeah.
Susan:	Because they were stuck on to chairs and they were still, but
Emily:	You'd only ever use just one at a time?
Susan:	Well, mostly somebody was doing all that light work. We were a team, but sometimes I had to light In the <i>Double Rauschenberg</i> [Untitled [double Rauschenberg], ca. 1950 RRF # 50.E001], that was in MoMA [the exhibition <i>Robert Rauschenberg: Among Friends</i> , Museum of Modern Art, May 21–September 17, 2017, traveled], I was the light person, Bob was the model.
Julia:	That would have been an example where you masked out half of the sheet and then expose the other side at a different time.
Susan:	Right.
Madeleine:	Did you just use regular paper to mask out those sections? Or how? Like what?
Susan:	Ask me what I had for breakfast, fifty years ago.
Michael:	So, shifting a little bit to the conservators, there are questions about this. Is there yellowing on the edges? Is yellowing on the edges of the large-scale blueprints from leftover chemicals or perhaps from aging paper?
Nora or Lee An	n: I think it could be both or either.
Peter:	Yep, sure. And the edges are more susceptible to the interactions from the atmosphere. So, not unlikely, in some, from processing or lack thereof.
Michael:	Right.
Nora or Lee An	n: And, you can see in the highlights, the paper's quite worn, which speaks to a fairly high quality paper. And the fact that you have full-on, the discoloration along the edges, might even be from long storage, more exposure to sunlight

Michael:	Well, one of the things that I also remember, Sue, when you and I talked, that I don't know if all of you can see [in the photos of Rauschenberg and Weil's apartment], but there's a basket in back with rolled up paper and that would have been blueprints or drawings that A perfect storage container that you could roll up blueprints and drawings and just leave them there, to keep them in storage. A second thing that we've been considering—and I know Christina and I talked about this, we may not be able to come up with an answer, but, and Jacob if you want to jump in here—is the process from making taking this and making these miniatures.
	Now Sue, I guess the sense is that, at various times you and Bob were interviewed, and gave two different answers about how these were made. So, that's probably an open question then how they were really made. I know it's hard for you, we're talking about things that happened a long time ago. But I was talking with the students, the miniature blueprints are kind of an odd thing. We can understand something that is this big is a work of art and is designed to be exhibited. But I asked the students, were these really just gifts or was it an attempt to make a little portfolio? I don't know if you remember this, but
Susan:	Well, I remember that some group of people wanted us to do this, with negatives and so we back and forth, Bob and I, we discussed what was possible, what was not. And so then we couldn't do their project, which was to make an edition of them or something, because it wasn't legally correct. And so, but we had to have negatives that we could do as a gift to a couple of friends. We could do that just, but not as a commercial.
Michael:	When you say it wasn't legally correct, what do you mean by that?
Susan:	Well, it was a matter of what these people that wanted to sponsor this wanted, and what we were told what we should and shouldn't do.
Peter:	It would have to be a two-step process, right? If you photograph the original, you'd get a negative, but to make the contact print you'd need a transparency or positive transparency.
Susan:	Yeah. Anyway, we couldn't do what we wanted to do and this happened and it went to a few people two people.
Michael:	And that was it? It was a small So, it would have been a kind of transparency?
Christina:	There's also a paper negative process too, so it's possible. I've never tried on a cyanotype, but it's possible it could have been a paper negative.
Michael:	Meaning that you shine the light actually through
Christina:	The silver gelatin print.
Peter:	Possible, but to make a paper negative, and make a translucent or wax paper negatives, is a tricky procedure.

Susan:	Yeah. I don't know the details of that. I really don't. But I do know we were trying to do an edition, small, and we were not able to do that.
Michael:	So that's why they're just a few
Susan:	Two or three.
Michael:	Yeah.
Susan:	I don't have any.
Julia:	Was there something about them being commissioned possibly by Vogue magazine?
Susan:	Not that I remember, no.
Julia:	I'm just going on a note that's in our database that
Helen Hsu:	Rauschenberg wrote that he was in contact with Alexander Lieberman about a possible project. It's unclear whether or not it was this, but it was around the time of the blueprint activity. I think Lieberman may have been responding to the <i>Life</i> Magazine feature, but it's sort of a parallel development.
Peter:	May I ask, is there any chance, is Ruth Hansom still available for comment on what was going on at Vogue and Harpers Bazaar at the time?
Helen:	I'm not aware if that would be a possibility.
Peter:	She might be a source of the [crosstalk 00:28:12] information.
Josh:	Not 1950.
Peter:	I think she was there.
Josh:	I don't think so [crosstalk 00:28:12] '63
Julia:	I think the project didn't come to fruition, but this was the aftermath.
Michael:	And it's clear that the two of you were ambitious because
Susan:	One of us more than the other.
Michael:	But clearly you took efforts to, one or both of you, took efforts to get the <i>Life</i> profile, which was <i>Life</i> was the biggest platform for the media at that time. But then also this date, when I interviewed you, you said that both of you went to go—I think this is remarkable—went to go meet with Edward Steichen at MoMA, which I think my students need to get this kind of a message because I think when you're that age you're a little bit more timid, but you go meet with this master of modern photography.

Susan:	Right? It was a different world.
Antonella:	Yeah, it was, it was, it was a different world [00:29:18]
Susan:	Now if you call up and you'd say, "I'd like an appointment with the director of etching or the director of photography," they'd say, "Forget it!" But then, we knew of Steichen and his work, and we just thought he should see the blueprints and Bob was, of course, much more open to dealing with these things than I was, I mean forget it, but So, we made an appointment and that wasn't hard to do then.
Michael:	And do you remember, did you bring some of the blueprints with you?
Susan:	Yeah, sure. We brought maybe half a dozen blueprints and he was very excited about them. I wrote about them. ¹ And he talked about some other kinds of photo printing that he had tried and we had a good talk, and then he called and said he was putting one of the blueprints into the show at MoMA [<i>Abstraction in Photography</i> , May 2–July 4, 1951]. We were still in art school, you know, really.
Peter:	That's super.
Julia:	How did he come Did you meet him at Black Mountain?
Susan:	What's that?
Julia:	Did you ever meet him at Black Mountain? Didn't he go and
Susan:	Steichen? No, but I liked him very well. He was really a wonderful guy and lively and interesting.
Michael:	It really makes me think, for the folks at the foundation, how remarkable it is you have this work because it's obviously made by Sue and Bob. Then it's shown in that show, and then the miniature of it then appears in the Combine, in <i>Odalisk</i> [1955/58 RRF # 58.001; fig. 21]. So, it's kind of a major touchstone. Do you
Kathy:	Have people looked in the MoMA archives? Is there any new
Lee Ann:	No, I haven't.
Michael:	You mean about this show? I know that we were just able to get that photo because MoMA's now digitizing everything, it's online.
Kathy:	Yeah, but I wonder if there's more than the images of the exhibition.

¹ Perhaps Susan Weil is referring to her unpublished 2019 text, "Once in a Blue Moon." She writes: "Bob wanted to share the cyanotype experience. In the spirit of that time, he contacted Edward Steichen at the Museum of Modern Art. We had an appointment. He was enthusiastic and put the blueprint 'PAT' in a contemporary photography show. That was thrilling. We were still art students."

Lee Ann:	Yeah, that would be a whole exhibition file.
Kathy:	Right.
Lee Ann:	Correspondence and somebody who had to arrange for that, variety and registrar, [crosstalk 00:31:38] framed.
Josh:	I'm curious whether it was framed at all. It doesn't look like it from the installation shot.
Lee Ann:	And maybe not.
Michael:	You would want to look close
Antonella:	Nothing is framed.
Peter:	Yeah, nothing's framed.
Josh:	Yes, so it's probably just Steichen
Antonella:	That's how it was.
Josh:	Bare on the wall. Everything else is probably a lab-made print mounted on Masonite, something like that.
Kathy:	There may be Steichen words about it.
Lee Ann:	He has copious correspondence [crosstalk 00:32:07].
Kathy:	That's accessible.
Lee Ann:	It is.
Josh:	Right.
Lee Ann?:	One thing that also might've been a connection between Rauschenberg and Steichen is that they were both vets.
Susan:	They were both?
Michael:	Veterans.
Lee Ann?:	So, Steichen would be known as Captain Steichen because he was in the Army and Rauschenberg was also [crosstalk 00:32:27].
Susan:	In the Navy.
Lee Ann?:	So, that could have been a reason for them to connect.

Susan:	I think it was because, we said we had these kind of prints and we'd like to show them to him. And they said, "Sure, sure, of course" [00:32:43]
Michael:	I mean, what are
Kathy:	They used to have open
Peter:	Reviews [00:00:32:49].
Kathy:	Yeah, reviews, thank you.
Michael:	Oh really?
Madeleine:	They actually had, at MoMA, open photography submissions until the late seventies. That's how Livingston photographs got in there.
Michael:	When Sue and I first talked and she told me that story about just calling up and having a chat with Edward Steichen.
Kathy:	It was different days.
Michael:	Definitely a different time.
Antonella:	Yeah, photography was in its infancy. It wasn't selling. But, it would be interesting to look a little more into this exhibition, which of course you have all the documentation, because it is extraordinary that you were in this exhibition. A large cyanotype print.
Josh:	Right, there's a lot of black-and-white pictures.
Antonella:	I mean one talks about photography to sculpture at MoMA, in 1971, as something exceptional. But this is I mean everything else is a gelatin silver print there. I mean it's abstract, I can see there is Siskind, I can see Siskind, and [crosstalk 00:33:54] that I don't know. But it's exceptional.
Peter:	How many other cyanotypes were in the collection in 1955?
Antonella:	Exactly!
Peter:	Cyanotype wasn't an artform really.
Lee Ann?:	No, but certainly Steichen would have no problem with that. [crosstalk 00:34:13]
Antonella:	But Steichen even, who is doing, the war of show, that of course is <i>Family of Man</i> [<i>The Family of Man</i> , Museum of Modern Art, New York, Jan 24–May 8, 1955], at this time is working with photography as media, right? Of course, this is abstraction, so it's interesting in aesthetics and [of?] photography, but, I mean good for Steichen! It obviously shows that [crosstalk 00:34:36] very open-minded visual mind.

- Lee Ann?: [crosstalk 00:34:43] and also and the staff, he was the chief. So, there may have been others as well.
- Antonella: Would [John] Szarkowski have done that? In the seventies?
- Susan: The meeting with him was just him, but...
- Michael: The thing that I never thought about, because obviously the installation photo is in black-and-white, but the distinction visually, both in terms of scale and that's one of the big things I always thought about when I was writing about you and Bob, is that you figured out a way to make large-scale photographic works that could compete with the size of abstract paintings. So, just to imagine that show, the scale of all the other works, and then this bright blue really large-scale object in there would have been great. And you can see I think, that's why I think looking more closely at the installation photos will be revealing. It looks like, if Steichen was the one who installed that show, he puts it at the end there and it probably had a real...
- Peter: Place of pride.
- Michael: Prominent kind of visual focus.
- Kathy: I wonder what life scale nudity would have looked like as well.
- Michael: Well, that's one of the things I noticed... Now this is neither here nor there but let me see. I think I brought in one of the photos of this. Yes. So, I don't know if I ever talked to you about this, Sue, after I interviewed you, but then when I wrote this piece, but I... I could never figure out why there were leaves and plants on the nude there because in a cyanotype that's not going to appear. But then I realized it was probably in order for *Life* to censor the nude. So, it covered over...

Fig. 29



Rauschenberg and Weil making a blueprint with a *Life* magazine model, spring 1951 Photo: Wallace Kirkland

Kathy:	Fig leaves!
Michael:	Fig leaves literally. Now I don't know if that was Do you think that would have been a conversation you had with Wallace Kirkland who was the photographer? But there's no reason for those leaves to be there except to cover the nude.
Susan:	Well, it could be, I don't know. But it's funny after this thing of doing this photography for the magazine and then everybody left and then we didn't have any money to have dinner.
Michael:	So, you told me you ate cereal for dinner that night? No?
Helen:	[crosstalk] Oh, I was just saying too early for Alpha-Bits. [00:37:36]
Michael:	Too early. Sue, do you, since we're talking about this, do youto me as someone who likes attention—we all like attention—and <i>Life</i> magazine was so big then, do you remember when the piece came out and either friends or your family seeing the <i>Life</i> profile? Was that a big deal? Do you remember?
Susan:	It was a big deal to me, but I don't know about the friends.
Michael:	I imagine that you went and bought an issue, or they sent an issue, and it would have been a big impact to be profiled like that.
Susan:	Sure, it was amazing. It was great and exciting and all that.
Kathy:	When was Jackson Pollock? ["Jackson Pollock," Life (August 8, 1949): pp. 42-43]
Josh:	I was thinking the same thing.
Michael:	Well, this was the spring of '51 so that would've been, yeah a year. Now the big difference is that the Pollock profile was in the general section and this was in "Speaking of Pictures" and that's a whole other aspect of it because "Speaking"
Antonella:	[inaudible 00:38:50] these were prints.
Michael:	Yeah, "Speaking of Pictures" was all about profiling photography in <i>Life</i> . It was an argument for <i>Life</i> 's focus on photography.
Antonella:	It's not art.
Michael:	Hmm?
Antonella:	It's not
Michael:	It's not art. It's photography. So, Weegee, there were profiles on Weegee [crosstalk 00:39:11]

- Antonella: Yeah, exactly, there was [inaudible 00:39:11]
- Kathy: So, last night there was a photo forum at MoMA based on Walead Beshty's [00:39:19] new book I recommend to this class because it's kind of a history of that apparatus and context in which photographs exist. A big part of the conversation was the free will, or lack there-of, of people like Walker Evans and Gordon Parks and the dominance of the editor in terms of contextualizing his work. So... that is why [00:39:52] I'm interested in these too, because that would have been really a very strong directive from the editor to the artists and we don't think about that as much as I think is important. What were the editors like? Do you remember at all?
- Susan: No, I didn't really have much contact with the *Life* magazine people, except for the photographer, but...
- Michael: I imagine that was probably a directive that was transmitted through the photographer who was sent out to take these photos.
- Julia: Except, I think they published the nude, nude. The actual one that was reproduced in *Life* magazine.
- Michael: She's in a position where she's not, she's sort of curled around. Right? So, I think she's not particularly exposed.
- Speaker ?: She's pretty nude...
- Antonella: [crosstalk 00:40:54]. Why would you cover it up with leaves, if you want to cover it you can just... strange no? These leaves? [00:41:00]
- Thomas Roach: I think it's interesting. I don't think it's necessarily a fig leaf. I think it's just ornamentation or documentation specifically for this photograph. What if that was staged, specifically for the photograph itself and not a part of [crosstalk 00:41:16]... another interesting layer, in all this.
- Kathy: You mean, paradise lost?
- Michael: And one of the points when I was researching, writing about this stuff was when I realized that some of the photos were obviously staged with regular incandescent bulbs. So, they're not actually always exposing stuff. But why don't we go to this? So as we're wrapping up, first of all I want, if anyone has any either a burning question or observation to please add, but for those of you who know more about the technique, I'm assuming that there may very well have been moments in which the fabric was exposed and then the figure exposed on top, right? That would make sense. For instance, that would make sense here [fig. 22], even. Yeah?
- Josh: Absolutely [crosstalk 00:42:06].

- Michael: And here you can really see, it looks like the bulb was held pretty... For a long time, so you get that kind of burn [00:42:14] yeah. Yeah.
- Helen: What I suspect in this case is that the skirt is used for registration rather than for the effect of the fabric because... it looks intentional, that he's going for the pelvic area that he needed the skirt to register where is that.
- Michael: Where it would go, right.
- Helen: Because... or at least in that photo it doesn't look like you have an effect of fabric.
- Michael: Well, but it does look that there is a kind of slight disconnect or off registration between the body and the fabric. I have to say, I've told the students not to do this, which is to get into the kind of reverie of interpretation around Rauschenberg, which you and I both know is so seductive. But I look at this and then think about the... And as my students who are working on the *Hoarfrosts* know, Rauschenberg's great interest in fabrics and textiles and fabric effects and the slight off registration of fabric and body here to me, could be significant in that respect. But that's for other people to decide.
- Susan: But also, you know the blueprint of me, with the petticoat, holding the cane?

Fig. 30



Robert Rauschenberg and Susan Weil Sue, ca. 1950 Cyanotype 69 3/4 x 41 5/8 inches (177.2 x 105.7 cm) RRF # 49.E003

Michael: The cane, yeah.

Susan:	That's another example of that
Michael:	Another example of what?
Susan:	The fabric being used as an element of a design piece.
Josh:	Yeah. Susan, I'm wondering, do you remember making a lot of prints that didn't work and then destroying them?
Susan:	Well, we tried things that weren't to our pleasure, that would have gone in the garbage, yes.
Julia:	Then there are also miniature blueprints for which we don't have large-scale examples.
Josh:	You mean? You mean like sort of almost like-
Julia:	[crosstalk 00:44:13] like some of the abstract ones, for example. We don't know of extant large-scale examples, so
Michael:	And these are all images from the Kirkland archives of blueprints that are no longer extant. There's one. This is the one of the ones that's being made in the <i>Life</i> photographs of a figure in a hammock actually. And then so there are various ones. These appear at various points in the Kirkland archives, but they're no longer extant, including one of a woman [who is like] almost Snow White, with a little bird on her or talking to the bird. It's quite cute actually.
Speaker ?:	What about the one with the squares, what is that? Does that have something
Michael:	Yeah, it's sort of abstract.
Julia:	Well that it's a little bit like the one [crosstalk].
Josh:	So, I was looking at the MoMA page, speaking of accessibility. Thank you MoMA. And on the checklist [for <i>Abstraction in Photography</i>], the piece—I don't know if this is significant or not—but the piece is listed as a blueprint photogram for mural decoration.
Michael:	And I've always wondered if that has any connection to the fact that this is looks like it was a screen.
Peter:	Right, a triptych.
Michael:	Or a triptych, but it looks like almost a folding screen.
Josh:	Yeah, yeah, yeah, absolutely. [crosstalk 00:45:47] And there was a piece of glass over the piece, but not covering the entire thing. I think that there's a big piece of glass and the edges are sticking out behind the glass.

Antonella:	WHY?
Josh:	I don't know Design [00:46:03]
Michael:	I was just thinking
Michael:	You shouldn't worry about not remembering everything because that gives us all something to do.
Josh:	Exactly.
Michael:	That keeps me in business. So
Susan:	Good.
Julia:	This is Pearman right? This particular person
Michael:	So this is called <i>Pat</i> . So we think this was Pat Pearman who was the model for this.
Julia:	I'm just wondering if you'd remember her coming and doing it with you.
Susan:	Vaguely.
Michael:	Was she a dancer?
Susan:	No, she was a friend of Bob's from before I knew him. They were in Kansas City when he was in art school
Michael:	at the [Kansas City] Art Institute.
Susan:	but I didn't know her.
Michael:	So, we have a few minutes left. So we came here today, we got a lot done, but this will be our last opportunity in this crucible of information and understanding about this stuff. So if anyone has something they've been holding on or, Dana?
Dana:	So Sue, we've already touched upon Man Ray's cameras, photography and other examples—the cameras, photography with Anna Atkins. I would love to hear from you, how you were considering those other examples of camera-less photography when you and Bob were creating something that is the same, but of course very different.
Susan:	Well, of course it all interested me a great deal. And, of course, we did go to Black Mountain, which was a Bauhaus school and some camera-less photography happened there. But, I had that connection to blueprint even when I was a little girl. So
Kathy:	How so?

Susan:	For one thing my grandmother. Her father was Dankmar Adler, the architect, Adler & Sullivan [Chicago]. And my grandmother, as a little girl, had a little photograph on glass and she went to her father's office and said, could she make a blueprint picture [fig. 14]. And I have that and I love it, and that's in the 1800's, so
Peter:	Can I just say, I was reading the Mike Ware ["A Blueprint for Conserving Cyanotypes," <i>Topics in Photographic Preservation</i> 10 (2003): pp. 2-18] and that he said, blueprints went through three phases. Initially it was a scientific thing that Herschel and his circle worked out the chemistry of it and so on. And then it was immediately denigrated and not used for artistic purposes through the 19th century, until the commercial blueprint process for architects came.
	I think the first commercial papers were in the 1880s and that took off. Obviously blueprints for architectural uses went on for decades. He said, the third phase was an artistic rediscovery from the 1970s. So, your work clearly, predates that by decades. I want to ask you, was there any follow up? Were others realizing, "Hey, this is some pretty interesting stuff," and who else was making blueprints in the fifties and sixties until the seventies and eighties when?
Susan:	Yeah. I mean
Peter:	Alternative processes came to be, right?
Michael:	Great question.
Peter:	Right? These are prototypes well in advance.
Susan:	Yeah, it was not common, when we did it. But now it is. So, there's some amazing work happening. Yeah.
Michael:	It makes me wonder about —again—the MoMA show [<i>Abstraction in Photography</i>] and who might've seen the show in '51, and what impact it could have. That hasn't been traced yet.
Madeleine:	Or even if there were any reviews.
Michael:	Right.
Madeleine:	You know understanding of what was going on here? What were their reactions?
Antonella:	Yeah. I mean it's so into who one tends to obviously compartmentalize, right? In the fifties the mediaYou arrive with a blueprint in the photo shop. It's quite exceptional in that time. And this is what Peter was saying. It's so interesting when it comes up in the seventies and it's really important. It's also coincides with printing on quilts and it's really gender based. That becomes a little story. It's exceptional in '51in the field.

Susan: I think so too.

Helen:	[00:51:03] Something we've always wanted to ask you for a long time is regarding the titles for the miniature blueprints. What was the process of arriving at the titles?
Susan:	Well, I did a lot of titles. But of course Bob did titles too. We both were word people, so that's the way it happened. In my life, everyday, I make a poem with a visual component, for forty years or more. So, I'm a word person.
Helen:	Was that collaborative as well or did you guys kind of trade off? Was one of the titles yours, another his? Or did you really come at it together?
Susan:	Well, mostly, somebody would suggest the title and that would be the title. It didn't have to be me and it didn't have to be Bob. He was very good at titles, as you know, from when I wasn't living in the same house as he was.
Peter:	Were any of these ever sold commercially to collectors or institutions?
Susan:	Yes, I think Bob sold quite a lot.
Julia:	Sold the blueprints? Yeah. There's some in museums. There's some in private collections. They're not a vast number of them that exist. I'm just wondering how do we name the blueprints. Should that just be considered the title, or <i>Pat</i> , for the work behind?
Michael:	So, Sue, this says, "Pat" down here. So, I guess Julia is asking, should that be considered the title of that?
Susan:	l have no idea.
Michael:	I always thought, getting back to Helen's question, a title like <i>Light Born In Darkness</i> sounds more like Susan Weil. That sounds much more like Susan Weil than Robert Rauschenberg.
Susan:	But he was pretty good at titles too.
Michael:	His titles are a little bit more
Helen:	[inaudible]
Josh:	Can I ask about this? I guess the people at the foundation. I'm looking at the checklist and looking at the medium line for the smaller prints, black-and-white photograph of full-scale, original blueprint exposed on blueprint paper.
Julia:	I think that is not right, necessarily. [00:54:02]. That's a process. That's not a
Gina Guy:	That's what we ended up with.

Julia:	So for the conservators, let's just start with the large ones. What would you say is the correct medium line for that? Would you say cyanotype?
Michael:	Uh, the big one.
Susan:	Yeah, it's a cyanotype. [00:54:36]
Peter:	Unique cyanotype.
Helen	And the little ones are cyanotypes, too?
Peter:	Right.
Julia:	So that really should be the minimum line.
Peter:	Yeah, right.
Michael:	Do you ever have a non-unique cyanotype?
Josh:	Yeah.
Peter:	Sure you can. Yeah.
Helen:	The little ones are non-unique.
Josh:	You can use a negative to make a cyanotype.
Susan:	Yeah.
Michael:	Oh, right. Oh, I see. [00:55:02] Because there are one shot there
Josh:	Yeah.
Helen:	Yeah, potentially. Your grandmother's cyanotype is a non-unique, potentially. The process.
Michael:	Right.
Julia:	I just have one question, and I think one of the students was talking about this, there's two There's Sue's description of how the miniature blueprints were made from a negative and then there's the Walter Hopps description. [00:55:36] Was it Walter Hopps or was it Rauschenberg? Because if it was Walter Hopps, I would err on the side of Sue's description.
Peter:	What was his description? It was that it was a print?
Julia:	It was done with a contact print.

Peter:	But through a positive print. Not a translucent
Julia:	Well, who
Peter:	It seemed confusing. What's the alternative?
Susan:	It's a negative.
Jacob:	It was Walter Hopps who said that. And it was an interview by Walter Hopps, which was transcribed by a Susan Davidson, and I think those are in your archives now [Susan Davidson papers, Robert Rauschenberg Foundation Archives, New York]. It was pretty short and [00:56:13].
Erica:	I have it. I can read it. It will take a minute. Sorry, go ahead.
Michael:	No, that's okay. While we're waiting, we'll take a few final questions and then I just want to leave it with, does anyone have any suggestions for future research? Like specific. We'll wait for Erica to read that, if you're there, but then
Erica:	I'm getting there. It was from 1991, Rauschenberg said, "I photographed the original in black-and-white and printed it on blueprint paper."
Michael:	Well, what does that mean? [inaudible].
Josh:	That could mean a lot of things.
Susan:	He printed a negative of it.
Emily:	That leaves room for transparency.
Kathy:	No, it doesn't say negative.
Erica:	[crosstalk 00:57:24] It says "photographed the original in black-and-white and printed it on blueprint paper."
Susan:	Printed the negative on blueprint paper.
Erica:	Yeah, photographed the original.
Julia:	That would be the large-scale one.
Kristen:	Would it be possible to put a UV light in an enlarger and project [00:57:33] [crosstalk 00:58:23].
Christina:	The exposure would be way too long. I've had students who have wanted to do that. It is not practical. [crosstalk] I've done a bunch of research and I couldn't find anyone who had done it.

- Josh: Can you imagine it being a positive print from a negative on a very, very thin paper? [inaudible]...make it thin, make it translucent. I think it would be easier to make it from a transparency.
- Kathy:One of the things that might have been useful for you all to see is Walead Beshty's show
at [Friedrich] Petzel [Gallery, New York], which is floor to ceiling blueprint images. It's
quite remarkable. You saw it, yes, would it be useful? [Note: the exhibition was Abstract
of A Partial Disassembling of an Invention Without a Future: Helter-Skelter and Random
Notes in Which the Pulleys and Cogwheels Are Lying Around at Random All Over the
Workbench, October 24 December 14, 2019]
- Julia: Oh, I think it would be really interesting. Anyone who would be interested in blueprints would be interested.
- Kathy: My feeling would be, would it be interesting to get him to talk to the class?
- Michael: Okay. Walead Beshty. Christina.
- Christina: I just wanted to touch on something I brought up earlier about the place of photography in art at that time of the 1951 Steichen show when this would have been on view. This historical struggle for photography to be validated as an art form and, that at a time when the Ab Ex movement was very big. So to have an abstract photography show would have been trying to place photography in line and have it in that level of importance as unique artworks—in the same way that a Pollock would be a unique object.

And that, in the 2010 Ab Ex New York show [*Abstract Expressionist New York*, Museum of Modern Art, New York, Oct 3, 2010–Apr 25, 2011] they did have a little room of photographs that were the Ab Ex photographers of that time, that were put in a juxtaposition with the painters. So, therefore, this work could be part of that justification or validation of photography as an art form.

- Kathy: Just as Sue describes it, as painting with light.
- Peter: [crosstalk 00:59:49] I want to say too, I think there's an issue [that] photography wasn't elevated to an artform in part because of the size limitations. These kind of broke through a barrier. These were substantial objects that could take... stay on the same wall as an abstract painting or other forms of art. I think this dimensional thing was important and...
- Antonella: Oh, I think there's some research there, you were asking for research.
- Michael: So, you say there's research where? Into the Steichen show in 1951 [*Abstraction in Photography*]?
- Antonella: Yes. And positioning. You're looking at that, the installation shot. Asking a few more questions about it. I'm even thinking— and this is crazy— Steichen comes from

Pictorialism. He knows bichromate. He knows all these automatic processes in the teens, long time before... I wonder if he was also curious about this process that was so different from the gelatin silver print [01:00:51]. This isn't your place, but I wonder why was he so open-minded in a moment in which really you are not seeing this kind of abstraction, but also these kind of [inaudible]...?

- Lee Ann or Nora?: Well he was familiar with cyanotypes [01:01:09]. He had a lot of works in our collection. And the catch is that with analytical equipment we can detect Prussian blue. But we don't know if it was Prussian blue, applied–
- Peter: As a toning bath.
- Antonella: He was fascinated with painting on prints.
- Lee Ann or Nora?: -or whether there are cyanotypes under some of his gelatin prints.
- Michael: Really?
- Lee Ann or Nora?: Yeah, totally. He was messing around with all kinds of...
- Peter: Multiple printing.
- Lee Ann or Nora?: Which goes to what Susan was saying a minute ago. When you met with Steichen he said, "Oh yes [inaudible]..."
- Susan: Yeah, and I think that's one reason it was no problem to have an appointment to see him because he had tried a lot of these interesting connections sideways to photography.
- Michael: By the way, just, in terms of further research or just not to wrap things up, I'll leave things open. One of the things I'm thinking about, which we really haven't touched upon, but it is huge here... I've spent much of my career focusing on the interface between art and consumer and commercial culture. We really haven't. All of you are talking about fine art and fine art photography.

But what to me is interesting about this process is that both for you and Bob and then Bob and Jasper, there were commercial implications and particularly at that stage in all your careers when you needed money to live. So what really strikes me is that's functioning in 1951 to be on the wall at MoMA, at a scale of abstract painting and working in a room with major works by major fine art photographers, and it's being used as a way to make window displays to make some money to live from Gene Moore. It's very interesting.

Antonella: Why did you say, Josh, you had a title [for *Female Figure*]? Didn't you say something decorative?

Josh:	No, it's just something about a photo for a mural. "Study for a mural" or something like that.
Antonella:	So, was it because you have [inaudible]?
Josh:	No right.
Michael:	So that is—I think Madeleine pointed this out in her talk—setting out the timeline. These two things occur within a month of each other. <i>Life</i> magazine—and talking about the impact of photography in the middle of the twentieth century—you have this show at MoMA run by Steichen and then the <i>Life</i> magazine spread—"Speaking of Pictures," it's
Kathy:	It's related.
Michael:	Yeah, absolutely.
Josh:	Yeah. And do we know when the next art museum display of one of your collaborations happens in the chronology. I'm assuming this is the first one, right?
Madeleine:	I remember in making this timeline that I presented here, I looked through everyone else's timelines and I remember a 1970 something.
Erica:	[<i>Female Figure</i>] was [not shown again until] 1970, so it had about twenty years, but also—not to further complicate the title—but the title did change. It was <i>Nude Blueprint</i> and then later became <i>Female Figure</i> , sometime after the seventies, I'm not entirely sure when. So, it hasn't really had a consistent title ever.
Michael:	I think the interesting thing would be to look and see if any of the blueprints were in Rauschenberg's Jewish museum show, which is '63 [<i>Robert Rauschenberg</i> , Jewish Museum, New York, March 31–May 12, 1963; according to RRF records no blueprints were included].
Helen:	'63 and to the best of my knowledge, there were no blueprints.
Michael:	There were not.
Emily:	I looked at this, at some of the documentation of that show. I didn't see anything that necessarily
Kathy:	Were there any photographs?
Helen:	There are tons of installation views.
Kathy:	No, no [Rauschenberg fine art] photographs.
Helen:	Oh, no.
Michael:	So then there's a whole other aspect to this, which is the different ways in which these artists' careers are framed, which gets back to something I was thinking about when all of you were talking about this. So, we're proposing that you and Bob contributed something major to the history of photography. And yet I would never think of Susan Weil or Robert Rauschenberg as photographers, like we think of someone like Steichen. Although maybe as we look to the future, this is something that Antonella Pelizzari is going to complicate.
------------	---
Antonella:	I think it was this problem of boundaries and compartments. I mean obviously it happened, it's there! And it gives us huge pleasure.
Michael:	Yeah.
Kathy:	I think quite the reverse. I mean, I was speaking to a very prominent photography gallerist the other day and he said to me, "Bob didn't change the history of photography, he changed the history of art." And I think that, let's say, it's a prejudice.
Michael:	Although my proposition and the point of my whole class is that he was a photographer who became an artist. Like the photographic paradigm suffuses his work, and we can see this from the very beginning when Sue, when you're
Kathy:	And that was his point actually, but it came out of a negative.
Michael:	Right, Yeah. So, any final burning Emily?
Emily:	Now a burning question about the miniatures, as we discuss how they were made. We were talking earlier and if it was a negative, you would have had to have a huge camera and a huge negative to print that, to make that on blueprint paper with a negative. And so, I'm wondering, would you have had access to an 8 x 10 camera?
Susan:	I think the people that originally wanted it to make an edition—the small ones— presented concept that we were told not to do it. So, they probably photographed the blueprints and then
Michael:	Maybe gave you transparencies
Susan:	Maybe we just were allowed to make three of each, or something for friends.
Emily:	That's interesting. So, it is pretty open. There's a lot of possibilities there.
Julia:	But also, if it were a regular sized negative, could they put it in an enlarger and then create the blueprint through the
Michael:	What do our technical experts think?
Peter:	[01:08:04] You could make an enlarged negative.

Christina:	As far as I've done with my research, it doesn't work to put a UV bulb in the enlarger. The exposure time would be so long, because when it goes through the lens, it diffuses and then disperses the light. So, the photo time would be so enormous that it would be really inefficient.
Peter:	Right.
Michael:	Wouldn't you probably melt the negative? [01:08:24] No, I'm serious.
Christina:	That's a question. Yeah, because the UV light does get hot. So, I haven't found anyone who does that.
Lee Ann or Nora	a?: One of the keys to one avenue to explore more with the miniatures is when Kodalith was adopted [inaudible 01:08:43]
Michael:	When what?
Speaker ?:	Kodalith.
Michael:	Kodalith.
Speaker ?:	So Kodalith is a graphic arts transparency film that's used a lot in signage and architectural parts So, if you can establish when that is a common tool, that might explain how that format was achieved. [inaudible 01:09:14] That contrast.
Emily:	Yes, and I think that's another indicator that it could be a transparency because I would imagine a transparency has less tonal range than a piece of paper and so it would allow for this more high contrast.
Michael:	High contrast.
Peter:	The Kodalith was high contrast.
Michael:	To the conservators, would there be any use for the foundation in doing any studies of the papers—between the large and the small ones and the study ones. Is there any way to determine the relationship between these different papers and would that be potentially revealing?
Nora:	Well, I think one thing, just to make sure, I mean, it looks like a cyanotype, but I would suggest you just 100% verify that it's not ink on paper. It doesn't look like it, but just be sure. And then the paper.
Lee Ann:	Yeah, you can do that with XRF, you can look for iron.
Nora:	Yeah. [inaudible 01:10:24].

Helen:	Michael can you circle back to the slide with all the pictures. And I want to circle back to a question that Julia posed—that not all of these are extant in their full-size. Do you recollect, Sue, at one point if these all did exist in full size? Do you possibly have any recollection of things actually being destroyed or going away or just disappearing over circumstances of time?
Susan:	No, the only one that I actually own, was this one of me, with the cane. The rest of them Bob stored a lot with an artist friend, because we didn't have storage space and we got back some of those, but he had all the rest of them. I just had one [01:11:23].
Kathy:	Do you remember the friend's name?
Julia:	It wasn't Sari Dienes was it?
Susan:	I think so.
Helen:	Is your brother in one of these?
Michael:	I thought the brother was the first. Is your brother in one of these? Or was he
Susan:	No, I don't have that blueprint anymore, but he was a little boy. Maybe six or seven.
Michael:	You've said in interviews, that was one of the first ones you did with Bob.
Susan:	With Bob, yeah.
Michael:	Laid down and you
Kathy:	Gina knows that that person had a fire.
Gina:	Bob had a lot of stuff stored in her apartment that was destroyed.
Emily:	What year was the fire?
Gina:	I'm not sure. I think I have it in the database. [The fire at Sari Dienes's was in 1957.]
Michael:	Okay, I want to thank all of you for coming and sharing this incredible insight into these works. This is incredible. Thank you! And Susan, thank you for coming here today, it's been a
Susan:	I'm delighted.
Michael:	Thank you.