

**Fields of the Future: Unraveling the Loom**  
**A Podcast by Bard Graduate Center**  
**S2E2: Elena Phipps—Textile, Color, Culture**

**Introduction:** This is Fields of the Future, an interview series by Bard Graduate Center. This season highlights the work of scholars, artists, and educators working with Indigenous textiles and textile history of the Southwestern United States and Mexico. In this episode Juliana Fagua-Arias speaks with Elena Phipps about cochineal, luminescence, and the relationship between textiles, color, and culture.

**Juliana Fagua-Arias:** Hi, I'm Juliana Fagua Arias, I'm a designer, art historian and curator. I'm currently a guest in New York City, or Lenapehoking the land of the Lenni-Lenape, and I'm thrilled to be talking today to Elena Phipps, independent textile scholar and curator and former senior textile conservator of The Metropolitan Museum of Art, as well as former president of the Textile Society of America. Hi, Elena, thank you for joining us.

**Elena Phipps:** Hi, Juliana. Thank you for inviting me.

**J F-A:** So, um, I wanted to start by asking, in your research the relationship between textile, color and culture comes up often. So, could you tell us a little bit more about how these three ideas are connected?

**EP:** It's a good question. Um, I like to use the phrase textile, color, culture, because it has a little bit of ambiguity, as is it the textile that is the culture? Is it the color that is the culture? And to me, it's a combination of all of that. And so, because my interest in materials and materiality, the meaning of the materials, um, I find when discussing the subject of color, especially in relation to textiles, it's so interconnected with knowledge systems and aesthetic systems and cultural systems of all sorts. So, I find that it's a kind of convergence of ideas. Um, textiles in their own right, have, you know, incredible depth to, um, what they're made of, how they're made, their history and various cultures. And that, um, some of that is also spurred by the understanding of the science and aesthetics of color, um, because it requires and engages, uh, new kinds of techniques for weaving and things like that. So, it's a very interconnected set of ideas to me

**J F-A:** So, a follow up question to that, uh, would be what do you think it is about textiles that makes them so essential to a culture?

**EP:** Well, it's true on many different levels, I mean from the very basic concept of textiles as a protective, um, element to protect from the weather to engage in an enclosed spaces to be part of, uh, living systems that people develop from very, very ancient, um, cultures to the present day. So, textiles are the first thing that's wrapped on the body, that's the first thing that is used to contain foodstuffs, it is an architectural, uh, component, and, you know, different cultures use them and develop them differently depending on the, um, the materials and techniques that they, um, start to develop.

So, it's also textiles are very much knowledge systems that get incorporated, um, in the physicality of making textiles. Uh, so much of weaving and even things that are done before weaving has developed with making baskets or using plant fibers to tie them to make structures. Um, the- the organization of intellectual thought that goes into the structure of a textile, and also the idea of looms and of involving repeating sequences of lifting and lowering threads to create a fabric, it happens in many different ways, it happens with different kinds of fibers differently, it happens with different kinds of, requirements of a culture, whether they need, um, things to keep them warm, or to keep them cool, or to, express religious ideas or- or issues of status and power. So, there's so many ways that textiles develop, and so there are some things which unify cultures, but they're also, uh, different cultures develop in different ways, depending on the entire, uh, ecosystems of, um, of creative work.

**J F-A:** : This is a very interesting question to me, because I have a special place in my heart for cochineal, and you've written and taught, uh, extensively on cochineal, you have consulted on exhibitions about cochineal. I'm curious, what drew you to this subject?

**EP:** For many, many years, um, in working at the Metropolitan Museum, I had, um, the responsibility to work on a project which involved the museum's entire textile collection, it was in the building of the Antonio Ratti Center in the 1980s and early '90s, that, I had the privilege of being responsible for much of the design and the process of bringing that to fruition. In that process, literally every textile went through a series of a process of examination, in order to prepare and design the facility, and to prepare and design the storage systems and to think about which things go with other things. That gave me this incredible overview of the museum's, um, 35,000 textiles. At the same time, I had always been working with issues about color and dye analysis and doing a lot of dyeing myself, and I had been very much involved with studies of ancient Peruvian textiles as well as the transition between the ancient cultures of Peru and the coming of the Spanish in the 16th century. The item that the Spanish really admired as much as the gold and silver was the red dye stuff, cochineal that was native to the region.

Somehow, for me, the story of this global trade and the beginning of global trade, very much spurred by this rich history of the use of this red dye stuff in the Americas, was very interesting to me. And that kind of layered on top of the Metropolitan Museum's collection. I decided that I wanted to try to do a project where we could trace the history of these red colorants and especially cochineal, because it was the contribution of the Americas to this global art history. In the Metropolitan Museum, which- which focus, uh, less on the Americas and the art of the Americas, although certainly there's a wonderful, um, department that has that art, but I felt that it would, uh, give light to the contribution of Native American peoples to this bigger global issue.

By tracing this history, and there's a lot of scholarship in the field, I certainly it's not my own, completely my own idea, but being able to have access to the collection on the museum and to work with the scientific team that was able to physically do the analysis of the fibers that I

would select from different places, different parts of the collection, uh, looking at some of the earliest occurrence of red colors, and whether what they in examining what they were actually made of, which plants or animal sources did they come from. So, it was really a team effort to do this scientific work, which made the study of the color, not just a historical study, but a technical study, and something that was really grounded in, uh, identifying the differences between different insect red dyes, between plant reds and insect reds. So, you know, it was a very, amazing opportunity that was a convergence of 30 years of working with the collection and, um, engaging in processes of dyeing and dye analysis over many, many years.

**J F-A:** What do you think was the biggest change in terms of how cochineal was perceived before the arrival of the Spanish in the Americas, and then how it changed after the arrival?

**EP:** There's a kind of interesting story in the, in the use of cochineal, because actually, in, uh, South America, especially Peru and- and Northern Chile, where we have really ancient textiles that have been preserved in burials, in the dry desert regions, especially, we find that the earliest red colors were actually coming from the plant reds, from the roots of certain small bushes, the relbunium and- and that, only at a certain point, do we start to find the red colors being made from cochineal.

Once we find that, around the third century AD, something like that, then all of a sudden, every red is cochineal, there's very little plant reds found, except in particular regions, so there's this big change to the brilliant red color that one gets from cochineal insect reds, and we see it oh, you know, every culture, subsequent culture uses it. So, it really takes dominance. Um, in Mexico, which also has a whole long history of the use of cochineal, they have a very different story in Mexico because, um, cochineal generally is, um, in the Andes is used on animal hairs, it's died best when using in conjunction with animal hair, as opposed to say, cotton or- or Henequen or- or other- other, uh, plant fibers.

In Mexico, they don't have the llamas and alpacas and vicuñas and all these beautiful, um, hairs to be dyed. So, there's a much smaller, um, use of the dyeing of cochineal. And rather it's used more as a painting pigment in other media. So, it also is very important in the early Mexican, uh, cultures, the Aztec and- and earlier and even probably the Maya, um, used the cochineal in some degree, but, um, the, because of the materials that it was being used on, it has a different history, .

**J F-A:** And there's this particular aspect of cochineal use in the North American Southwest, which is they didn't dye with it, but they unraveled, trade cloth. Because I have always been curious about why that was, and I haven't found an answer.

**EP:** Well, again, it's partly the history, you know, it was, there were no sheep in the Americas until the Spanish brought them to the new world. And once the sheep started to be a source of fibers for spinners and weavers, then the cochineal could easily become part of that tradition. But in, especially in the Southwest, and, um, where the tradition of spinning sheep wool began

early, and with the introduction of sheep, but it was the dyeing with cochineal, that didn't seem to be as much a part of the tradition.

So when, um, so much of the trade in this, again, in this global of trade, the Spanish and Portuguese that were, um, trading with Asia and India and, uh, Indonesia, and, you know, when, in these whole global developments in the 17th and 18th centuries, um, one of the things that they traded was, um, woolen fabric dyed with cochineal. So, that red trade cloth was very much part of the, um, bartering system and the, um, trade interactions, not just in the Southwest, but throughout the global trade networks.

So, the creativity of the weavers to, uh, either unravel the fabric to use the yarn, sometimes the yarns were respun, sometimes they would be used as is, some cultures actually learn to extract the dye itself from the fabric and reuse it, and- and they did that in- in Europe as well. Um, in fact, some interesting use of cochineal in Europe was found in paintings where the use of the cochineal colorant as a pigment, as a painting pigment. Um, some scientists have been studying the- the surfaces of these paintings and find, uh, bits of wool fiber showing that the- the color itself was extracted from the weaving, and then turned into a painting pigment. So, there's, you know, every culture either, you know, there's this creative process of, um, people love color, and so those who are not the dyers find other ways to incorporate dyed material into their work. So, it's an integrated history.

**J F-A:** : Was it the, uh, appearance of synthetic dyes that made the use of natural like cochineal dye... 'cause I know some weavers still use it, but it's maybe not as big of a trade item as before? I don't know.

**EP:** Certainly the impact of synthetic dyes, again, everywhere, you know, had a huge, um, influence of colors that could be used, of processes. There are different periods of history where there were, uh, people who wanted to return to the use of natural dyes, either for the aesthetic or for the ecological reasons. So, there was a kind of, there have been periods of revival of the use of cochineal. And nowadays, people, there's a big interest in natural dyes. And so, I think a lot of home dyers and artists are- are trying to turn to cochineal. And cochineal was always so effective as a dye because it has so much, uh, dye stuff in, you know, one little insect and so, you know, it's a very effective dye. It's a very efficacious dye, there's a, there's a lot of colorant. And it's relatively simple to use as a dye stuff, unlike indigo that needs, uh, a whole transformation, uh, chemical transformation in order for it to be a viable dye. Cochineal, basically you put in water, and you get this beautiful crimson color and so, uh, it's- its ease of use and it's, and the quantity is what propelled it even in the 16th century to be so sought after.

So today, you know, there is a revival in some ways, although it also has other functions and it has always been part of the food, as a colorant for food, both in traditional societies and in other, you know, industrial societies as well. In the United States, it's the only natural product allowed to be used as a food colorant. And it also is a very much part of the cosmetic industry and drug industry where, again, as a colorant, that's going to be on the skin or consumed. In

Peru, for example, the trade of cochineal, which is very, still very, uh, active, um, but the industry of cochineal production is- is mostly used in industry as opposed to natural dyes.

**J F-A:** And so, your most recent research is focused on the connections between color and luminescence and this idea of brilliance and sheen. So, if you could unpack for us what exactly does luminescence mean in relation to textiles, and maybe also why it was important for pre-contact Indigenous cultures?

**EP:** There are so many cultures that really understand the innate qualities of materials and that focus on the selection of materials that are used, whether it's silk, from the silk cocoon or- or vicuña wool from the animals in the highlands of South America, um, there is a selection process that weavers within certain cultures go through in order, um, to find the best and finest materials possible. What has always interested me is this relationship between cultures and materials and the significance of materials, um, things that- that have this, um, meaning that those of us outside the culture don't always understand, um, and are not always sensitized to, but I think if you look closely at very plain textiles, um, plain meaning things without lots of designs, you know, so many people look for the design and they want to interpret designs or- or the designs are what makes, um, a textile important, but other cultures, they really value, um, the- the quality of materials and the idea of the- the- the touch, how a textile feels.

I mean, in our culture, as well, we go for soft things and things, you know, next to your skin that's going to feel good. Um, but, so, what I find very interesting is how, especially in the Andes, which is where I've been writing about this subject, um, and people that are weaving, uh, certain kind of very dense fabrics, um, in the warp of the threads that are, the first threads on the loom, and they make these various, uh, densely packed, fine, uh, warp-faced fabrics, uh, with no patterns, but they have this creative process of making something shiny, by doing different kind of what I would call weavers tricks.

You know, um, taking a yarn and twisting it with a slightly different color or maybe very contrasting colors, you know, red and white, but sometimes it's just brown and blue, and if you have a brown and blue thread, that's woven in a group of brown and blue threads, all of a sudden you get a textile that isn't just brown or blue, it's sparkles with color and- and so it's that kind of, um, variegated color that can make a textile seem, uh, alive. And- and in many cultures, there is a, you know, textiles are- are a kind of life form and there are ideas prescribe to it, in the edges of the cloth and the- the significance of the, um, the- the patterns and designs, of course, but also in the way that it's made and in the end, you still have a way of weaving without cutting the cloth so that it's complete and a unit in itself.

So with this kind of shimmering color, sometimes it's in the way the yarns are twisted, sometimes it's the colors that are twisted together, sometimes it's a single color in one direction and another color in- in another direction, that when the cloth is folded, or the person wearing it is- is in the sunlight, the sunlight hits a certain angle of it, and it, and it has this shimmering, glimmering look and I think it's- it's, uh, a really, um, it's a beautiful effect, but I think it's- it's couched in a deeper cultural history. And I think with looking at these different ways in which weavers do this, I am trying to explore the significance of it on a deeper level. For example, one

of the ways in which these shiny textiles can be made in the highlands of Peru and Bolivia, is by juxtaposing a yarn twisted to the right next to a yarn twisted to the left and as subtle as that, the light the way it hits the twist, gives a certain, uh, shimmering effect. Um, and it's, uh, so we see it now, it's still used a bit, but certainly in the 19th, 18th, 17th centuries, we see it a lot. But we also know there's a history in the Andes from, we know from documents from the colonial period, uh, that yarns twisted in one direction, to the left, were part of ritual interactions, they were part of ceremonies, and where healers and shamans and people that are dealing with, um, the spirit of life, wear garments with yarns twisted to the left.

So, we know there's some history there and whether still today that has resonance, we don't know. Um, as a museum person, I try to glean as much information as I can by looking at textiles, you know, in themselves to see what we can see. And I think that's- that's, I've seen that as my primary objective, because I am a museum person, I spent 35 years on the Met and I love looking close up at textiles to see how they're constructed and, um, see what we can tease out of the, from the physical side of things, for most textiles that are so out of context, you know, in the ancient textiles, that we no longer can trace the histories, and especially in the Andes, where there is not tradition of text, of writing, before the 16th century, so we don't know what these things mean. But when you start to look at patterns and sequences of things, the significance is visible. We might not know exactly what it means, but I think the fact that it has significance is a physical thing.

**J F-A:** Was the construction of these textiles to achieve this luminescence related to hierarchy perhaps? So, like they were constructed for people, in higher positions, or do we know anything about that?

**EP:** In European context, for example, we would look at, um, people who were able to wear garments constructed with gold threads, for example, and there is some of that also in the Andes. There's, uh, uh, import of metallic threads that get incorporated in some garments and also some tapestries woven in that cultural colonial transition, with the coming of the Spanish and the, and the Spanish viceregal administration. But in these cases, I think, I don't know that I would associate it as much with hierarchy, although certainly access to the finest of materials might have a significance, but it might also be that they are herders, for example, who have access to the selection of the fine fibers before they either use it for other things or for or sell it in a marketplace. There are textiles, which we associate with, you know, ceremonial textiles or textiles that are part of things like dowries or marriages, or things that are used in festivals as opposed to daily life, and so there are certainly some differences in the ways in which textiles are made, um, and maybe kept also, because some of the older textiles have, uh, stronger presence of some of these techniques, although the techniques continue, um, until today as well.

**J F-A:** So, you have a background in textile conservation, which connects with your research and your- your publications, and on materiality and technique. So could you tell us a little bit more about the world of textile conservation, um, and particularly in relation to pre-contact textiles.

**EP:** Textile conservation is a growing world, because when I started working in the field, a long time ago, uh, there were very few schools, for example, to get higher degrees in conservation, at the Met in that period it was considered to be more a kind of apprenticeship. There have been a long tradition of people restoring textiles, reweaving tapestries, caring for ancient textiles, especially pre-Columbian materials, fragile things, um, or even, you know, the early Chinese ancient things from, you know, the second millennium or you're dealing with questions of things that are highly oxidized, things that will break to the touch, things that will, um, you know, have lost their color, have lost their physicality. And so, approaching them, um, is different, um, is- is more about preserving what exists as opposed to restoring what was.

Um, so there are different kinds of philosophies that- that developed, and I think one of the most important, um, components, at least in my development as a conservator, I was fortunate to have as a chief of conservation, Nobuko Kajitani, who was an extremely knowledgeable person who understood very well, the materials and processes of textiles and instilled that very much and encouraged that in my development as well. And I think that- that, um, is something that is, it's a difficult, um, it's a difficult art to become a textile conservator, you, it- it requires, uh, a certain amount of hand skills and a certain amount of science and knowledge about, um, preservation techniques and- and issues of aging and- and process and materials and, um, safety and, you know, there's so many components to what a conservators responsibility in a museum context, uh, in this day and age is.

So, I chose to really stay within the construction of textiles, how they were made, to be able to document the material and techniques. Before you can conserve a textile, you need to know what it is, you need to know if the folds and the creases that, you know, some people might want to take out and steam out and make flat and nice and pretty, were actually part of the way in which the textile was used, for example, or so if you don't understand how the textiles were used, you might make choices that are going to destroy that history. And for me, um, when I started working at the Met, very early on, I decided it was really important for me to build my scholarship and I went back to graduate school while I was working full time and did my masters and then a PhD to have that art history and archeology background, so I wanted to really combine the two, that knowledge of the textiles and understanding how to, um, contextualize them to be able to make better decisions for the preservation as well.

**J F-A:** You've talked about this in very different ways in all of your answers, but what do you think can materiality and technique tell us about a particular culture?

**EP:** To me, it's part of the basis of culture, how cultures, um, respond to their environment, and the kind of systems and knowledge that builds from understanding what certain plants can yield and how to get the fiber out of the maguey, how to take this really stiff, hard plant and make a flexible, beautiful, shiny fiber out of it, and how to use that fiber to weave, you know, constructions. So, there is a way in which cultures respond to nature, uh, it's also a social and political component. We were talking a little before about, you know, the idea of incorporating gold and silver threads in the woven cloth. There's the technique of doing that, but there's just the fact of having a culture that actually makes and uses gold as a thread for a garment. There's

significance to it, and, um, and understanding the nuances of those, uh, material choices, can give you a picture of a culture, in its totality, in its social and political and religious or spiritual components, as well as its expertise in artisanship.

**J F-A:** I also wanted to ask you about your curatorial projects. You curated two of the major textile exhibitions at the Met, and also two of my favorite exhibitions ever, *The Colonial Andes: Tapestries and Silverwork, 1430 to 1830*, and *The Interwoven Globe: Worldwide Textile Trade, 1500 to 1800*. So, could you tell us more about those experiences?

**EP:** Well, first of all, both experiences were collaborative, *The Colonial Andes* was something that I was extremely close to and then, and very much part of the proposal. I was very fortunate that, um, at the time I was working in the textile conservation department as a conservator, um, but having my PhD in art history, um, helped me to combine, um, this view of these various special kinds of textiles, which were the textiles made by, um, Andean artisans, but under the rule of the viceregal developments. So, um, I was fortunate that the director of the museum, then Philippe de Montebello, was someone who, um, appreciated the fact that there was this special subject, and I was given the opportunity to develop it along with a colleague, Johanna Hecht. So together, her specialty in silver and mine in textiles, we spent four or five years finding the objects for the exhibition. It was an incredible, uh, effort, with much travel, uh, to South America especially but also to Europe to seek pieces and collections that we could borrow. It was a really magnificent show, I'm very proud of it, and it's something that gave me the opportunity to bring together objects, which most people had never seen before, let alone even had been photographed before.

So, there was a lot, um, there were a lot of new things and ways of looking at things and the combination of the silver, which shares certain aesthetic features with the textiles, but to me, the textiles, of course, had this incredible depth of history to them. So, it was a, it was a wonderful experience to do that show, to have the scholars, we brought in the really incredible scholars to do essays for the catalog, the catalog remains, uh, and I'm very proud that the museum actually now at a certain point made a decision to, um, allow the catalog to be digitized and to be downloaded for free, so it hits open access. And, um, you can see really high-res beautiful images, and I think it really holds its place in the colonial textiles. It's not the first but it was certainly one that brought together this special focus on the textiles and, um, and silver and paintings, of course, as well.

So, then the *Interwoven Globe*, which was really fostered by Amelia Peck, the curator of *American Textiles* at the Met, um, and she put together this team and we had each with our kind of cultural specialty, so it was a working process. And I have to say it was the kind of show that became really possible because of the presence of this Antonio Ratti Textile Center, because it meant that the textiles were basically all in one place. Before that every department had its own textiles and its own storeroom, they were separate. The cataloging, uh, may or may not have been done before, and then we were able to bring it together in a, in a database so that, um, Amelia taking very much advantage of that, we had this series of meetings, weekly



meetings or monthly meetings, bringing out a group of textiles, the Portuguese pieces, the Spanish pieces, the Asian pieces, the Dutch and Indian clothes, and, you know, looking through the collection really systematically was a fantastic experience. And really Amelia, garnered the process, shepherded the process and we had the beautiful exhibition. And that was a very nice experience to- to bring some of the ideas from the tapestry show into a bigger context, into really the global context, um, because it was a shared timeframe, a little plus a little bit later. In the Colonial Andes, we looked at the transition from the Inca to the early colonial periods, and in the Interwoven Globe, we were looking at the impact of this global trade which had started in that early modern period. And all of these cross influences between cultures.

I strongly believe in, um, museum exhibitions. I think the world is changing now and the difficult to, and the expense of doing big loan shows. I mean, the difference between The Colonial Andes where we borrowed pieces from, Peru and Chile and Bolivia and, you know, Germany and even Czechoslovakia and Spain, it was a big loan show, whereas the Interwoven Globe was really centered on the Met's collection, which made a lot of it more possible. So the logistics of museum exhibitions is a complicated thing. And our world is changing, and museums are under, you know, incredible pressure these days, expenses of travel and, um, conservation are first and foremost in doing exhibitions. So, it's complicated, um, to do textile exhibitions, fragile objects, and require a lot of care, before, during and after exhibition.

**J F-A:** Thank you, Elena, for joining us today for the second season of the Fields of the Future Podcast. It's been a joy and a privilege to speak with you and to learn more about your work.

**EP:** Thank you very much, it was very interesting to talk with you too.