

# Things You Can't Live Without

S2 Episode 7 – Cornelia Funke on plastic pens, storytelling and sustainability

<b>No. of words</b>	2,582	<b>Time</b>	23:15 minutes
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**Dr Anna Ploszajski:**

Hello, and welcome to Things You Can't Live Without, the podcast where I, materials scientist Dr. Anna Ploszajski, ask a very special guest to tell us the one thing that they can't live without. We also interrogate a host of experts to find out how these items are made, where their components come from, and how the future of those items is being planned for.

In this episode, I'm delighted to be joined by global bestselling storyteller and illustrator Cornelia Funke. Welcome, Cornelia.

**Cornelia Funke:**

It's my pleasure, Anna.

**Anna:**

I'm so excited about this. And also joining us is Kellie Parker, Chief Executive Officer, Australia at Rio Tinto. Welcome, Kellie.

**Kellie Parker:**

Thank you. Great to be here.

**Anna:**

So, Cornelia, let's kick off. What is the one thing that you can't live without?

**Cornelia [00:01:00]**

It's made from plastic, metal and ink. The plastic is transparent. So, you see the black ink inside and it has a metal tip. And Kellie would probably know from which kind of metals it was made. I will solve the mystery. It is a pen.

**Anna:**

Brilliant. I can't wait to talk to you more about that. Kellie, what do you think of Cornelia's pen? Do you have a similar one yourself?

**Kellie: [00:01:15]**

Well, my pen is electronic, and I use it on my iPad, but the thing that I really miss is not being able to draw. You can write a lot of stuff, but you can't draw very well.

**Anna: [00:01:30]**

Well, in this episode, we're going to be talking about sustainability and the rehabilitation of nature, how Cornelia's pen has enabled her to conjure up many nature inspired worlds. And we'll also learn about the projects underway to regenerate nature at mine sites. So, Cornelia, your fantasy

stories have been read by millions of people around the world, especially children, and translated into more than 30 languages, which is amazing. Listeners might particularly know the Inkheart Trilogy and the Thief Lord, just to name a couple of examples. And I actually read that you first started out your career as a social worker. So what was it that brought you to writing?

**Cornelia:** [00:02:00]

I have art in my family. So all my family wanted me to study art, actually. But I thought I have to save the world. And I became a social worker. I was also very interested to work with children from not so happy families. I think still I owe them my whole career because they taught me so many things about the world that I, as a sheltered middle class child, did not know. And what I caught myself doing, though, was I drew with them, I sketched with them, I told them stories.

And at some point I thought, oh, it seems one cannot live against one's talents. I think we're all at certain tools in the toolbox of the universe. Oh, however we want to explain this. But I think you have to tell stories and you have to draw. I felt like a traitor. I have to say to all the kids, but luckily I can by now make up for it by reaching so many children all over the world and also donating to the causes I used to work for.

**Anna:**

That's wonderful. Actually, I want to hear more about your pen. Why do you work longhand in that way rather than on a laptop or on an iPad.

**Cornelia:** [00:03:15]

Well, I guess it has to do with my age. I was raised in a time when you did nothing digital. I really think that has a strong impact. And I just love to get my fingers dirty and to draw and to work with my hands.

I always say I have hungry hands, and they cannot be satisfied digitally and it's very interesting. I have many young illustrators here as visitors and they're all a little bit burned out because they only work digitally by now. Whereas I have that wonderful satisfaction to put my paints together, to choose my brushes, to choose my pens, to check the paper. And I think we all are such sensual creatures that we almost miss to be connected to the world this way. As a writer, I always prepare every book in a notebook with sketches, with handwritten notes.

**Anna:**

Beautiful.

**Cornelia:**

I think we underestimate what materials do to us. You know, and what kind of strange exchange there is.

All the illustrators here and writers are scared of AI. I am not. Because I think when you work by hand, there's a flawedness. There is, there is something surprising. I once saw an exhibit at the Getty Research Institute in Los Angeles about Rembrandt and his students. And they said, can you recognize who is Rembrandt? Whose designs are Rembrandt? Look for the lines that make no sense. They make it utterly unique and beautiful. And your hand, my hand constantly surprises me. Whereas when I open my computer, it gets serious. It looks printed. So for me, it's absolutely necessary for my creative process.

**Anna:** [00:05:00]

Do you have any of that Kellie in you? Are you a drawer or a somebody who kind of likes to work things out in long form before you get it down digitally?

**Kellie:**

I was just loved listening to you Cornelia about the creativity, the spontaneity, the innovation, that you're not sure what will evolve. And then I love it. My work is very, very different, but I love the big, complex, complicated problems because you have to think outside the box and dream about how could this be solved and you've got to use different ways of doing that. But yeah, creativity is fascinating. We need it to help drive us forward.

**Cornelia:** [00:05:45]

Yes, in many ways. There is no, Oh, it's only analogue. It's only digital. We have to also stop thinking in these boxes. I have, for example, some brilliant illustrators here who draw by hand and then they colour in digitally. And there are so many ways.

**Anna:** [00:06:00]

Yeah, absolutely. Cornelia, can you tell us a bit about where you are? You're mentioning people coming here, illustrators, writers. Tell us a bit about that.

**Cornelia:**

I'm on Etruscan Hill near Volterra, which is one of the oldest settlements still inhabited in the world. And I invite artists from all over the world to work with me. And I always say we stand on four paws of visual arts. Music, writing, and environmental activism. So, these four, I hope, are melting together here to really believe once again that the world can be an exciting and also maybe a better place one day again.

**Anna:**

Absolutely.

How did your passion for sustainability in the natural world start? I think for me, as I lived for 16 years in California, I feel like I lived in the shop window of climate change, you know, and Australia, Kellie, your reality is a similar one, especially countries where there's still a lot of wilderness, where so much of European wilderness is in a way cultivated, or at least has a long history of being entangled with humans.

To see that wilderness, and I, for example, escaped from a fire very similar to the one that just devastated Los Angeles, the Woolsey fire in Malibu. And I was evacuated for many months, and I came back to burnt trees and burnt fences, and I had a big lesson about where the world is going. I always was interested in sustainability, in environments. I was always a plant nerd. But to see it on this range, to see the droughts, to see a complete lack of management, all this ignorance towards the natural world, I could say, it brought me to waking up and also integrating it even more in my stories. Because a storyteller always tells about the world I see and I see a world where everything I really love and need for life is being threatened.

So, what I try here is to say, look at us, we don't know the alphabet of nature anymore. As Robert Macfarlane pointed out, words out of the Encyclopedia Britannica that describe trees and plants and put computer knowledge in there. Yes, fine, that's also important. But we can't lose our knowledge about the world. But then, being a creature of contradiction, I write with a plastic pen.

**Anna:**

There you go. So, well, they're not necessarily mutually exclusive and I want to come on to the materiality of our pens in a second. But Kellie, you're also switched on to the environment and sustainability. How did your journey start?

**Kellie:** [00:08:45]

I grew up in a part of Australia called the Pilbara in Western Australia. And I just feel so incredibly grateful that I did because it's a really ancient land. When I was growing up, I went to water holes and swam on the islands with turtles, but just knew that there was thousands and thousands of generations before me. I was really lucky that I went to school with probably half the school that

was Aboriginal people and just knew that there was just a different way of living. It just made me know how important nature is, which is, you know, you then ask the question, why do you get attracted to mining? We lived in the Pilbara because of mining. So to see from quite a young age, why we needed steel, we needed to have buildings, we were building bridges and we needed steel. So you needed to mine iron ore, but you had to have a full life cycle. And I learned that as a child that you might need to use the materials or the resources in the world. But how do you restore and repurpose what's there. And that's quite a lot of what I do in my job now.

**Cornelia:** [00:10:00]

How interesting, but Kellie, because I live on a hill that was mined by the Etruscans 3,000 years ago.

**Kellie:**

Yeah.

**Cornelia:**

They were very great miners, you know, copper and, and the ironworks are so famous. So I always wondered why do certain peoples on this planet, start mining and others don't? Is that maybe the big question, to start a dig in the ground or, and look for this and all to say the ground is sacred. It's our mother. We will not tear up the chest.

**Kellie:**

In my view, a life cycle that you care for what you're doing.

**Cornelia:**

Yeah. It's the take and the give and the give seems to have been forgotten in this world.

**Kellie** [00:10:45]

Yeah. Yeah. And it's so important. One of the things that I think is really rewarding is I run part of the Closure portfolio. Just an example, there's a mine in Jamaica, an old mine, it's closed now, and it mined bauxite that went to alumina refineries to then goes to make aluminium. It's about five tonnes of bauxite to three tonnes of alumina to one tonne of aluminium. And in that process, you make this slurry at the beginning of all the waste and that waste is called red mud and it just gets pumped out into a farm area. And it can be quite toxic depending on the process that they've used to extract the alumina. Jamaican bauxite red mud started in the fifties and it's all closed now. And when we took it over, we went through a process of trying to put goodness back in the soil, which we were able to figure out and then trees could grow, plants could grow.

And we had a goal that it would be 70 percent vegetation within 20 years. Well, we're over 90 now and we have like 40 different types of butterflies and all sorts of different things that have come back. And it's a real great success story. And one of the great things about Jamaica is it rains a lot, so you can grow things fast. So, but it's, that is part of the whole mining process. So you live on a hill Cornelia, like someone will be able to live near this red mud farm. Yeah. So, and I think that's the full cycle. Like we can't just think we're digging things up and you know, leaving it behind. It's got to be the full cycle of mining when you explore all the way through to close.

**Anna:** [00:12:30]

Yeah, absolutely.

You know, all these materials that we have in all of our objects, we're just borrowing them from the land, aren't we? And a full circularity system, as you say, Kellie, would be that we plan for what happens when our pen runs out or when it doesn't have no use for it anymore. Cornelia, you talked about your plastic pen as quite a negative connotation in plastic. Talk to me more about that.

**Cornelia:** [00:13:00]

So originally I always said I will never again never ever use plastic pens because I don't see the cycle I don't see how it comes back. So I always used quite expensive pens I could reload but the problem for example with a fountain pen is you cannot draw with it I know it the line it you can't do a line in a certain direction. But to go back what you have to do for drawing is not possible, right? So fountain pen is not an option. I've tried bamboo pens, so worked for a long time with luxury pens, but I always received the refills and so much plastic that one day I thought, you know what, this is absurd. This is not any better when it comes to sustainability than ordering these pens, which last quite long, actually longer sometimes than the refill. I use them because at least I feel they are honest. This is what they are. They are ink and they are plastic. And so for now, sadly, that is my solution.

**Anna:** [00:14:00]

It's tricky, isn't it? I think sustainability is so often limited by our combinations of materials and the functionality of a pen. It requires steel at the end or something metal at the end to get the hardness of the nib and to be able to draw the ink around in the way that you want. So you'll always need metal at the end. And so I suppose it's, can you have the whole pen be metal? That seems overkill maybe, but then to combine it with plastic. Yeah. It's impossible to get those two materials separated and back into the circle.

**Cornelia:** [00:14:30]

Maybe I have to go back to the quill - to the feather. Many people did for many, countless centuries. You know, it was possible and incredible art was created.

**Anna:**

Maybe it's all about wooden.

**Cornelia:**

I have wooden pencils, of course, for my drawings, but for writing, the pencil wipes, or it does not stick on a page as much as the ink does.

**Kellie:** [00:15:00]

It's so great that you're so thoughtful about the materials that you use because there's so many people aren't. It's from my perspective, I would love people to know that the phones that they're using, that they were addicted, to have aluminium and copper in them, and they can't work without either of those, and sometimes when people are talking to me about the perils of mining on their phone or messaging me with the copper and aluminium, it's like they can't make the distinction. It was like when I was growing up, people thought milk came from the fridge. Like, how do we make sure that people actually know where things come from? And that it's a society choice. If you want the latest, you are wanting more and more copper and electrification of having EV cars. And it just takes way, way more copper, a lot of copper and copper mines are very impactful on the environment.

And there's lots of research and R&D around how do we use waste piles from copper mines to extract more and be more efficient. But they're going out and finding new copper mines and starting your copper mines, it takes a long time just because they're so impactful in the environment.

**Cornelia**

What is the substitute? But that production may also be very harmful for the environment then.

**Kellie:**

I think our, you know, innovation, our creativity is about how do you use what's in the waste? What was mined kind of and put to waste that are sitting in waste piles? Like how do you actually mine them it's already part of the impact that's happened. So you get the most out of that so that we

don't have to start a new area that's pristine.

**Cornelia:** [00:16:45]

Yes. I just read a book. There's a book called waste about that waste is a very modern invention and there used to be no waste because people just couldn't afford it. Right, and it's quite shocking how young that development is, right? Maybe it's a hundred years, maybe 150, but certainly not more. And well, the plastic crisis started when I was already born.

**Anna:** [00:17:15]

Kellie, I'm really curious about your role in ensuring that we're looking after nature and that the biodiversity can continue to thrive. Even acknowledging that at the same time, our modern lives require these materials and it's our demand that is creating the need for mines in the first place. Can you take us through the process of how do you ensure that the environment and that nature is taken care of alongside mining?

**Kellie:**

Yeah, so when you apply for a mining lease, you get that from the government, what will be important for us as we apply for that is that we've done environmental impact study. So we understand what is the environment, what is the plants, the flora, fauna, how does water flow, digging holes to know what happens with water and how can you re-inject water back into that aquifer and not just pump it out down a waterway and then change a different direction of the water. And then we'll also talk to First Nations or Traditional Owners to understand what they need, like what's their cultural connections, what's their tangible archaeological history, but also the intangible cultural values of the land. So as people see landscapes differently, they see different values. So, like really understanding from them, what are their stories, the intangibles. So, we do all of that before we even say, yes, okay, this is economically valuable to mine and then ensuring that you meet your environmental licenses and continue to modernise that.

**Anna:**

Cornelia, do you have any questions or thoughts for Kellie?

**Cornelia:** [00:18:45]

Lots of thoughts, but of course, you know, it's really the thought about would humans ever consider to stop all that? I don't think we will. I think in that we are like, oh, I can do this, so I will do this. We have no morals when it comes to that, when we are curious. It's so interesting that curiosity is something that is accepted as, okay, this is how we are. You know, what Kellie describes about her work, they're trying that. Oh, we learned that by now. But I don't see that in many areas of modern life, this thinking ahead.

**Anna** [00:19:30]

Kellie, looking to the future for you, what are you most excited about in terms of looking after the planet and the biodiversity that you can influence in your role?

**Kellie**

I think that the more that we do use our curiosity and our innovation, I think we'll think outside the box. We've got a copper mine in America and we've started to mine the waste in there, half the critical minerals that the world needs in the waste.

And so one of them. You know, is tellurium. We have another little product that we can get, which is called scandium. They're very, very small, but they make things stronger. Tellurium goes onto, you know, solar panels. So it's all part of our world that we need, but it's come from the waste that's already been created. And I think if we can you know, tap into much more of that to really understand there is a lot of opportunity I think, there. I'm excited for kind of the next generation that does come into our business. You can see them asking those questions. Like, circularity is definitely part of their lives. What's primary aluminium? What's secondary aluminium? How's it

been recycled? And how do you keep reusing it? How many, because it's infinitely be able to be recycled. People are asking different questions, which I think means that they would ask different questions about the world and it feels like mining is going to be very different.

We've got a very big project going on about what's called low impact mining. So how do you actually contain all the waste and the water in the aquifer so that you don't have ongoing impacts that, you know, happen that you can see in some of the very old mines that have ongoing impacts. And I think that that thinking came about by actually sitting with Aboriginal and First Nations people who care for country in a really different way.

**Anna:**

Brilliant. And Cornelia, what are you excited to be writing next?

**Cornelia** [00:21:15]

At the moment, you know, I did the first nonfiction book on moths, because I was so fascinated by their names because our ancestors were so inventive and watching all the diversity of creatures and finding names for them to describe them. Because the world maybe it was also not that visual yet. You could not look up a photo so the name in many ways described the creature and I have a brilliant illustrator here who every day enchants me with another moth she has a portrait. So I'm very excited and what we also do with a biologist an ornithologist and a few artists we are watching the new farm we just bought and we want to do a book on the first year we have there, and that has been quite an adventure. All the things we find and we don't know.

**Anna** [00:22:00]

Yes. I love that. Well, we've come to the end of our conversation today. Thank you to both of my guests. To this episode, storyteller and illustrator, Cornelia Funke and Rio Tinto's, Chief Executive Officer for Australia. Kellie Parker, thank you both very much,

**Cornelia**

And we thank Anna.

**Kellie**

Yeah, absolutely. Thank you, Anna.

**Anna** [00:22:30]

And that brings us to the end of this episode. You can listen to more episodes of things you can't live without, wherever you find your podcasts. And don't forget to follow rates and review us to make sure that you never miss a new episode.

**–Ends–**