THE BRAILLISTS FOUNDATION

BRAILLECAST PODCAST EXTRA 35

Drawing Pictures With Your Perkins

7th December 2021

Matthew Horspool: Welcome back to Braillecast Extra, where this week we're getting into the Christmas spirit. It's a recording of a session which took place on Tuesday, 7th December 2021, entitled Drawing Pictures With Your Perkins Brailler. It's introduced by Dave Williams.

Dave Williams: Good evening and a very warm welcome back to the Braillists Foundation. I'm Dave Williams, chair of the Braillists Foundation, and it gives me great pleasure to welcome you all to our session this evening, a Masterclass on drawing pictures with your Perkins, with Kim Charlson, who is the Executive Director of the Library at Perkins.

 Kim has literally written the book, Drawing With Your Perkins, that includes step-by-step instructions for drawing all sorts of things, including animals and shapes and tonight I understand that Kim is going to show us all how we can draw some festive images with our Perkins braillers.

 So, do grab your Perkins, grab some blank paper and kick back and enjoy this session, Drawing With Your Perkins, Kim Charlson, welcome.

Kim Charlson: Thank you, Dave. I'm delighted to be here and when I received the invite to come from Matthew, I said, "I've never done drawing with your Perkins brailler via Zoom." So, this is a first for me, a first virtual seminar on drawing with your Perkins braillers and you guys are the ones that did it, so that's really terrific.

 I'm looking forward to it, I think we're going to have some fun, but I just want to give you a little background about myself and as Dave mentioned, I'm the Executive Director of the Perkins Braille and Talking Book Library, which is the equivalent of a public library. I serve primarily the State of Massachusetts and I serve about 24,000 people with library services and we also provide braille services for Maine, Vermont, New Hampshire, Rhode Island, Tennessee, North Carolina, and Washington, D.C., so we're sort of a regional braille distribution centre as well for the National Library Service for the Blind and Print Disabled. I've been the director for 20 years and just had a lot of great opportunities to promote, obviously, literacy and information access which I'm pretty passionate about, as far as accessibility and technology goes, so my staff, we spend a lot of time making sure that we're on the cutting edge as well as providing the things that patrons want to read every day. So, that's access to hard copy braille and we're just about to launch a program for a braille ereader with the National Library Service for the Blind and Print Disabled. We're very excited. I've wanted to see a refreshable braille device in our library service program for a long time and now it's about to happen for our patrons. We've had a talking book player for decades but we couldn't crack that nut as far as it went with getting an affordable braille display and it's now managed to become a reality, so very excited to be rolling that out for braille readers in our service area.

 Some of you might also know that I'm very involved in advocacy work, primarily in the United States, and I'll explain that in a second, but I am the immediate past president of the American Council of the Blind, which is one of the US consumer advocacy organisations, a membership organisation. I served as president for six years and now I'm immediate past, which seems to keep me almost as busy as being president was. I do a lot of advocacy work and represented the American Council of the Blind and now the Perkins School for the Blind on the Braille Authority of North America, which is the standard setting body for braille in the United States and Canada.

 In addition, most recently, in April of this year, I was elected as President of the North American Caribbean region of the World Blind Union. That's one of the regions of the World Blind Union, like the European Braille Union and I have been working in that role for about a half a year now and the issues are different, sometimes the same but it's a very different advocacy arena for me and I'm learning new things every day from a lot of amazing people in the international blindness world through the World Blind Union.

 So, pulling all those things together, how did I come about to write a book about drawing with your Perkins brailler? I have been a braille reader since I was a young child. About ten years old, I started learning braille. I lost most of my vision from juvenile glaucoma at around age 11. So, at that time, the treatments were not very successful and my parents were alerted ahead of time by my ophthalmologist that I probably would end up losing my vision and that they should think about getting me the special training that I needed so I could learn to read and do what a blind kid does, which I have to say, thank my lucky stars that I had an ophthalmologist that told my parents to get started right away, rather than wait until it happens, because I've seen that happen so often. "Well, you don't need to worry about it right now. It probably won't happen." And then it's always so much easier to learn before you need to pick it up.

 So, I actually learned how to read braille when I had a lot of usable vision and I had most usable vision until age ten. So, I have a lot of visual memories and I think that helped in coming up with the concept of drawing using braille. But I have to give credit where credit is due with respect to inspiring me to want to create braille drawings. There were two women to whom I dedicate my book. One of them, I never met, but she had a profound impact on me and that was a woman named Marie Porter, who wrote a book probably in the early 60s called So What About Drawing. It was a book about using braille to draw pictures. As far as I can tell, some people have been doing this for a long, long time, but I think she was probably the first to ever come up with a compilation that could be published. That book is no longer available in an accessible format, though I think it's available on the web as a PDF file. I give her a lot of credit for inspiring me.

 The other person that inspired me was my sixth grade teacher. I went to the Oregon School for the Blind from fourth grade until ninth grade and then I went to public high school and on to college and university. My sixth grade teacher was a woman who was blind and she was very involved in advocacy and a lot of other things too and I think she was a pretty significant role model for me in wanting to be involved and to make things better for other blind people and to reach out and just do things and don't accept being told you can't do something because you're blind. So that was instilled in me at a very early age and I think it reflects my commitment to advocacy and consumerism as well, that I just believe that people should have an opportunity and a chance to do what they want and to learn what they need to learn and to have a job and to have access to websites and on and on and on. There's all kinds of different things.

 So, it was really through Carol McCarl, my sixth grade teacher, who also introduced our class to the concept of drawing with your Perkins brailler and making pictures.

 I have to say that for most people who have had any experience with using braille as a way to create art or draw, the first one that they often come across is drawing a Christmas tree and that is what we're going to do today, when we get to that point, so I hope all of you who have one, have your Perkins brailler in front of you and have some paper with you, because in a few minutes, we are going to do this drawing of a Christmas tree together.

 When I learned as a child to make a Christmas tree using braille, we used the full cell as our dots, so full cell being dots 1 2 3 4 5 6. We made the Christmas tree from that. My drawing is a little different and we're going to experience that shortly, but that might be the experience that some of you have had, because, I believe, that was the drawing to which I was first introduced and that Marie Porter had for her Christmas tree.

 I just want to take a second to talk about some of the concepts in the book. I often relate my book to being like paint by the numbers. This is kind of like braille by the numbers, because there are very meticulous step-by-step, line-by-line directions for what you are supposed to do and if you follow those directions exactly to the letter, you should end up with a picture, what I would call a line drawing of something that you could show to someone sighted and they would say, "Oh, look, it's a kitty-cat or it's a dog," and those pictures are in my book, Drawing With Your Perkins Brailler.

 There's some concepts in Drawing With Your Perkins Brailler that I have demonstrated. The book starts out quite simply by just giving you some concepts with basic shapes, because there are so many varying skill sets about what some people would call tactile graphics and shapes and line drawings of that sort of thing. So, I start out just talking about shapes and making small ones and then making bigger ones, for example.

 One of my favourites is a two cell symbol for making a square in braille. I call it an ANDY, because it's the AND sign, which is dots 1 2 3 4 6 and then the next cell is a Y, dots 1 3 4 5 6. So, when they're up against each other, they look like a little tiny square and sometimes when I'm brailling at our library, we're producing a form or a questionnaire, and we want people to check a check box, I'll put little ANDYs in there instead of that 3 6, 3 6, 3 6 line that you get to mark on sometimes, because it simulates a little box that you're supposed to put a check mark in. So it makes it easy for people to find it, mark in it and do that.

 There are several other things. On the cover of my book, the braille cover, the title page has a border and I have to say that the British have in the past used the OW and O symbol next to each other. OW is dots 2 4 6, and O is dots 1 3 5. When you put those two characters next to each other, they kind of make a symbol that looks a little bit like a four-pointed star, you could describe it. In British braille books, from RNIB, I remember as a kid, they would use that symbol as a border going all the way across and then one of those symbols going down, the two symbols, down the left-hand margin, down the right-margin, then across the bottom. Then your information about your book was in between, so it was like a picture frame or something like that, a border around the braille text.

 I have always been interested in making braille aesthetically pleasing, that the layout on the page means a lot to a braille reader, that having white space is okay. You don't have to fill every single piece of braille paper with dots all over it. Sometimes having a blank space can really be helpful, in skimming, scanning down a page, where you're looking for a piece of information. So, formatting is also a tool that can be used for making braille more aesthetic, more pleasing, easier to use.

 I also illustrate concepts like perspective, which is often very challenging to convey to people who have been blind for a long time. That might be like a shadow or an animal. There is a picture in my book of an elephant and the elephant is standing, it's a side profile view and he's facing off to the left with his trunk up and you see all four legs, but the ones that are in the back are not as big as the ones that are in the front. That's what somebody who would be looking at a picture would see. All the legs are not going to appear in a profile like that or in a landscape picture as the same size. That’s perspective and that's covered in my book as well.

 So, what I've always said is that using Drawing With Your Perkins Brailler as a mechanism to teach children or adults, it gives you something that isn't A B C D E, but yet you're learning your characters and people can see a value to it. Most of the pictures in my book are full size pages and the frilly Christmas tree which is what we're going to make in a few minutes is also a full size page in the book, but the handout that I prepared for this session this evening gives you all the directions line by line. So, you could make your tree smaller and make a Christmas card with it and have the tree be on the front. So, you don't have to do it full size page, fill up 15 or 16 lines. You can make it shorter and you're going to see how that will happen in just a couple of moments here, because we're going to get started. I want to make sure that we also have time for some questions at the end.

 If you all have your Perkins brailler ready with the paper in, I think we're going to get started with drawing our Christmas tree, our frilly Christmas tree. Now, because we're all muted, I can going to provide the sound effects for what you all hopefully will be doing as we move along.

 So, the first thing you all want to have ready is you want to have rolled your paper in and you want to click down two lines so the paper is level with the top edge of the brailler. That will give us a little top space there. In the beginning of all of the pictures in my book, and I should tell you that the step-by-step, line-by-line directions are included, but I was also very adamant that I wanted to include the actual braille drawing, because sighted people have the print equivalent in their books, if they want to see what the picture is supposed to look like, so I really wanted the braille drawing to be there too, so that braille readers could have the same kind of experience.

 So, those are included and before the directions to make the drawing in each case in my book, you'll find directions to tell you what size paper and I was a little puzzled because I remember that in England you use A4 paper, which is just a smidge smaller than the 8.5x11 inch paper we use in the US but the difference is really pretty insignificant, less than I would say a quarter to half an inch. So, I didn't have to adjust the drawings at all, I believe, to make sure that they would fit.

 So, the full scale Christmas tree, if we do all the lines, would be 16 lines and I think I'm really only going to do maybe about half of them, and then show you how to finish it off at the bottom. We're probably just going to do some of the beginning and then we'll finish off our Christmas tree and then we'll open it up for questions.

 So, having said all that, I'm going to turn to my Perkins brailler and I'm going to do the first line of the drawing. We're going to take it incrementally, so the first thing we're doing, and this line is probably the hardest, is first you space 14 times and we're going to move into the middle of the page. So, let's go ahead and space 14 times.

 Alright, so you get the sound effects from me, but I'm thinking of opening it up in a few minutes to let somebody join me, so we can hear it together. So, after spacing 14 times, you will write the character which is dots 3 4 5. That's a AR sign and you will do that once.

 Then, you write the character which is dots 1 2 6, which is GH sign. So go ahead and do that and that's the end of the line, so we're going to click down to a new line, return the carriage back.

 So, I don't think that was too taxing. Line two, we're going to space 13 times.

Dave Williams: Just to let you know, Kim, Zoom is trying to be clever, once you've done your first couple of spaces, then it's ducking your audio.

Kim Charlson: It's trying to zap me out? Okay.

Dave Williams: So, if anybody's trying to count the key presses, do your own counting, rather than trying to count along with Kim.

Kim Charlson: Absolutely. So, Zoom is pre-empting me a little bit. I would definitely be curious, if you unmuted and did it along with me, if we can hear you or not, or if it does the same thing.

Dave Williams: Yes, well, I'll stay unmuted. I've got my AR sign and my GH sign on the first line.

Kim Charlson: We're about to do the second line, so that would be writing two AR signs, dots 3 4 5. I'm going to do that.

Dave Williams: Done.

Kim Charlson: Perfect, I heard you. Then we're going to write two GH signs, dots 1 2 6. Then end of line and return your carriage.

Dave Williams: I'm doing this on the back of the shopping list, so this had better be good, Kim.

Kim Charlston: Line three, space 12 times. Alright. We are going to write three AR signs, and three GH signs, dots 1 2 6. Go the new line. Now you probably see a bit of a pattern here.

Dave Williams: Yes.

Kim Charlson: This time, space 11 times. Then write four AR signs and four GH signs and go to the next line.

 On this line, line five, we space ten times. Then we're going to do five AR signs and then five GH signs.

 So, we are building our Christmas tree. Go to the new line, return your carriage and this is line six of our drawing. So, we're going to space nine times, and we're going to do six AR signs and then six GH signs.

 We have a pretty good small Christmas tree here. Maybe we'll do one more line, which would be space eight times, we're going to do seven AR signs and then seven GH signs.

 Now, go down to the next line and what I want to do is do the finishing touch and I'm going to turn my brailler around so I can follow the instructions correctly, because I'm skipping in order to make sure we have enough time.

Dave Williams: That is very neat. I now have an approximate triangular shape.

Kim Charlson: It's a triangle, it is.

Dave Williams: And a nice pattern, and you start moving your finger across the diagonals and things like that, you really do get a nice pattern going on, so, yes, aesthetically very interesting.

Kim Charlson: Yes, it is.

 So, I'm going to drop down to line 15 of the drawing and what we're going to do here, this is a little different, so this is more like what the rest of my drawings are like because there's multiple instructions.

 We're making the frilly bottom and the trunk of the tree now, so we get a little movement now.

 So, we're going to space eight times.

Dave Williams: So, we're directly below the first of the AR signs in the previous line?

Kim Charlson: Exactly.

Dave Williams: Somebody's writing in the chat that they only know Grade 1 and they're a little bit lost. Can we just repeat the dot combinations for the AR and the GH, Kim?

Kim Charlson: Right, we've only used two characters in the dot combinations. We've used the AR sign for the left side of the tree and the AR sign is dot 3 4 5, and then we're using the GH sign, which is dots 1 2 6. That is the only characters we're using at this point to do the different steps.

 In my book I do refer to them as AR sign or GH sign, but in the first line of the directions, if the symbol appears for the first time, I give the dot numbers, so that people who don't know contraction can use these drawings and follow these drawings if they know the braille patterns of dot 1 2 3 4 5 6.

 To do this line, we've spaced eight times and we are doing six AR signs, so that's dots 3 4 5 and we're going to do that six times.

 Then we write dots 4 5 6 one time. We just did that one time and then we write dots 1 2 3, which is the letter L, one time. Then we do six of our GH signs, dots 1 2 6. Then go to the next line.

 This is the last line of the drawing. We space 13 times.

Dave Williams: I'm under the fifth AR sign from the previous line.

Kim Charlson: So, it's 13 times over and you're going to write a full cell four times. That represents the trunk or the stand of your Christmas tree and that is the bottom of the drawing. So seeing those full cells at the bottom, in the second to last line, when we did dots 4 5 6 and the L, dots 1 2 3, that symbolises the trunk of the tree and then this drawing of the full cells are the tree stand in which it would be standing. So you have a short tree here.

 The drawing in the handout that you can get from the Braillists is the full size and goes down the full page, but this smaller one, you could use on a Christmas card or something like that and it gives a really nice frilly Christmas tree effect.

 So, Dave, thank you for being the audio sound a little bit so we could hear it a little better, someone brailling, and I'm happy to start taking some questions, if you'd like, and we can talk about the other drawings in the book as well.

Ben Mustill-Rose: Thank you, Kim. We've had some great feedback in the chat already, particularly around the ANDYs. Lots of people are commenting about how that's quite a nifty way of representing a square.

 We're going to go to Daniel first.

Daniel Gillen: I'm very happy to be here. I've actually been drawing with the Perkins brailler for I'd say probably 18, 19 years already, since I was in about fourth grade. I've been doing these sorts of images before, maybe not exactly this Christmas tree but I think it's wonderful and I see the shape of it and I think one of the things that's occurred to me over the years, I've actually been able to draw from very basic to extremely advanced images, even maps and filling in spaces between lines and the like.

Kim Charlson: My book kind of starts really easy and the drawings do get a lot more complex as you go through them. There's a whole section on animals and they're really pretty detailed. There's one of a bird sitting on a branch and you could tell the beak, the tail that's hanging down off the branch. There's the elephant I mentioned. In the transportation section, there is a school bus with the wheels and anything round is a little challenging to create on the Perkins brailler because it doesn't quite do it.

 So, the way I did the wheels was I made them sort of flat on the bottom because if the vehicle was parked, the wheels wouldn't be exactly flat, because that would denote a flat tyre, which we certainly don't want to show, but you have to stretch things a little bit, as far as round goes, because it really is kind of hard to do that with the configuration of the cells and the way they're laid out.

 There are so many things you can do however. There's a sail boat, for example, in the book and I show the sail boat but then I also show the water. It's a different symbol so it shows you that the sail boat is in the water, so you can even tell that the bottom part of the sail boat is below the waterline and you see the waterline. I actually use the same symbols we were brailling for the Christmas tree to denote water in the book, to show the water on either side of the sail boat.

Dave Williams: There's a question in the chat. How would you compare drawing with a Perkins versus drawing with a full page slate and stylus?

Kim Charlson: Well, I certainly would say it's easier. Anyone who's doing full cell slate and stylus, I commend them immensely, because that's a lot of work and I guess it just throws that one more permutation in there about how you have to really know your characters and you really use them differently, because of using a slate and stylus. So, I think it would be a major brain twist but it's doable.

 I was going to say, especially for Daniel, or anyone else, that Perkins published my book and there is a place on the Perkins website where we encourage people to send in drawings or there are several of them posted, that people have contributed of their own drawings. So, that's available. If anyone has a drawing and they have the step-by-step directions for such drawing, and they'd like to have it be placed on our Perkins braille drawings page, I would be happy to have you send me that information via email and again my contact information is on the handout and I can give that at the end of today's session, so people can contact me.

Ben Mustill-Rose: We're going to come to Anja in a moment or two. Thank you for that , Daniel, and thank you to Ed who asked that question in the chat. After Anja, we're going to come to Terry-Ann.

Anja Lehmann: I'm also very happy to be here this evening and to learn so much from Kim. I'm Anja from Germany and I'm currently coordinating a wonderful project with braille drawings here in Germany. We are a small non-profit organisation and we usually do completely different things and during the first lockdown here in Germany, one of our blind members got the instructions for a braille drawing and then we tried it out and we really liked it and we wanted to do something good while we couldn't go to schools and work with children personally. We got that braille drawing in English, so we asked that person whether she had more and whether we could translate her instructions into German and into our German system and she said yes and sent us lots of drawings. We got funding for a project that will run until February and we can publish drawings on our website every month. In the end, we didn't have to translate drawings from English, but we found a few people who created their own for us. So, most of our drawings are smaller, so they are good for postcards. We would be very happy to share them but the problem is that we don't have funding for a book or anything, so we don't have them in braille. We would have to translate the instructions into English, but two of us are professional translators, so that wouldn't be a problem. I would really love to share some of the drawings with you, Kim, to see what you make of them.

Kim Charlson: I would be delighted. That would be fantastic to do that, and maybe if you can translate the instructions, that would great. We could post them on the website, which is where you can find the other drawings that are available. I think I put that URL in my handout as well.

 I'm excited. I have not heard back from the folks in France yet, but I was approached about a year ago and an organisation in France is translating my book into French and I was very honoured about that, because it just seems like a real full circle to have a book about braille and using braille in French, so there's just something sort of synergistic about it.

Anja Lehmann: For us, it's interesting because we just started it because we wanted to do something good, we wanted to share something and just be able to do something that's useful after all the lockdowns. We didn't know much about it. We have three blind members of our group and I think three or four sighted people who look at each picture and we publish them if two blind people like the picture and also most of the sighted people.

 So we've decided to check them in a way that we say that we recognise what's in the picture, but not everyone has to like each drawing, because we've got so many of them that there will be something for everyone. It's just to give people an opportunity to exchange drawings and to have some sources, especially for teachers.

Kim Charlson: Your process of almost validating a drawing is very similar to what I do. When I create a drawing, I show it to several sighted people, hoping to get the answer that what I created looks like what it was in my mind and that they see that and that's important because I think part of the excitement for the blind person that creates a drawing is being able to show it to someone and have it be recognised, instead of showing it to someone and they say, "Oh, that's so cute, that's so wonderful, that's so nice," and they have no idea what it is but they don't want to hurt your feelings.

 Then I also show it to some braille readers and I ask a couple of other braille readers to take the instructions and to create the drawing and then I make sure that they did it correctly, that it made sense to them and that somebody else could look at the finished product and say, "I think I know what this is. It looks like a Christmas tree," or whatever it is. I like them to be very clear and distinct, but as some of the drawings get more detailed in my book, there is, for example, an angel in the Holidays section. There's the frilly Christmas tree, a bell and an angel and the angel is probably the hardest drawing in the entire book. It's very detailed, the wings are very frilly and the gown is very flowy, so there's a lot of detail in that drawing and you use a lot of different characters to make the different angles, so that she's got a halo and all that and it's a very intense drawing but it does take all those effects into play.

Ben Mustill-Rose: We're going to come to Terry-Ann next and then Alan.

Terry-Ann Saurmann: I have two points that I wanted to make. Number one, I've never had any vision so I don't have any visual memory and I've always had a difficult time recognising what I'm going to call three-dimensional items that are presented in two-dimensional pictures, like what we're doing here in braille but I think using your book would be helpful to someone like me to have a better understanding of that third dimension that we don't really see as a person who's just feeling something, just trying to identify something tactilely.

 The other question I have is, are there certain symbols that you would never us in making braille drawings or is there a concept so once you learn how this whole thing works, doing even more difficult pictures becomes easier because you understand the method to your madness, so to speak?

Kim Charlson: I think that's true. I don't think there's any character I wouldn’t use. One of my favourite pictures that you can do is you can make a Valentine heart, and it only requires about five, maybe six different characters, and three lines to do it and I think those show a heart, but that's a symbol that many of us have probably seen, a heart-shaped box of chocolates or a heart necklace or something like it, so that kind of symbol gives you more to reference, because you have more life experience around it.

 I've always been an advocate about tactile graphics, tactile drawing, that there should never be an assumption that just handing it to somebody, if they can't read it, that that's on them, because there really has not been enough training of blind people in how to read them, how to interpret them. That goes into the tactile graphics area as well. They teach kids in school how to interpret tactile graphics but there isn't a whole lot out there that helps blind adults to know how to interpret a tactile graphic or a picture. So, I really am an advocate for seeing more of it. The worst thing you can do in a tactile picture of graphic is get too involved and then we can't make out the distinction of what it is and then, "Don't you understand it?" "Well, no, I don't." It is absolutely not on us, it's that there really has not been the right kind of instruction for adults in particular to know how to interpret tactile graphics, in so many cases.

Ben Mustill-Rose: Thank you, Terry-Ann. We're going to come to Alan and then James.

Alan Thorpe: I have a few small points. First of all, when I started doing some of these tactile pictures, probably 30 years ago, and then I got hold of Kim's book and her excellent ideas, then we had the idea of putting some of them on sticky-back plastic. So, when it was actually punched out, the dots came up as white so they looked very visually pleasing to visitors to the Blind Society and even just visitors to our home.

Kim Charlson: That's a great idea.

Alan Thorpe: You got a very good contrast and examples of things we did were things like the Eiffel Tower. So, we got the shape of the Eiffel Tower and it looked as though it was lit up on the night sky with the black. I've also done chequers board with the same thing, so we got the black and white squares, even though they're not exactly square, but we could actually play chess and draughts on there and many, many other things. But what then got me interested was getting an embosser that could actually change into a graphics mode and move all the line spacing or the spacing between the cells and that really does bring the pictures to life.

Kim Charlson: Yes. It does. It's wonderful what you can do with a good graphics embosser and there is a limitation with the Perkins braille because it's a cell structure which doesn't fill in the lines as nicely as I wish I could do, but you're absolutely right and I love your idea of using the black plastic and writing on it and have the dots become white. I designed the Eiffel Tower drawing, probably the one you're using, for the Bicentennial of Louis Braille Conference in 2009 and I took the tactile graphic and everybody who went to that conference got one of those and it was the hot item at the conference. Everybody was so excited about it.

 I spoke at a conference in Japan and I did the Tokyo Tower as well, because it wasn't that hard to do because it's kind of similar in design to the Eiffel Tower. So, I brought a Tokyo Tower for everybody at that conference and they were very excited.

 It's great, I love your creativity.

Ben Mustill-Rose: Alan, I hope you don't mind if I chivvy you along a little bit. Do you have any other questions or points you wanted to make?

Alan Thorpe: That's fine, you can move on.

Ben Mustill-Rose: We're going to come to James and then Ellie.

James Bowden: This follows on quite nicely from what Alan was saying there. When I was experimenting with tactile graphics, when I was at school many years ago, I used to like drawing mazes, which were easy because you only have verticals and horizontals. So, my question is, do you ever do half lines, because I always did? Here's a square which is almost perfect, to the ANDY that you gave earlier, I cast that as a rectangle.

 So, if anyone wants to follow along, almost a perfect square, top line, P, dots 1 2 3 4, C, dots 1 4, L, dots 1 2 3. Now turn the roller half a turn and go back to the beginning and do L space L and then turn it up the whole line and do dots 1 4, dots 1 4, dot 1, so C C A. Now you've got full vertical lines and full horizontal lines.

Kim Charlson: Right.

James Bowden: Do you ever do that in your book?

Kim Charlson: I have done it. I didn't do it in my book because you have to manually do that. There's that extra step of doing these drawings manually on the Perkins brailler, as opposed to creating them for an embosser to mass-produce them, so to speak.

James Bowden: Yes, good point.

Kim Charlson: You can't do that in a mass production, but you absolutely can kind of fill in those broken areas for your lines by doing a half-roll. Now, the people at Howe Press, Perkins, would probably say, "Don't do that. You're not supposed to write on the in-between line," but we all know as braille users we do things like that.

Ben Mustill-Rose: Definitely. Thank you, James. Probably last, but definitely not least, we have Ellie.

Ellie Clark: I love your book. I've been using it for years. It's really handy. The sighted children in my class are always asking to borrow my brailler and the print version of Drawing With Your Perkins Braille book.

 I just wanted to ask some questions. First, how do you think of them? Do you have to do them a lot or can you just picture it in your mind?

Kim Charlson: I kind of picture things in my mind and then I start to create them and I work from there. Then I show them to people and then we tweak a little bit, because sometimes I'm off a bit in some of my concepts. It really is that I want to create something. I theoretically have never seen a spaceship but there is one in my book and people say, "Yes, that's absolutely a spaceship." I'm not sure how I knew that a spaceship looked like, but I kind of thought it had a point on the top and an antenna or something. So, they do sometimes need a little tweak, because I wasn't 100% perfect on the spaceship but it was close enough that somebody said, "Yes, looks like a spaceship, if you maybe went out a little over here," so I could get the shape a little better. So, they were done in collaboration with sighted input to make it more accurate, so that they're clearly identifiable.

Ben Mustill-Rose: Ellie, I think we've got time for one more question.

Ellie Clark: I've noticed in your book you put lots of animals but I was wondering if you'd ever tried to make characters, popular characters like Harry Potter characters?

Kim Charlson: That's a great idea. I haven't really done too much since I published the book because I have been so busy between my job and my advocacy work. There's not a lot of time for creating a lot of things, so I haven't done as much. People have been asking me when I'm going to do another book and I've said that I might have to retire to do that because I don't seem to have a lot of time.

Ben Mustill-Rose: Kim, could you give us a quick idea of where we can get the book?

Kim Charlson: You can get it from Perkins and it sells for $24.95 and Perkins has an Amazon Marketplace Store that is perkins.org/products.

Dave Williams: Excellent. Kim Charlson, you have been a delight. Thank you so much for joining us this evening. It's been a wonderful session and a really important subject. I think perhaps in the wider world something that is a little bit undervalued, the importance of being able to draw and be creative with braille in this way, so important for all sorts of reasons, if none other than to just put a little tactile Christmas tree in your Christmas cards. Who wouldn't want to do that? I certainly will be this year.

 So, thank you, Kim, and we hope that you will join us again here at the Braillists Foundation and we hope to build on this.

Kim Charlson: Thank you. I forgot to give my email address. It's kim.charlson@perkins.org. So, feel free to email me if you have questions as well.

Dave Williams: Excellent. It just remains for me to thank Ben Mustill-Rose for your help with the moderation this evening and of course all of you for all your fabulous questions. Without you, there wouldn't be any point, so we appreciate that.

 From myself, Dave Williams, chair of the Braillists Foundation, and the rest of the team, until next time, bye for now.

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 In the meantime, on behalf of everyone at the Braillists, thanks for listening and bye for now.

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